



# ELEVENTH MALAYSIA PLAN 2016-2020

ANCHORING GROWTH ON PEOPLE







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# **ELEVENTH MALAYSIA PLAN**

## **2016-2020**

**ANCHORING GROWTH ON PEOPLE**



# Foreword



A stylized, handwritten signature in black ink, consisting of several fluid, connected strokes. Below the signature is a solid horizontal line.

**Dato' Sri Mohd Najib bin  
Tun Haji Abdul Razak  
Prime Minister of Malaysia**

**The Eleventh Malaysia Plan, 2016-2020**, marks a momentous milestone in our nation's history. With 2020 now just five years away, the Eleventh Plan is the next critical step in our journey to become an advanced nation that is inclusive and sustainable.

In the last five years, although Malaysia encountered headwinds from a global economic slowdown, our economy has done extremely well with GDP growth among the fastest in the region. The quality of life of the rakyat have also improved as reflected by the increase in both per capita income and the average household income. This was made possible by the numerous reforms that were put in place by the Government to improve the quality of life of the people. Key among them were the Government Transformation Programme and the Economic Transformation Programme, underpinned by the Tenth Malaysia Plan.

Moving forward, we have to be cognisant that the global landscape is going to be increasingly challenging. We foresee greater volatility and uncertainty in the global economy as a result of the decline in oil prices, realignment of exchange rates, as well as geopolitical risks. In order to sustain our growth momentum and ensure that the rakyat continue to prosper, we need to forge ahead with greater resolve and introduce bold measures for the long-term benefit of all Malaysians.

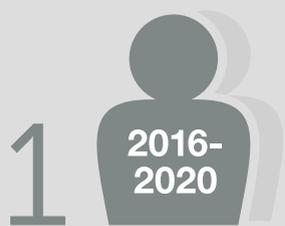
The Eleventh Plan will be premised on the Malaysian National Development Strategy that will focus on rapidly delivering high impact outcomes to both the capital economy and people economy at affordable cost. The Eleventh Malaysia Plan will disproportionately focus on the people – the *rakyat* will be the centre piece of all development efforts.

Productivity and innovation will be important pillars of the Eleventh Plan. Although in previous 5-year plans, productivity and innovation have been alluded to, we have not fully realised the intended results. The Eleventh Plan will make the difference – it contains specific strategies and programmes bounded on outcomes to unlock productivity and transform innovation to wealth. Spurring productivity and innovation will provide the basis for sustained economic growth, create new economic opportunities and ensure continued wellbeing and prosperity of the *rakyat*.

To ensure the success of the Eleventh Malaysia Plan and to attain our aspiration of an advanced nation that is inclusive and sustainable by 2020, the support, commitment, and dedication of every Malaysian is crucial. It is my belief that the true greatness of our nation comes from the enduring spirit of Malaysians, our shared values and ideals, and the great talent of our people. I urge all Malaysians to join us on the last leg of our momentous journey towards becoming an advanced nation. We will come together as a nation and we will get there together.

**1Malaysia “People First, Performance Now”**

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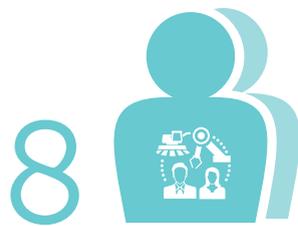
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# Anchoring growth on people

**The Eleventh Malaysia Plan, 2016-2020**, is the final leg in the journey towards realising Vision 2020. Launched in 1991, Vision 2020 envisions Malaysia as a fully developed country along all dimensions - economically, politically, socially, spiritually, psychologically, and culturally - by the year 2020. Emboldened by the great strides made in the last half decade, the Eleventh Plan reaffirms the Government's commitment to a vision of growth that is anchored on the prosperity and wellbeing of its *rakyat*. The Eleventh Plan is premised on a progressive and united Bangsa Malaysia that shares a common commitment towards building a better Malaysia for all Malaysians.

The development of the Eleventh Plan was guided by the Malaysian National Development Strategy (MyNDS), which focuses on rapidly delivering high impact on both the capital and people economies at low cost to the government. The capital economy is about Gross Domestic Product (GDP) growth, big businesses, large investment projects, and financial markets, while the people economy is concerned with what matters most to the people, which includes jobs, small businesses, the cost of living, family wellbeing, and social inclusion.

Accordingly, the Eleventh Plan is a strategic plan that paves the way for Malaysia to deliver the future that the *rakyat* desires and deserves. It represents the Government's commitment to fulfilling the aspirations of the people. The Eleventh Plan is based on the theme "anchoring growth on people" and has six strategic thrusts and six game changers that will transform ideas into reality, and address in concert the goals set out in Vision 2020 so as to catapult Malaysia towards the end state of being an advanced economy and inclusive nation.



## In retrospect

ONE OF THE  
**BEST**

Real GDP  
**6.2%**  
per annum

Malaysia has enjoyed **one of the best economic growth** records in Asia over the last five decades despite a multitude of challenges and economic shocks. The economy achieved a stable real GDP growth of 6.2% per annum since 1970, successfully transforming from a predominantly agriculture-based economy in the 1970s, to manufacturing in the mid-1980s, and to modern services in the 1990s.

# 25X

increase in per  
capita income



Malaysia rose from the ranks of a low-income economy in the 1970s to a high middle-income economy in 1992 and remains so today. Malaysia's national per capita income expanded more than 25-fold from US\$402 (1970) to US\$10,796 (2014) and is well on track to surpass the US\$15,000 threshold of a high-income economy by 2020.



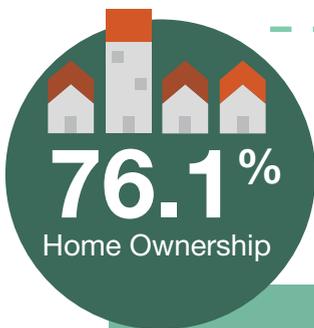


Between 1970 and 2014, the incidence of poverty in general was **reduced from 49.3% to 0.6%** while hardcore poverty has been eradicated.

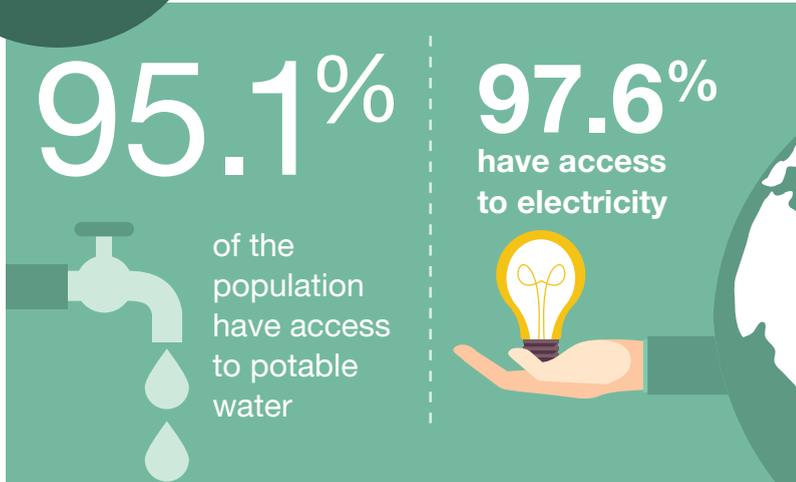
Household monthly income



The mean household monthly income increased more than 20-fold **from RM264 in 1970 to RM6,141 in 2014**. Similarly, median income increased from **RM166 to RM4,585** over the same period. Income inequality has also narrowed, as reflected by the Gini coefficient, from 0.513 in 1970 to 0.401 in 2014.



Today, Malaysians from all walks of life, irrespective of ethnicity, socio-economic background, and geographic location, enjoy a better quality of life. **Approximately 76.1% of households are homeowners**, with 75.3% of poor households owning homes as well.



Malaysians today live longer, with life expectancy increasing by more than 10 years to 75 years. **They are also better educated with 27% of the labour force having a tertiary level qualification**, a fourfold increase from 1980. Mobility has improved tremendously with better connectivity provided by extensive road, rail, and air networks.

**12<sup>th</sup>** In 2014, Malaysia was rated the 12th most competitive country among 60 countries in the World Competitiveness Yearbook by the International Institute for Management Development;

**20<sup>th</sup>** 20th out of 144 countries in the Global Competitiveness Index (GCI) 2014-2015 by the World Economic Forum; and 18th among 189 economies in the Doing Business Report 2015 by the World Bank.



**Malaysia also scores highly** as a top 20 investor-friendly destination for the period between 2014 and 2018, in the Economist Intelligence Unit's 2014 Business Environment Rankings.

All these gains were made possible by Malaysia's development philosophy, which places the prosperity and wellbeing of the *rakyat* at the heart of economic growth. This commitment can be seen in each successive development policy:

### New Economic Policy

1971-1990

**The New Economic Policy, 1971-1990**, focused on poverty eradication irrespective of ethnicity and eliminating identification of ethnicity by economic function.

### National Development Policy

1991-2000

**The National Development Policy, 1991-2000**, focused on ensuring the balanced development of major sectors of the economy and regions, as well as reducing socio-economic inequalities across communities.

### National Vision Policy

2001-2010

**The National Vision Policy, 2001-2010**, focused on building a resilient and competitive nation.

### National Transformation Policy

2011-2020

**The National Transformation Policy, 2011-2020**, maintains the people-centric focus through the New Economic Model, which sets the goal of becoming a high-income economy that is both inclusive and sustainable.

This transformation agenda is supported by the **Economic Transformation Programme**, which focuses on the 12 economic areas that are most critical to the nation's continued growth, and the **Government Transformation Programme**, which focuses on transforming areas of public service that are of greatest concern to the *rakyat*. The Government has also introduced MyNDS to strengthen implementation approach.



## The next five years

The Eleventh Plan is formulated with the *rakyat* as the centrepiece of all development efforts. The people economy will be given priority, reinforcing the Government's commitment to bring further development to the people by enriching their lives, providing people dignity, and uplifting their potential to partake in the prosperity that is generated. All segments of society must benefit from the country's economic prosperity in order to create an advanced economy and inclusive nation by 2020. In line with this, for the first time in Malaysia's history, national growth targets will include not only GDP growth and per capita income, but also household income and the Malaysian Wellbeing Index to assess the impact of economic growth on people's wellbeing.

### Average national income

The Government aspires for Malaysia to achieve an advanced economy status by 2020, with a national per capita income of

MORE THAN  
**US\$15,000**

While there will still be people who earn less than this threshold, all segments of society, irrespective of geography, ethnicity, or income level, are expected to experience an increase in their income and wellbeing.



## Challenges and opportunities

The next five years is expected to be challenging with continued uncertainties in the global economy, particularly given the prospect of low prices for crude oil and other major commodities, and the risk of a slowdown in the economies of major trading partners. On the domestic front, there needs to be greater resolve to boost productivity to drive economic growth; strengthen the fiscal position while ensuring adequate public funding to support continued economic expansion; and raise the average income and share of total income of the bottom 40% household income group (B40 households) to become truly inclusive.

The Eleventh Plan also opens up new opportunities, particularly with the establishment of the ASEAN Economic Community (AEC) of more than 600 million people in a single market, which will be a boost to trade and investment. Domestically, Malaysia will exploit its demographic dividend of a young and growing population with a median age of around 30 and a working age population of close to 70% to accelerate growth. Malaysia's multi-racial and multicultural society is another unique asset, which has yet to be exploited to its fullest in terms of its natural affiliation with Islamic nations, the People's Republic of China, India, and as a rich tourist attraction.

## Macroeconomic outlook

During the Eleventh Plan, real GDP is targeted to expand between 5%-6% per annum. The Gross National Income (GNI) per capita is expected to reach US\$ 15,690 (RM54,100) and therefore exceed the US\$15,000 minimum threshold of a high-income economy. The Plan is expected to create 1.5 million jobs by 2020, with targeted improvements in labour productivity through the continuous shift from labour-intensive to knowledge- and innovation-based economic activities. Growth will be driven by the private sector with private investment expanding at 9.4% per annum. All economic sectors will witness strong growth with the manufacturing and services sectors contributing more than 75% of GDP. The external sector is also expected to contribute positively with recovery in exports and the current account of the balance of payments is projected to remain in surplus at 2.6% of GNI. The Federal Government fiscal position

is expected to consolidate further and achieve a balanced budget by 2020. Inflation is expected to remain benign, below 3%, and the economy is anticipated to maintain full employment.

Malaysia's economic fundamentals will be strengthened to achieve sustainable growth by ensuring stable prices and exchange rates, and an adequate level of savings as a source of investible resources. The Government will also promote private consumption, as well as private investment in agriculture, manufacturing, and services to spearhead economic growth, and increase exports by improving product competitiveness, promoting services exports, and diversifying markets. More prudent fiscal management will be introduced to enhance fiscal flexibility, and measures will be undertaken to unlock the potential of productivity to ensure sustainable and inclusive growth.

**The Eleventh Malaysia Plan** used Blue Ocean Strategy (BOS) tools and frameworks, as part of the National Blue Ocean Strategy (NBOS), to formulate national strategies that are high impact, low cost and able to be rapidly implemented. BOS is about creating uncontested market space by simultaneously pursuing differentiation and low cost. For businesses, this means delivering high value to customers while lowering costs to the business. For governments this means rapidly delivering high value to the people at low cost to the government. One key BOS tool used in the formulation of the Eleventh Plan was the strategy canvas – a diagnostic and action framework for visualising strategies. The canvas depicts the current situation and compares it to the new strategic direction the Government will take in the Eleventh Plan.

# Six strategic thrusts and six game changers

**Moving forward**, the Eleventh Plan provides a critical platform for the country to make vital policy shifts and invent new approaches to address new and existing challenges. It cannot be business as usual if Malaysia is to make the transition to an advanced economy and inclusive nation in the space of the next five years.

## Strategic thrusts

The Government has defined six strategic thrusts to help Malaysia stay ahead of the challenges and opportunities of the fast-changing global and political landscape. These thrusts aim to comprehensively address the end-to-end needs of the *rakyat* and the nation.

## Game changers

The Government has also identified six game changers, which are innovative approaches to accelerate Malaysia's development, that once successfully applied, will fundamentally change the trajectory of the country's growth.

Four of these game changers are critical to the development of an advanced economy – they aim to unlock productivity for accelerated sectoral growth; unleash innovation to generate new sources of revenue; harness TVET for the transition to a higher-skilled workforce; and develop cities as a source of competitiveness. To ensure that all Malaysians are able to participate in and benefit from this growth, the Government will raise the income and wellbeing of the B40 households. Finally, the Government will embark on green growth to shift the paradigm of sustainability from a narrow focus on natural assets, to include consumption and production processes in all sectors and households.



## Six strategic thrusts



**Enhancing inclusiveness towards an equitable society**

**Inclusivity has always been a key principle in Malaysia's national socio-economic development agenda, and a fundamental goal of the New Economic Model. This commitment to enable all citizens – regardless of gender, ethnicity, socio-economic level, and geographic location – to participate in and benefit from the country's prosperity, is anchored on a belief that inclusive growth is not only key to individual and societal wellbeing, but also critical for sustaining longer periods of solid economic growth.**

Towards this end, the Government is committed to ensuring equitable opportunities for all segments of society, in particular the B40 households. All Malaysians, and in particular vulnerable groups will benefit from better access to quality education and training, efficient infrastructure and social amenities, better employment and entrepreneurial opportunities, as well as wealth ownership. Rural areas will be transformed with improved connectivity, mobility, and a conducive business environment. All households will witness an increase in income, and the B40 households will be elevated towards a middle-class society. The status of the Bumiputera economic community will be further enhanced.



**Improving wellbeing for all**

**The Government has always adopted a balanced development approach that gives equal emphasis to both economic growth and the wellbeing of the *rakyat*. Wellbeing refers to a standard of living and quality of life that addresses an individual's socio-economic, physical, and psychological needs. Wellbeing is essential to enhancing productivity and mobility, while simultaneously strengthening social cohesion and national unity.**

The Government will improve the wellbeing of all Malaysians – regardless of socio-economic background or geographic location. Every Malaysian will have equal access to quality healthcare and affordable housing. Neighbourhoods and public spaces will be safer, allowing the *rakyat* to have peace of mind and for communities to thrive. Sports and physical activity will become an integral part of life, with most, if not all Malaysians embracing a healthy lifestyle. Most importantly, there will be greater social integration leading to a more united and cohesive Malaysian community.



**Accelerating human capital development for an advanced nation**

**Human capital development is a critical enabler for driving and sustaining Malaysia's economic growth and supporting the transition of all economic sectors towards knowledge-intensive activities. An efficient and effective labour market is also necessary to attract investments into Malaysia and enable everyone to participate in and enjoy the benefits of economic growth.**

The Government will improve labour productivity and create more job opportunities that require highly-skilled workers. Technical and Vocational Education and Training (TVET) will shift towards industry-led programmes to produce the skilled talent to meet industry needs. The existing workforce will have many opportunities to continuously enrich and develop themselves, so as to stay relevant in the changing economy. Above all, the quality of education will be raised to develop talent with both the knowledge and skills, and ethics and morality, to thrive in a globally competitive and dynamic environment.



### Pursuing green growth for sustainability and resilience

**Green growth refers to growth that is resource-efficient, clean, and resilient. It is a commitment to pursue development in a more sustainable manner from the start, rather than a more conventional and costly model of ‘grow first, clean up later’. A reinforced commitment to green growth will ensure that Malaysia’s precious environment and natural endowment are conserved and protected for present and future generations.**

Malaysia’s green growth strategy will lead to better quality of growth, strengthened food, water and energy security, lower environmental risks and ecological scarcities, and ultimately better wellbeing and quality of life. It will mean significant reduction in greenhouse gas emissions and improved conservation of terrestrial and inland water, as well as coastal and marine areas including its ecosystems. Sustainable consumption and production practices will increase the adoption of energy-efficient and low carbon buildings, transport, products, and services. Climate change adaptation measures and disaster risk management, as well as the protection and conservation of natural resources, including biodiversity, will be intensified to protect the nation and its development gains.



### Strengthening infrastructure to support economic expansion

**Infrastructure development ensures that the *rakyat* have access to essential amenities and services such as transport, communications, electricity and clean water. Better integration of different transport modes will create seamless movement for people and goods. Moreover, an efficient infrastructure lowers the cost of doing business, which in turn improves national competitiveness and productivity. Good infrastructure is therefore the foundation of social inclusion, economic expansion, and growth.**

New investments in road, rail, and air services will be balanced with efforts to improve the productivity, efficiency, and service levels of such infrastructure. Digital access will be increased through both broadband infrastructure expansion and initiatives to ensure their affordability. Efficiency of the logistics sector and trade facilitation will be enhanced, making Malaysia the preferred logistics gateway to Asia. Expansion and investment in new water and sewerage networks and treatment capacity will continue. Emphasis will also be placed on improving the security and reliability of the energy sector by addressing both supply-side and demand-side measures.



### Re-engineering economic growth for greater prosperity

**Robust economic growth is crucial to ensure that the aspiration of becoming an advanced economy is attained. A strong and broad-based economy, producing high-value goods and services, will generate the high-paying jobs associated with an advanced nation. The economy must be placed on a solid foundation to withstand external shocks and generate undisrupted prosperity for the people.**

All economic sectors will migrate into more knowledge-intensive and high-value added activities. In the services sector, there will be a shift towards modern services, which include Islamic finance, ecotourism, ICT, the creative industry, the halal industry, and oil and gas. The manufacturing sector will shift towards more diverse and complex products in three catalytic subsectors, namely chemicals, electrical and electronics, and machinery and equipment. Agriculture will be modernised by promoting sustainable practices and adopting modern farming technology to generate high-income. Growth across all economic sectors will be supported by productivity improvements, innovation, better talent, and greater internationalisation.

## Game Changer

# Unlocking the potential of productivity

### Why is productivity important for Malaysia?

In the past, Malaysia's economic growth has been predominantly input-driven, supported by private investments in industry and public investments in infrastructure, utilities, as well as in schools and hospitals. Despite efforts to improve productivity, Malaysia continues to lag behind many high-income economies. For example, Malaysia's labour productivity level was 32% that of the United States' and 56% that of South Korea's in 2013. While Malaysia will continue to boost private investment and undertake public investment during the Eleventh Plan, it will place greater emphasis on increasing productivity to achieve a more sustainable, inclusive, and high rate of economic growth.

### What will success look like?

During the Eleventh Plan, labour productivity will reach RM92,300 in 2020 from RM77,100 in 2015. In addition, sectoral growth will accelerate due to improvements in productivity.

### How will this be achieved?

Malaysia's approach to productivity will shift, from primarily Government-driven initiatives at the national level to targeted actions across the public sector, industry players, and individual enterprises, with champions identified to role model change and ensure buy-in across stakeholders. Broad-based initiatives will be developed and tailored for each sector with targets set and monitored. At the national level, productivity-linked incentives will be introduced and regulatory reforms will be accelerated. At the industry level, industry champions will spearhead industry-specific productivity initiatives, while at the enterprise level, incentives and upskilling programmes will be provided. Collectively, these strategies will produce a set of major shifts as laid out below.

	From	To
<b>Approach</b>	Fragmented productivity initiatives, typically at national level	Focused and comprehensive strategies at all levels – national, industry, and enterprise
<b>Champion</b>	Led by Government	Spearheaded by industry champions and industry associations, and supported by Government via the National Productivity Council
<b>Industry focus</b>	Focused on manufacturing sector and selected services subsectors	Covers all sectors, including agriculture, construction and the public sectors
<b>Program design</b>	Generic programmes without clear targets ----- Incentives not linked to performance	Programmes closely aligned with industry needs as per relevant industry master plan ----- Programme incentives linked to outcomes
<b>Regulation revamp</b>	Little to no linkages between regulations or policies with productivity	Linkages established between government regulations or policies with productivity
<b>Oversight</b>	Oversight only at the national level	Increased oversight across enterprise, industry, and national level

## Game Changer

# Uplifting B40 households towards a middle-class society

### Why is uplifting the B40 households important for Malaysia?

Today, there are 2.7 million B40 households with a mean monthly household income of RM2,537. As Malaysia continues to grow, the B40 households should not miss out on the opportunities that come with national prosperity. Allowing the B40 households to remain in their current socio-economic status will create social costs for all Malaysians, as it reduces the number of skilled workers needed to grow national output, perpetuates urban inequality, and limits the growth potential of rural and suburban areas.

### What would success look like?

All B40 households regardless of ethnicity will be given greater focus, especially the urban and rural poor, low-income households, as well as the vulnerable<sup>1</sup> and aspirational<sup>2</sup> households. The size

and composition of middle-class society will grow to 45% by 2020. The mean income of the B40 households will double to RM5,270 in 2020 from RM2,537 in 2014. More B40 households will have family members with tertiary education, from 9% in 2014 to 20% in 2020. The income share of the B40 to national household income will also increase from 16.5% in 2014 to 20% in 2020.

### How will this be achieved?

The Government will implement strategies to raise the income and wealth ownership of the B40 households, address the increasing cost of living, and strengthen delivery mechanisms for supporting B40 households. The Government will also introduce the Multidimensional Poverty Index (MPI) to ensure that vulnerability and quality of life is measured in addition to income. The major shifts that will occur are set out below:

	From	To
<b>Approach</b>	Lifting B40 households above the poverty line through improved income levels and assistance with living costs	Uplifting B40 households to middle-class society by further improving income levels and wealth creation, as well as increasing education and skill levels
<b>Scope</b>	Assisting B40 households with individual micro-enterprises Focus on developing micro-entrepreneurship and economic activities in low-value, traditional industries	Fostering community and social-based enterprises in the B40 community, in addition to individual enterprises Building capacity to participate in high-productivity, innovative, and creative economic activities
<b>Characteristics</b>	B40 households have low wealth and non-financial asset ownership, and are easily affected by economic shocks B40 households are highly reliant on government assistance	B40 households are able to save and build wealth including through non-financial asset ownership, making them more resilient to economic shocks B40 households are independent and rely less on government assistance programmes

<sup>1</sup> Vulnerable households refer to households with income between Poverty Line Income (PLI) and 2.5 times PLI.

<sup>2</sup> Aspirational households refer to households with income between 2.5 times PLI and national mean income.

## Game Changer

# Enabling industry-led Technical and Vocational Education and Training (TVET)

### Why is TVET important for Malaysia?

Under the Eleventh Plan, 60% of the 1.5 million jobs that will be created will require TVET-related skills. Meeting this demand will require Malaysia to increase its annual intake gradually from 164,000 in 2013 to 225,000 in 2020. Yet, the challenge is not merely about numbers. Industry feedback consistently reveals a disconnect between the knowledge, skills, and attitudes these graduates possess, and what is required in the workplace.

### What would success look like?

An effective and efficient TVET sector is one where:

- Supply matches demand, and there are robust quality control mechanisms which ensure that all public and private institutions meet quality standards;
- Industry and TVET providers collaborate across the entire value chain from student recruitment, through to curriculum design, delivery, and job placement; and
- Students are well-informed of the opportunities that TVET can offer and view TVET as an attractive pathway. Students also have access to a variety of innovative, industry-led programmes that better prepares them for the workplace.

### How will this be achieved?

Achieving these aspirations will require harmonising and streamlining how the system currently operates to reduce fragmentation across the various public and private stakeholders. Furthermore, efforts will be made to encourage industry-led interventions and programmes as they are the stakeholders best placed to ensure that the supply of graduates meet their requirements. A summary of the major shifts that will be undertaken are set out as follows:

	From	To
Governance	<p>2 Accreditation Agencies (MQA and DSD) with different sets of qualifications</p> <p>Different quality rating systems for public and private TVET institutions, depending on which Ministry the institution is registered with</p>	<p>Single qualification system adopted by both MQA and DSD</p> <p>Single rating system for both public and private TVET institutions</p>
Programme delivery	<p>Design and delivery of curriculum led by individual TVET institutions or Government</p> <p>No specialisation among TVET institutions</p>	<p>Design and delivery of curriculum led by industry, in partnership with TVET institutions and Government</p> <p>Institutions to specialise in and create Centres of Excellence in niche areas of expertise</p>
Capacity	<p>164,000 intake in 2013</p>	<p>225,000 intake per annum in 2020, by maximising use of existing institutions</p>
Profile	<p>Limited recognition and low premium</p>	<p>Career of choice for students</p>

## Game Changer

# Embarking on green growth

### Why is green growth important for Malaysia?

Malaysia, like many countries across the world, is grappling with the challenge of balancing a growing population and demand, with a natural environment that is increasingly under stress. In the global context of increasing intensity and frequency of extreme weather events, adopting green growth has now become an imperative for Malaysia. It represents Malaysia's commitment to renew and, indeed, increase its commitment to the environment and long-term sustainability.

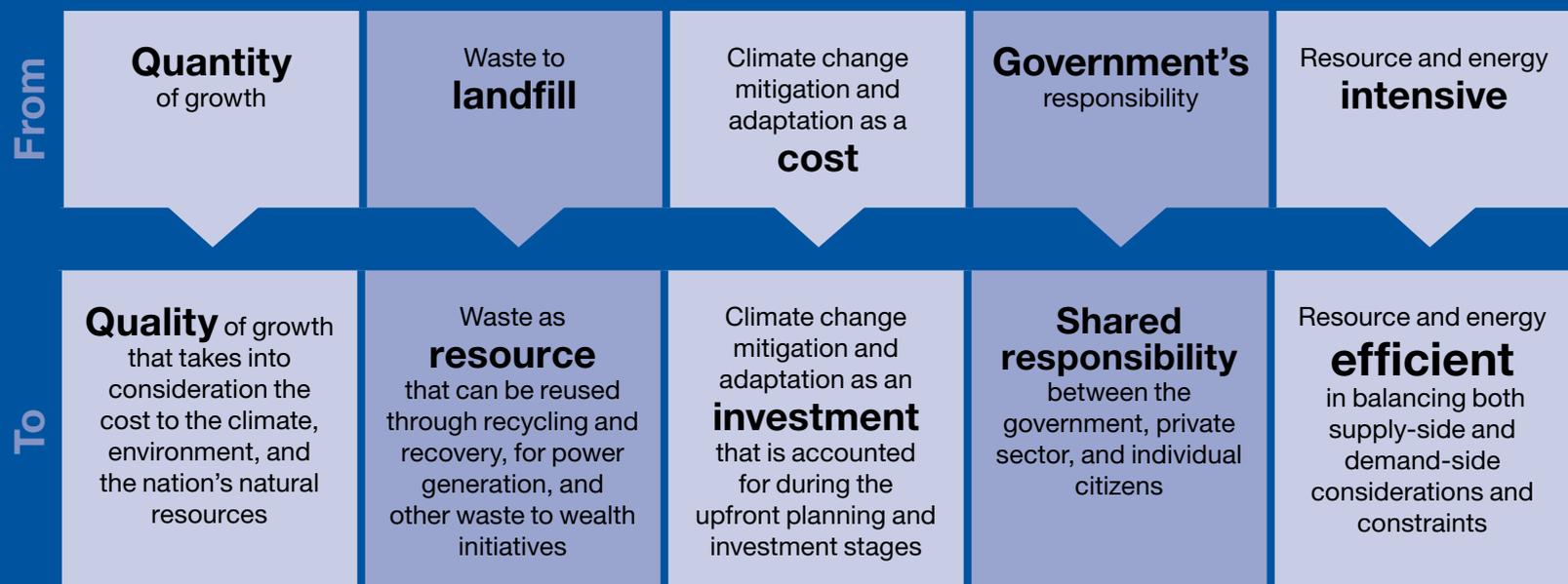
### What will success look like?

A successful green growth trajectory will ensure:

- Detrimental impact of socio-economic activity on environmental systems is reduced;
- Natural capital, including forested areas, biodiversity, and water resources as well as its ecosystems, is valued and sustainably managed;
- Development gains are protected, thus ensuring wellbeing of people across generations; and
- Energy use is efficient and renewable energy is widely used.

### How will this be achieved?

Achieving these aspirations requires a fundamental shift away from a 'grow first, clean up later' development model towards one that views resilient, low-carbon, resource-efficient, and socially inclusive development as an upfront investment that will yield future gains over multiple generations to come. This requires fundamental changes across every major dimension including how policy is determined, how institutions are regulated, how responsibilities are shared, and how people value their environment.



## Game Changer

# Translating innovation to wealth

### Why is innovation important for Malaysia?

Innovation is a key driver for economic growth as it raises productivity through new or improved processes, technologies, and business models. In addition, innovation can create additional sources of revenue through differentiated products and services that serve unmet customer needs. As Malaysia continues to move towards a high-value, knowledge-based economy with a strong focus on the services and manufacturing sectors, innovation will be crucial to raise the overall efficiency and thus productivity of each sector.

### What will success look like?

In the enhanced innovation ecosystem, there will be greater collaboration and integration across industry, academia, and communities. Research will be closely aligned with industry demand, and the private sector will be active partners in the research, development, commercialisation, and innovation (R&D&C&I) process by contributing funds, expertise, and other resources. Communities

will be actively engaged in addressing social issues through a whole-society approach in the provision of social services. There will be a greater return on investment from innovation.

### How will this be achieved?

The Eleventh Plan will focus on strengthening relational capital by improving collaboration among all stakeholders. Innovation will be targeted at both the enterprise and societal level, instead of previous efforts which focused primarily on national-level initiatives. At the enterprise level, initiatives will enhance demand-driven research, improve collaboration between researchers and industries, and encourage private investment in R&D&C&I. At the societal level, communities will be encouraged to provide input into social service delivery mechanisms, while a social financing model will be developed to assist communities to fund new initiatives. Collectively, these strategies will produce a set of major shifts as set out in the table below:

	From	To
<b>Enterprise innovation</b>	<p>Collaboration between industry and research institutes is limited, resulting in R&amp;D output that is not linked to industry demand</p> <p>Investments in R&amp;D have low returns and do not drive competitiveness and productivity for industry</p>	<p>Better partnerships between industry and researchers, with industry helping to shape research to ensure relevance to business, and contribute ideas, infrastructure, tools, and expertise</p> <p>Integrated R&amp;D&amp;C&amp;I initiatives generate high return on investment over time and stimulate productivity growth</p>
<b>Social innovation</b>	<p>High investments in social services but delivery is ineffective</p> <p>Communities remain dependent on the government</p>	<p>Focus on streamlining social services delivery by incorporating feedback from the community in line with the “whole-society approach”</p> <p>Delivery supported by a Social Financing Model and outcome-based funding to provide communities with avenues to invest in innovative initiatives</p>

## Game Changer

# Investing in competitive cities

### Why is investing in cities important for Malaysia?

Cities have always played an important role in a nation's growth by providing investment and trade opportunities, as well as improving connectivity with rural or suburban areas. Today, global competition for investment and talent is increasingly between cities, making it imperative to invest in cities in order to attract and retain investment and talent. Kuala Lumpur, the largest city in the nation, is expected to contribute 14.8% of GDP in 2015. As Malaysia aims to re-engineer and spur economic growth, the development and renewal of cities will be crucial to create nodes for strong economic agglomeration.

### What will success look like?

By 2020, four major cities in Malaysia will have undergone a step-change in their economic growth, importance as talent hubs, and liveability. City residents will be able to afford urban housing, have adequate public transportation systems, enjoy green and open spaces, and have access to economic opportunities that will enable them to provide their children with a better future. While these four cities – selected based on their strong fundamentals – will serve as pioneers, the transformation will be expanded to other cities over time. These cities will serve as role models for other cities in the country and region.

### How will this be achieved?

City Competitiveness Master Plans will be developed for four major cities as a start, based on key principles that increase liveability and stimulate economic growth. These include creating density to increase efficiency; expanding transit-oriented development to enhance mobility; and strengthening knowledge-based clusters to facilitate agglomeration and innovation. These master plans will take into account each city's competitive advantages, and will be formulated by the respective local authorities in consultation with the private sector and civil society. The major shifts that this game-changer will produce are summarised in the following chart.

	From	To
Economic density	Economic density in cities is unplanned and organic, resulting in lower productivity	Increased economic density to enhance productivity
Urban form	Uncontrolled and automobile-focused sprawl	Transit-oriented development to increase use of public transportation and reduce reliance on personal vehicles
Resource usage	Resource use not streamlined, leading to high usage of natural resources	Efficient waste management through guidelines on resource use and effective enforcement
Housing	New developments are expensive and exclusive with limited affordable options	Affordable and quality housing is accessible to targeted segments of the society
Industry focus	Current industries are predominantly labour- and space-intensive industry	Growth of knowledge-intensive industries with efficient use of space
Role of local authorities	Local authorities focused on licensing, enforcement, and provision of basic services	Local authorities as strategic drivers of local economic and social development

# Transforming public service for productivity

To support the delivery of the six strategic thrusts and six game changers, the Government is committed to transforming the public service by becoming more citizen-centric and enhancing the productivity, efficiency, and effectiveness of service delivery. The aspiration is to deliver public service in a less bureaucratic, hierarchical, and centralised manner; with talent that is multi-skilled; and a range of service offerings that is more accessible and innovative. To achieve these outcomes, the Government has identified five focus areas:

- **Enhancing service delivery with citizens at the centre** by eliminating unnecessary bureaucratic processes, expanding the outreach of its services, and increasing accountability;
- **Rationalising public sector institutions for greater productivity and performance** by reducing overlapping roles and functions among agencies, right sizing the public service, and introducing an exit policy for underperformers;
- **Strengthening talent management for the public service of the future** by providing a more conducive working environment including flexible work arrangements, empowering ministries and agencies, and upgrading public sector training;
- **Enhancing project management for better and faster results** by improving the process of project selection and resource allocation, establishing dedicated project implementation teams, and creating a pool of professional project management personnel; and
- **Capitalising on local government for quality services at the local level** through greater engagement with local community and NGOs, expanding the outreach and quality of service, and further empowering local authorities in terms of capacity and capability.

# Malaysia beyond 2020

The Eleventh Plan not only marks the culmination of a 30-year journey towards Vision 2020; it also sets the stage for the next horizon of growth. Post-2020, the challenge will be to raise the bar even higher on the country's growth prospects along three dimensions, namely economy, people, and environment.

The vision is for all Malaysians to have an unshakeable national identity and clear moral compass. The country will be governed by trusted and independent executive, legislative, and judicial institutions that protect all Malaysians equally. Malaysians will have a government that delivers and is led by leaders with integrity and conviction who embrace the concept of *amanah*. Malaysia will punch above its weight in the international arena, both as a strong independent nation and through prominent Malaysian thought leaders in various fields.

The economy will be progressive, inclusive, and adaptable for the future, with highly productive world-class cities and thriving rural areas. All Malaysians will be able to participate in and benefit from the country's growth, and enjoy an elevated state of wellbeing. Malaysians will be passionate stewards of the environment and no longer see environmental protection as a trade-off to a strong economy, making Malaysia a truly beautiful place to live for all.

The aspirations described above are neither exhaustive nor conclusive, but are intended to set in motion the prospect for further engagement and serious deliberation. Essentially, Malaysians envision a strong sovereign nation that is progressive and inclusive and for the people to treasure unity and celebrate diversity.

# Conclusion

The Eleventh Plan is significant as it will be the last five-year plan before Vision 2020 is achieved. It provides a crucial platform to ensure that Malaysia transitions to an advanced economy and inclusive nation. Towards this end, the Eleventh Plan has been formulated with the *rakyat* as the focal point of all development efforts – to enrich their lives, raise their dignity, and enable them to partake in the country's economic prosperity. Six strategic thrusts and six game changers have been defined to break the country out of "business as usual" practices and set Malaysia on an accelerated growth trajectory.

The Eleventh Plan strives for a future that is built on sound macroeconomic policy, inclusiveness so that no Malaysian is left behind, improved wellbeing for all, human capital development that is future-proof, green and sustainable growth, infrastructure that supports economic expansion, and a citizen-centric public service with high productivity. Collectively, these improvements will ensure that everyone, regardless of gender, ethnicity, socio-economic status and geographic location, can live in a truly harmonious and progressive society that bears the mark of an advanced economy and inclusive nation.



# Strengthening macroeconomic resilience for sustained growth

## **Overview**

**Highlights**  
**Tenth Malaysia Plan,**  
**2011-2015: Achievements**

**Looking back**  
**Tenth Malaysia Plan,**  
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External environment

Domestic economy

Issues and challenges

**Summary of**  
**macroeconomic**  
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**Eleventh Malaysia Plan,**  
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**Macroeconomic**  
**prospects**  
**Eleventh Malaysia Plan,**  
**2016-2020**

External environment

Multidimensional goals

Macroeconomic strategies  
to strengthen economic  
fundamentals

Domestic economy

**Conclusion**



## Overview

The economy continues to be resilient in the face of global economic uncertainties which present risks to a relatively small yet open economy such as Malaysia. The nation has weathered several economic shocks in the past, mainly due to solid fundamentals. Going forward, economic fundamentals will continue to be strengthened-robust domestic demand, a diversified economic base, large domestic savings, sustainable fiscal position, low inflation and a sound financial system will ensure resilience against external risks and uncertainties. Stable economic growth will also provide a conducive environment for businesses and investment in the long-term.

**During the Tenth Malaysia Plan, 2011-2015**, the Malaysian economy expanded at a steady pace despite mixed performance globally. Real Gross Domestic Product (GDP) is estimated to expand by 5.3% per annum with nominal per capita Gross National Income (GNI) expected to increase by 5.8% from RM27,819 (US\$8,636) in 2010 to RM36,937 (US\$10,196) by 2015. Between 2009 and 2014, the average monthly household income expanded faster at 8.8% per annum. Growth was driven by strong domestic demand, particularly from increased private investment, and a diversified economic base which softened the impact of a challenging external environment. Due to the steady expansion of the economy, the *rakyat* enjoyed improvements in income distribution and low unemployment at 2.9%.

**During the Eleventh Malaysia Plan, 2016-2020,** the Government will continue to strengthen Malaysia's economic resilience to withstand future economic challenges. The economy is expected to grow at a rate of 5-6% per annum based on sustained domestic demand and increasing contribution from the external sector. In addition, continued structural reforms to strengthen the foundation for economic expansion, including innovation and productivity improvements, will provide further impetus for growth, higher national per capita and household incomes as well as increased wellbeing of the *rakyat*. Monetary and fiscal policies will be implemented to ensure stable prices, exchange rates, and interest rates. Private sector investment will be encouraged to modernise key economic sectors, and the services sector in particular will pivot to focus on high-value, knowledge-intensive services. The Federal Government will balance its fiscal position by 2020 by strengthening the tax base and improving the decision-making process of development allocation for proposed programmes or projects. Exports will be increased by improving product competitiveness, promoting exports of services, and diversifying markets, thus maintaining a surplus in the external account. Productivity improvements through enhanced capital efficiency and the contribution of Multi-Factor Productivity (MFP) will also be a key driver of the nation's economic growth within the Eleventh Plan.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements

**5.3%**

Average real GDP growth compared with world GDP growth at 3.6%

**Real GDP growth**

**RM36,937**

National per capita income in 2015 in current prices

**Per capita income**

**RM6,141**

Average monthly household income in 2014 from RM4,025 in 2009

**Average household income**

**7.1%**

Average real private consumption growth

**Private consumption**

**RM162 billion**

Average private investment in current prices

**Private investment**

2.0%

Ratio of current account of BOP to GNI in 2015

Current account of the balance of payments

3.2%

Ratio of fiscal deficit to GDP in 2015

Fiscal deficit

29.8%

Ratio of MFP to real GDP growth with average MFP growth of 1.6%

Multi-Factor Productivity (MFP)

2.5%

Average annual inflation rate

Inflation

2.9%

Full employment expected in 2015

Unemployment

# Looking back

## Tenth Malaysia Plan, 2011-2015: Progress

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Real GDP is estimated to expand by 5.3% per annum on the back of increasing domestic demand, supported by solid economic fundamentals and a sound financial system.

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During the Tenth Plan, Malaysia's economy grew on the back of increased domestic demand, particularly private investments in the services and manufacturing sectors. Real GDP is estimated to expand by 5.3% per annum during this period, exceeding global GDP growth of 3.6%, and growth of emerging market and developing economies at 5%. The services sector in particular is expected to increase its contribution to GDP - estimated to reach 53.8% in 2015 from 51.2% in 2010.

### External environment

The world economy expanded by 3.6% per annum from 2011 to 2014, characterised by mixed performance of major economies. The economies of the five major member countries of the Association of Southeast Asian Nations (ASEAN-5) grew by 5.1%, the United States of America (US) by 2.1% and Japan by 0.7%, attributed to improved labour market conditions, strong domestic demand and encouraging exports. However, the economies of the People's Republic of China (PRC) decelerated to 8% and the Euro Area to 0.3%.

World trade expanded by 4.1% per annum, supported by steady consumer spending in the US and other advanced economies, coupled with sustained export performance in emerging market and developing economies. Meanwhile, world inflation softened, averaging at 4.2% because of the substantial output gap in the advanced economies and falling energy prices.

The final year of the Tenth Plan is expected to be challenging with persistent economic risks, among others, fiscal uncertainties in advanced economies, softening of commodity prices, shifting US monetary policy, economic rebalancing of the PRC and geopolitical tensions.

### Domestic economy

Despite mixed global economic performance, Malaysia's economy expanded at a steady rate supported by strong domestic demand and solid economic fundamentals. The diversified economic base and sound financial system also softened the impact of the challenging external environment.

### Aggregate demand

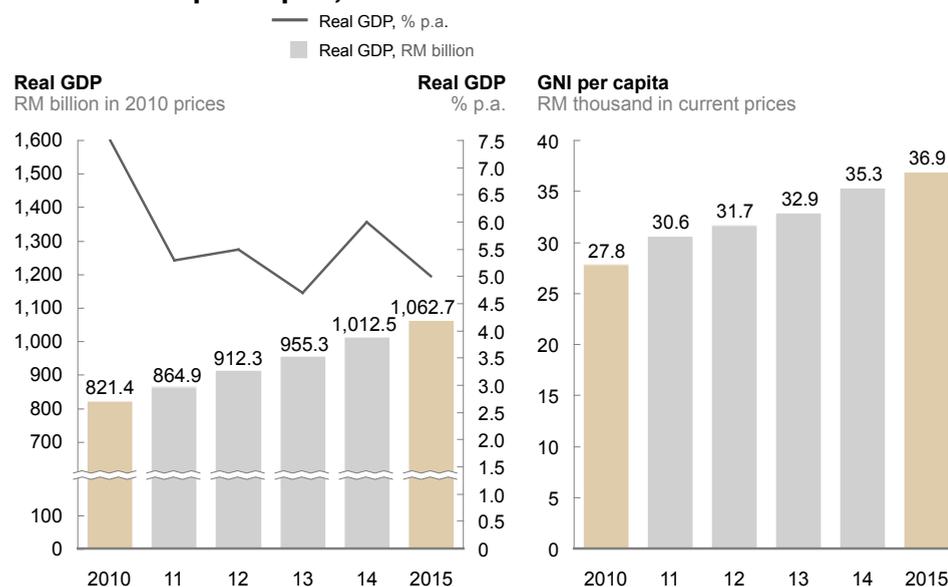
The GDP is estimated to expand by 5.3% per annum in real terms during the Tenth Plan while nominal per capita GNI is expected to increase by 5.8% per annum from RM27,819 (US\$8,636) in 2010 to RM36,937 (US\$10,196) by 2015, as shown in Exhibit 2-1. This is translated to an increase in average monthly household income at 8.8% per annum from RM4,025 in 2009 to RM6,141 in 2014<sup>1</sup>.

The economy was driven by strong expansion in domestic demand, mainly from **private investment** activities. Real private investment is estimated to record a double-digit growth of 12.6% per annum during the Plan period, as shown in Exhibit 2-2, driven by capital spending, particularly in the services and manufacturing sectors. Its contribution to GDP is expected to

<sup>1</sup> Based on Household Income Survey in 2009 and Household Income and Expenditure Survey in 2014 undertaken by the Department of Statistics Malaysia

Exhibit 2-1

## GDP and GNI per capita, 2010-2015



Notes: Based on GDP in 2010 prices  
Source: Economic Planning Unit and Department of Statistics Malaysia

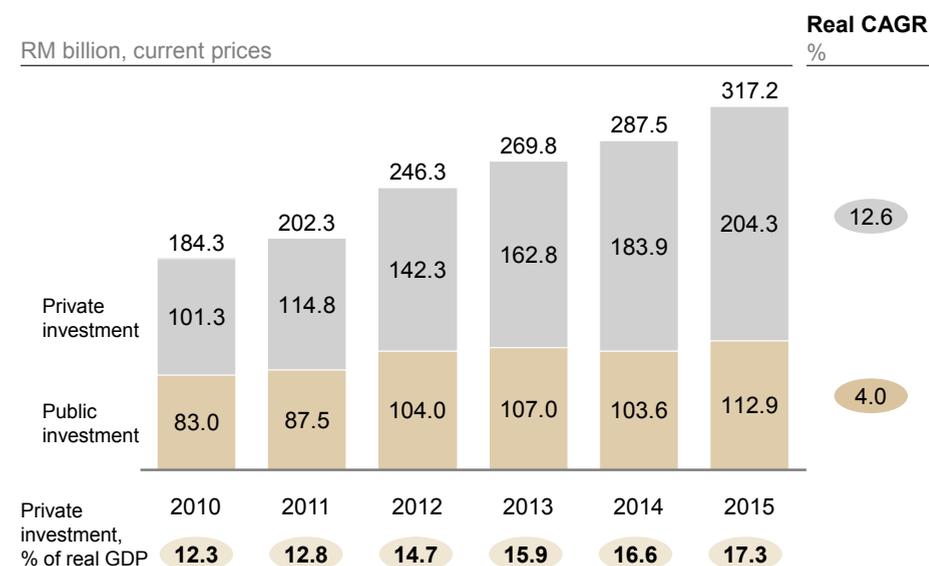
increase from 12.3% in 2010 to 17.3% in 2015. To further facilitate private investment, a total of RM6.1 billion was disbursed through the Facilitation Fund<sup>2</sup> from 2011 to 2014 for infrastructure, universities, colleges, resorts, mixed development projects, and power plants.

Foreign direct investment (FDI) remained an important source of investment, technology transfer, and access to foreign markets. A total of RM139 billion of FDI was recorded from 2011 to 2014, with Japan, Singapore, and Netherlands being the main contributors.

**Public investment** is expected to grow at 4% per annum in real terms during the Tenth Plan, spurred by the implementation of large-scale projects, such as the Klang Valley Mass Rapid Transit (KVMRT) line 1 from Sungai Buloh to Kajang, Electrified Double-Track Railway Ipoh-Padang Besar, Light Rail Transit (LRT) extension from Kelana Jaya and Sri Petaling to Putra Heights, Kuala Lumpur International Airport 2 (KLIA2), Central Spine Road from Kuala Lipis to Bentong, as well as the Re-gasification Terminal (RGT-1) in Melaka.

Exhibit 2-2

## Investment, 2010-2015



Notes: Based on GDP in 2010 prices  
Source: Economic Planning Unit and Department of Statistics Malaysia

**Private consumption** is estimated to expand by 7.1% per annum, supported by favourable employment and wage conditions. Consumption is not expected to be impacted much by the rationalisation of subsidies and the implementation of the goods and services tax (GST). **Public consumption** expanded rapidly by 8.4% during the first three years of the Plan, mainly contributed by higher expenditure on supplies and services as well as salary adjustments for civil servants in 2012. However, its expansion for the overall Plan period is estimated to be lower at 5.5% due to more prudent spending and fiscal consolidation in 2014-2015.

<sup>2</sup> The Facilitation Fund was introduced under the Economic Stimulus Package in 2009 as an initiative to encourage the implementation of private sector projects. Its main objective is to bridge the viability gap in private sector investment in high-value projects that have large spill-over effects and high strategic impact to the economy

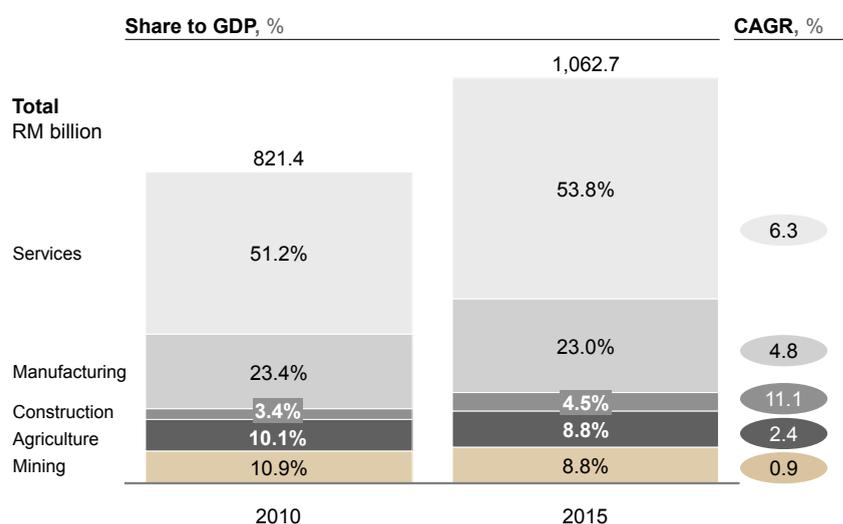
## Sectoral output

All sectors of the economy are expected to expand during the Plan period, as shown in Exhibit 2-3. The structure of the economy continues to evolve to become more services oriented. The share of the services sector to GDP is estimated to increase from 51.2% in 2010 to 53.8% by 2015. The share of the construction sector is estimated to increase from 3.4% to 4.5%, while those of the manufacturing, mining, and agriculture sectors are expected to decline. However, the latter three sectors continue to grow in absolute terms and their value added to the economy remains significant.

The **services sector** is estimated to grow by 6.3% per annum during the Tenth Plan. This growth is driven by the wholesale and retail trade subsector, supported by resilient consumer spending as well as the communications subsector, due to the sustained increase in the number of cellular phone subscribers and increased usage of mobile data services. In addition, the accommodation and restaurants subsector is expected to expand further due to higher tourist arrivals

Exhibit 2-3

### Real GDP by kind of economic activity, 2010-2015



Notes: Based on GDP in 2010 prices  
Source: Economic Planning Unit and Department of Statistics Malaysia

and receipts, while improvements in wholesale and retail trade-related activities boosted the transport and storage subsector. Robust activities in the infrastructure and residential subsectors are expected to spur a double-digit growth of 11.1% in the **construction sector**.

The **manufacturing sector** is estimated to grow at 4.8% per annum, given the resilient domestic demand from higher private investment and strong expansion in the construction-related subsector. This growth is also supported by the recovery in exports, particularly of electrical and electronics (E&E) products. The **agriculture sector** is estimated to maintain its growth momentum of 2.4% per annum, supported by modernisation in the agro-food and industrial commodity subsectors.

The **mining sector** increased marginally by 0.9% per annum mainly due to lower production of crude oil from maturing oil fields. On average, 587,000 barrels per day of crude oil and condensates was produced during the Plan, which is within the production volume set under the National Depletion Policy. Crude oil prices saw extreme fluctuations where the average price of Brent crude oil, the international key benchmark for global crude oil prices, plunged to US\$62.2 per barrel in December 2014 from an average of US\$110.5 per barrel in 2011-2013. The Brent crude price is expected to stabilise to about US\$60 per barrel in 2015. The production of liquefied natural gas (LNG) averaged at 25.2 million tonnes per annum (mtpa) to fulfil contractual demands from Japan, South Korea, Taiwan, and the PRC.

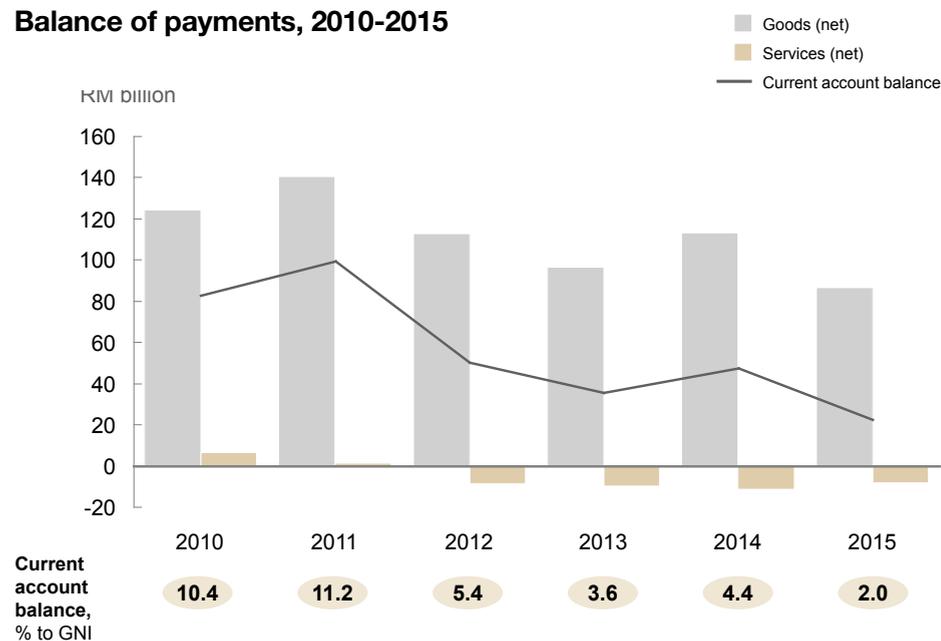
## International trade and balance of payments

The contribution of the external sector remains substantial at RM1.6 trillion, equivalent to 135% to GDP in 2015 compared with RM1.3 trillion in 2010 (158% to GDP). Based on the World Trade Organization 2013 report, Malaysia is currently the 25th biggest merchandise exporter contributing 1.2% of total world merchandise exports. The expansion of total exports is expected to be sustained at 4% per annum during the Tenth Plan. Malaysia's major trading partners were ASEAN followed by the PRC, Japan, the European Union (EU), and the US.

During the first three years of the Plan, **gross exports** moderated to 4.1% per annum, mainly due to the contraction in E&E exports by 1.7% and agriculture commodities by 1.2% following weaker external demand. Mineral exports grew at 9.9% supported by 15.4% growth in LNG exports, following higher demand for gas-powered electricity generation in Japan.

Exhibit 2-4

## Balance of payments, 2010-2015

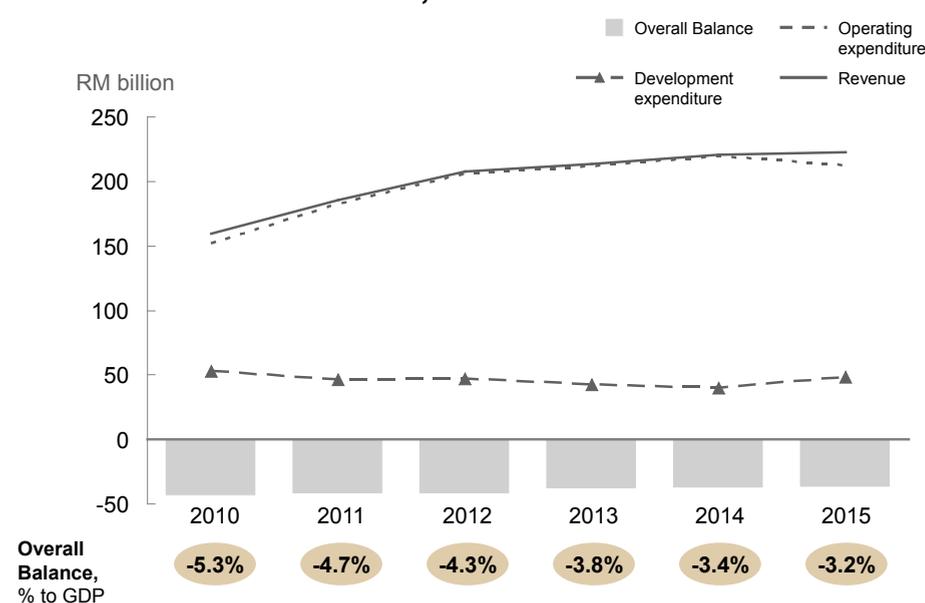


Notes: Based on GDP in 2010 prices

Source: Economic Planning Unit and Department of Statistics Malaysia

Exhibit 2-5

## Federal Government account, 2010-2015



Notes: Based on GDP in 2010 prices

Source: Economic Planning Unit, Ministry of Finance and Department of Statistics Malaysia

Malaysia became a net overall importer of petroleum-related products in 2014, net exporting RM8.8 billion worth of crude oil, but net importing RM9.7 billion of petroleum products. Therefore, the net impact of lower oil prices beginning 2014 has been positive for Malaysia. Given that the share of mineral exports to total exports is only 13.7%, the broader impact of uncertainties in the oil and gas market to the national economy is also limited.

Growth of exports in 2014-2015 is expected to further moderate by 3.9% per annum, mainly due to lower commodity prices. Mineral exports are estimated to decline by 13.7% per annum and agricultural exports by 5.3% per annum. However, manufactured exports are estimated to increase by 7.8% per annum due to sustained demand for E&E products during the same period.

**Gross imports** are estimated to expand by 6.5% per annum during the Plan period, contributed partly by the increase in imports for re-exports. This accounted for nearly 15% of total imports, following the setting up of the regional oil storage and trading facilities in southern Johor. Imports of capital and intermediate goods contributed to three quarters of total imports.

The **current account of the balance of payments (BOP)** is expected to remain in surplus, albeit narrowing from RM82.8 billion or 10.4% to GNI in 2010 to RM22.4 billion or 2% to GNI in 2015, as shown in Exhibit 2-4. This is attributed to the surplus in the goods account, higher tourism receipts in the services account and improvements in the secondary income account.

Malaysia continues to maintain a strong international reserves position. As of 15 April 2015, international reserves stood at RM391.4 billion (US\$105.6 billion), making it 1.1 times the short-term external debt, and sufficient to finance 8.2 months of retained imports.

## Federal Government fiscal position

The Federal Government fiscal position was further consolidated in line with the targets set during the Tenth

Plan. The fiscal deficit was reduced from 5.3% to GDP in 2010 to 3.4% in 2014 due to more prudent fiscal management, as shown in Exhibit 2-5. Revenue collection was better than expected from 2011 to 2013 with higher global crude oil prices, strategic divestments by Khazanah Nasional Berhad, and securitisation of Government employees' housing loans. As part of the overall effort to facilitate fiscal consolidation, the Government undertook several structural and institutional reforms during the Plan period, such as establishing the Fiscal Policy Committee, adopting Outcome-Based Budgeting, and implementing GST. Fuel subsidies were further rationalised by the introduction of the managed float system for retail RON95 and diesel prices from December 2014.

Following the falling crude oil prices in 2014, the fiscal deficit is expected to be 3.2% to GDP in 2015 as compared with the target of 3%. Overall, the continued reduction in the fiscal deficit will ensure that the total Federal Government debt does not exceed the self-imposed debt limit of 55% to GDP. By 2015, debt is expected to reach RM622.7 billion (53.3% to GDP) from RM407.1 billion (49.6% to GDP) in 2010. Although the debt level remains elevated, the debt servicing capacity is still within prudent limits, which is capped below 15% of revenue. In 2015, debt service charges are estimated to be 10.9% of revenue compared with 9.8% in 2010.

### **Inflation and labour market**

Although the Government rationalised subsidies for fuel, electricity and sugar, inflation remained moderate at an average rate of 2.5% per annum between 2011 and 2014. The main contributors to inflation were food and non-alcoholic beverages; transport; and housing, water, electricity, gas, and other fuel. These three categories accounted for 80.5% of the overall increase in consumer prices during the period. Inflation in 2015 is expected to be lower between 2% and 3%, mainly due to the decline in global oil prices. This would partly offset some of the impact from the implementation of GST from 1 April 2015.

The economy is expected to continue to be in full employment with the unemployment rate remaining at 2.9% by the end of the Tenth Plan. This is attributed to the steady economic growth and improvements in

the labour market. A total of 1.8 million jobs are estimated to be created mainly in the services and manufacturing sectors.

## **Issues and challenges**

Malaysia has continued to strengthen economic resilience through various measures over the last five years. Moving forward, there are still challenges to be addressed. The five key challenges that will be addressed by the Government during the Eleventh Plan are uncertainties in the global economy, lagging productivity growth, inadequate fiscal space, low compensation to employees, and disparity in household income. These challenges can significantly affect the nation's economic performance and its future growth trajectory. Therefore, macroeconomic strategies under the Eleventh Plan will seek to ensure that the economy continues to be resilient.

### **Uncertainties in the global economy**

As a small and open economy, Malaysia is susceptible to global economic risks and uncertainties. The economic shocks experienced in the past few decades were triggered by external factors such as the collapse of world commodity prices in 1985, Asian financial crisis in 1997/1998 and the subprime crisis in 2009. Nevertheless, Malaysia managed to rebound within a year of these crises, which demonstrated its economic resilience. In addition to shorter global economic cycles, Malaysia also faces the prospect of a drastic fall in the prices of major export commodities, depreciation of the ringgit against major currencies, and the risk of economic slowdown of its major trading partners.

### **Lagging productivity growth**

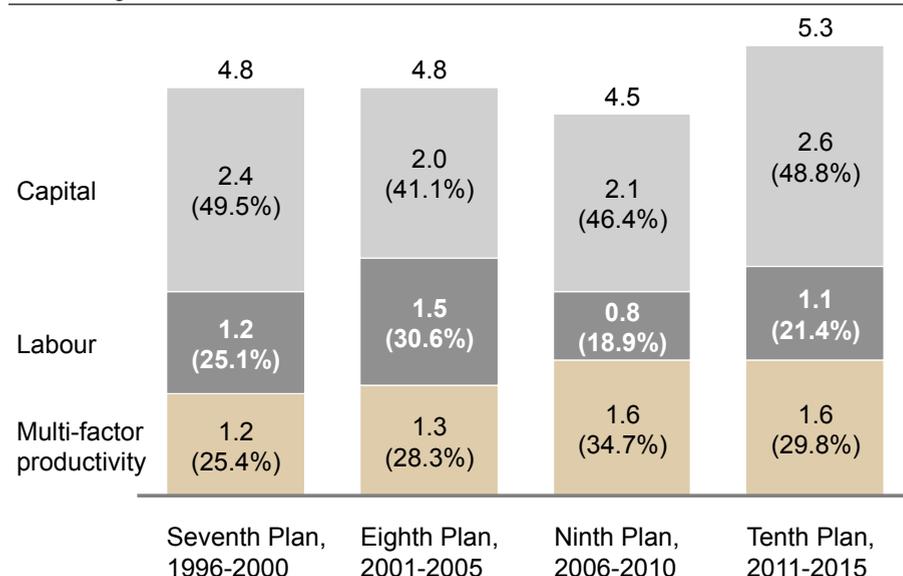
Since the mid-1990s, Malaysia has focused on increasing innovation and productivity to transform from an input-driven to a knowledge-based economy. However, productivity level still lags behind that of most developed economies. In 2013, Malaysia's labour productivity was only 32.4% that of the US and 56.1% that of South Korea. This is mainly due to the low contribution of MFP<sup>3</sup> to the economy. The Malaysian economy is still driven by traditional factors of production, namely capital and labour, which contributed about 70% of GDP growth, as shown in Exhibit 2-6. Even though labour and capital are still necessary for production, higher

<sup>3</sup> MFP measures the part of economic growth that cannot be explained by the increased utilisation of capital and labour, and is often interpreted as the contribution to economic growth made by factors such as technical and organisation innovation as well as quality of labour. MFP is synonymous to Total Factor Productivity (TFP)

Exhibit 2-6

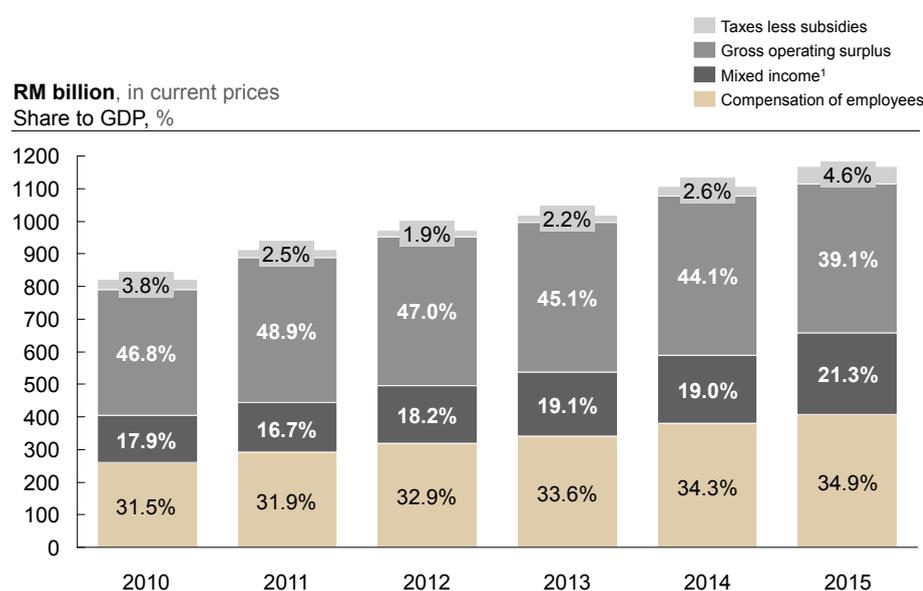
**Factors of production, 1996-2015**

Real growth, % p.a.  
Share to growth in brackets, %



Notes: Based on GDP in 2010 prices  
Source: Economic Planning Unit and Department of Statistics Malaysia

Exhibit 2-7

**GDP by income approach, 2010-2015**

Notes: Based on GDP in 2010 prices  
<sup>1</sup> Income earned by self-employed and unincorporated businesses  
Source: Economic Planning Unit and Department of Statistics Malaysia

MFP contribution will ensure a more sustainable growth pattern and equitable distribution of wealth in the long run.

**Inadequate fiscal space**

The Federal Government fiscal account remained in deficit, albeit on a declining trend, throughout the Tenth Plan. Nevertheless, the deficit was financed through non-inflationary means, mainly through borrowing from domestic non-banking institutions and issuing bonds, while keeping to the self-imposed borrowing limit of 55% to GDP. In view of global economic uncertainties, it is imperative that fiscal consolidation measures continue, while also ensuring that there is adequate public funding to support economic growth and deliver quality services to the *rakyat*.

**Low compensation to employees**

Although economic growth has been accompanied by a reduction in income disparity, a significant gap still exists between the income of capital owners and employees, as shown in Exhibit 2-7. During the 2010-2013 period, the share of Gross Operating Surplus (GOS), which represents income of capital owners, averaged 64.9% of GDP while the Compensation of Employees (CE) was 32.5%. The CE to GDP ratio for Malaysia is lower compared with that of other high- and middle-income countries such as Australia (47.8% of GDP), South Korea (43.2%), and South Africa (45.9%).

**Disparity in household income**

As the nation continues its stable economic growth, all Malaysians should be given the opportunity to contribute to and participate in the economy. However, certain communities still remain vulnerable to economic risk, particularly the bottom 40% (B40) households. Even though the average monthly income of the B40 households has increased by 12% per annum between 2009 and 2014, its income share of total household income only increased marginally from 14.3% in 2009 to 16.5% in 2014. Further raising the income of B40 households is a priority for Malaysia to achieve more inclusive development.

# Summary of macroeconomic strategies

## Eleventh Malaysia Plan, 2016-2020

Unlocking productivity potential to ensure sustainable and inclusive growth



Nation-wide productivity agenda and implementation plan  
Enhancing public sector productivity and accelerating regulatory reforms  
Greater collaboration in re-skilling and research  
Ensuring productivity is championed across industries  
Enterprise-level productivity assessments and targets

Promoting investment to spearhead economic growth



Reducing the cost of doing business  
Providing performance-based incentives for high-income and knowledge-intensive economic activities  
Addressing the talent gap and mismatch  
Improving access to financing for knowledge-intensive industries  
Providing tipping point financing through the Facilitation Fund

Increasing exports to improve trade balance



Improving the export ecosystem  
Moving up the value chain  
Maximising opportunities with strategic partners  
Increasing external industry expert support

Enhancing fiscal flexibility to ensure sustainable fiscal position



Enhancing revenue and implementing more prudent spending measures

## Multidimensional goals, 2016-2020

GDP growth at

**5-6%**

per annum



Labour productivity at

**RM92,300**

by 2020 from RM77,100 in 2015



GNI per capita at

**RM54,100**

by 2020



Average monthly household income at

**RM10,540**

by 2020 from RM6,141 in 2014



Compensation of employees to **40%**

GDP by 2020 from 34.9% in 2015



Malaysian Wellbeing Index (MWI) to increase

**1.7%**

per annum



# Macroeconomic prospects, 2016-2020



# Macroeconomic prospects

## Eleventh Malaysia Plan, 2016-2020

GDP growth will be backed by strong domestic demand and expanding external sector, as well as a shift in focus towards multidimensional goals that balance economic growth, wealth distribution, and national wellbeing in line with the people economy.

The Eleventh Plan period is crucial as it is the final Plan before the year 2020, the year by which the nation would have achieved its goal of becoming an advanced and inclusive nation. In line with the priorities of the people economy, the Government will shift towards multidimensional goals for the nation that balance economic growth, wealth distribution, and national wellbeing. Thus, the multidimensional goals set out for the Eleventh Malaysia Plan will encompass macroeconomic targets as well as socio-economic goals of income distribution and wellbeing.

### External environment

The Malaysian economy is expected to benefit from more robust global economic prospects, recovery of commodity prices and benign global inflation during the Eleventh Plan. The global economy is expected to strengthen during the period to grow at 3.9% per annum, as shown in Exhibit 2-8. Stronger consumer and business spending in advanced economies, stabilisation and recovery of emerging market and developing economies as well as the easing of fiscal constraints in advanced economies are projected to contribute to the overall stronger global growth.

Exhibit 2-8

### World economic outlook, 2011-2020

Item	Growth, % p.a.						
	Actual				Estimate	Estimate	
	2011	2012	2013	2014	2015	Tenth Plan	Eleventh Plan
<b>World output</b>	4.2	3.4	3.4	3.4	3.5	3.6	3.9
Advanced economies	1.7	1.2	1.4	1.8	2.4	1.7	2.1
Emerging market and developing economies	6.2	5.2	5.0	4.6	4.3	5.0	5.1
<b>World trade</b>	6.8	2.8	3.5	3.4	3.7	4.0	5.0
<b>Imports</b>							
Advanced economies	5.5	0.9	2.1	3.3	3.3	3.0	4.6
Emerging market and developing economies	9.8	6.0	5.5	3.7	3.5	5.7	6.0
<b>Exports</b>							
Advanced economies	6.3	2.0	3.1	3.3	3.2	3.6	4.3
Emerging market and developing economies	7.4	4.4	4.6	3.4	5.3	5.0	6.0
<b>World price</b>							
Manufactures	6.1	0.6	-1.4	-0.8	-3.3	0.2	0.6
Non-fuel primary commodities	17.9	-10.0	-1.2	-4.0	-14.1	-2.9	-0.7
Oil (US\$ per barrel) <sup>1</sup>	104.0	105.0	104.1	96.2	58.1	93.5	70.9
Growth (%)	31.6	1.0	-0.9	-7.5	-39.6	-6.0	5.0
<b>Consumer prices</b>							
Advanced economies	2.7	2.0	1.4	1.4	0.4	1.6	1.9
Emerging market and developing economies	7.3	6.1	5.9	5.1	5.4	6.0	4.6

Notes: <sup>1</sup>The average of UK Brent, Dubai Fateh, and West Texas Intermediate crude oil prices  
Source: World Economic Outlook, April 2015, International Monetary Fund

Growth is expected to remain uneven across regions. Advanced economies are projected to record a moderate growth of 2.1% per annum while emerging market and developing economies, particularly in Asia, are expected to grow at a faster rate of 5.1%. World trade is anticipated to expand by 5% per annum, supported by encouraging export growth of 6% in emerging market and developing economies. World inflation is projected to be at 3.5% per annum during the Plan period. There are however, headwinds expected from high household and public debt, rising healthcare costs, lower commodity prices, and geopolitical tensions, which may dampen overall world growth momentum.

## Multidimensional goals

Six multidimensional goals have been identified for the Eleventh Plan:

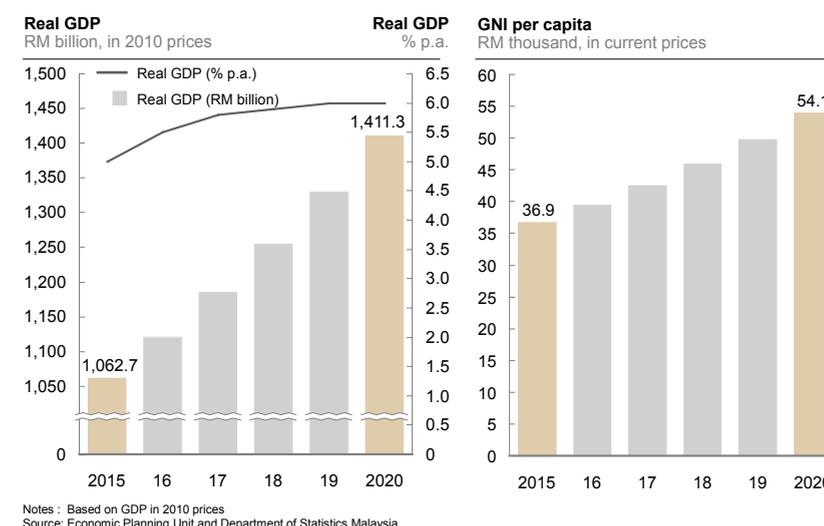
- Real GDP to expand at 5-6% per annum
- Labour productivity to increase from RM77,100 in 2015 to RM92,300 in 2020
- GNI per capita to reach RM54,100 (US\$15,690) in 2020
- Average monthly household income to increase from RM6,141 in 2014 to RM10,540 in 2020
- The share of compensation of employees to GDP to increase from 34.9% in 2015 to at least 40% in 2020
- The Malaysian Wellbeing Index (MWI) to increase by 1.7% per annum, an indicator of improvement in the wellbeing of the *rakyat*

During the Plan period, the GDP growth of 5-6% will be anchored by robust expansion in private consumption and investment, resulting in a 7.9% per annum rise in GNI per capita, as shown in Exhibit 2-9. Worker salaries are also expected to rise, resulting in a more equitable distribution of income between capital owners and employees with an increase in the share of compensation of employees to GDP.

Overall wellbeing is expected to improve as a result of rising household incomes and other inclusiveness and wellbeing initiatives. The Malaysian Wellbeing Index is targeted to increase by 1.7% per annum, compared with 1.2% as recorded during the Tenth Plan. Social wellbeing is targeted to improve at a more rapid pace during the

Exhibit 2-9

## GDP and GNI per capita, 2015-2020



Eleventh Plan as compared with the Tenth Plan, reflecting the shift in policy focus towards the people economy.

## Macroeconomic strategies to strengthen economic fundamentals

To meet the multidimensional goals, the macroeconomic policy framework for the Plan period will focus on enhancing the resilience of the economy. During the Eleventh Plan, strategies will continue to ensure a conducive and competitive economic environment with stable prices, and supportive levels of interest rates and foreign exchange rates. Four strategies have been identified to strengthen economic fundamentals and maintain economic stability as follows:

- Unlocking the potential of productivity to ensure sustainable and inclusive growth
- Promoting investment to spearhead economic growth
- Increasing exports to improve trade balance
- Enhancing fiscal flexibility to ensure sustainable fiscal position

## Domestic economy

Successful achievement of the multidimensional goals laid out above is contingent on the delivery of overall national macroeconomic targets. A number of key targets are laid out below.

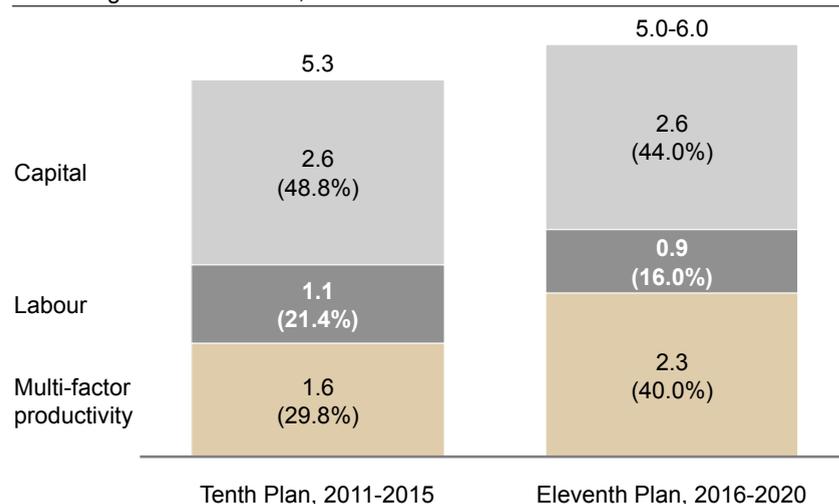
### Productivity

GDP growth during the Eleventh Plan will be driven by significant increases in **productivity**, with less dependence on inputs from capital and labour. Increasing productivity is identified as one of the game changers where the contribution of MFP to GDP growth is targeted to increase to 40%, while that of capital is expected to reduce to 44% and labour to 16%, as shown in Exhibit 2-10. Higher productivity growth will be achieved through comprehensive initiatives at all levels and championed by industry players. Industrial productivity will be raised through greater adoption of automation and upgrading of skills. The innovation ecosystem will be enhanced to elevate productivity through new or improved processes and technologies. Strategies at various levels will be implemented to achieve this aspiration.

Exhibit 2-10

### Factors of production, 2011-2020

Real growth, % p.a.  
Share to growth in brackets, %



Notes: Based on GDP in 2010 prices  
Source: Economic Planning Unit and Department of Statistics Malaysia

### National level

- Establishing a nation-wide productivity agenda and implementation plan by formulating a five-year Malaysia Productivity Blueprint, strengthening the governance and institutional mechanism for implementation of productivity strategies and establishing a dedicated national productivity portal
- Enhancing public sector productivity by introducing productivity enhancement key performance indicators (KPIs), accelerating regulatory reforms and rationalising government institutions
- Encouraging up-skilling and re-skilling as well as research through increased industry-academia collaboration, more targeted skills training programmes and increased support for industrial and social innovation activities

### Industry level

- Ensuring productivity is championed across industries by appointing productivity champions and customising industry-level productivity programmes

### Enterprise level

- Setting up enterprise-level productivity assessments and targets by promoting productivity performance targets, introducing firm-level interventions, promoting health check mechanisms and fostering a productivity-based culture

### Aggregate demand

On the demand side, **real private consumption** is expected to increase at an average rate of 6.4% per annum, as shown in Exhibit 2-11. This increase will be supported by higher household income due to stable labour market conditions, increased employment in high-paying jobs, favourable commodity prices and continued direct assistance by the Government to the targeted groups. **Public consumption** is anticipated to grow moderately by 3.7% per annum, in line with greater prudence and commitment to achieve a balanced budget by 2020, without compromising on the quality of public service delivery.

The private sector will continue to play a significant role in steering the nation towards becoming an advanced economy and inclusive nation. **Private investment** is expected to grow at 9.4% per annum, with an

estimated average annual investment of RM291 billion in current prices. Both domestic direct investment (DDI) and FDI will be promoted. With respect to DDI, small and medium enterprises (SMEs) will be given special focus as they made up 98.5% of total establishments and 59% of total employment in the economy in 2015. Efforts to increase FDI will focus on attracting investments in higher value added and knowledge-intensive employment activities.

The Government will take on more of a regulatory and facilitative role in increasing private investment through targeted strategies such as improving access to financing and improving regulations to be more business-friendly. Five strategies will be implemented to strengthen investment outcomes:

- Reducing the cost of doing business through increased provision of basic infrastructure and facilities, and reviewing bureaucratic regulations
- Providing performance-based incentives for high-income and knowledge-intensive economic activities by reviewing the current investment incentive programme
- Addressing the talent gap and mismatch by establishing a labour market data warehouse, improving the labour market clearance mechanism as well as re-skilling and multi-skilling programmes

- Improving access to financing for knowledge-intensive industries by considering innovative financing options
- Providing tipping point financing through the Facilitation Fund to bridge the viability gap in financing for strategic investment projects

**Public investment** is anticipated to grow at 2.7% per annum, or an annual average of RM131 billion in current prices, driven by the Federal Government development expenditure and capital spending of non-financial public enterprises (NFPEs). These investments are particularly in the infrastructure, transport, utilities as well as oil and gas industries. Some of the major public sector projects that will be undertaken, include the Pengerang Integrated Complex (PIC) in Johor; Pan-Borneo Highway; KVMRT Line 2 and the roll-out of the High Speed Broadband project phase 2. The Government will take steps to sequence project implementation to ensure sustainable economic growth.

## Sectoral output

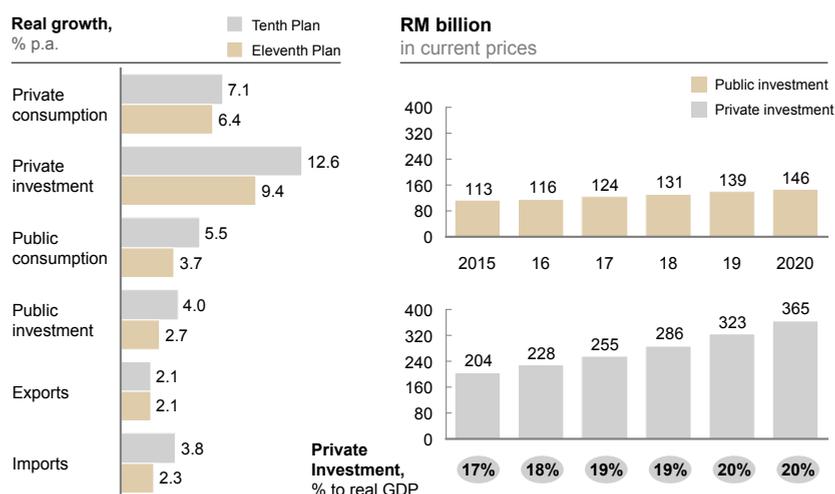
All economic sectors are expected to record better performance during the Plan period, as shown in Exhibit 2-12. The growth of these sectors will be driven by strong demand, enhanced productivity as well as higher value added and knowledge-intensive activities.

The **services sector** will continue to be the key driver of growth. Growth in the sector is expected to increase significantly by 6.9% per annum, increasing its share to the GDP from 53.8% in 2015 to 56.5% in 2020. The sector is expected to record broad-based growth across all subsectors. The wholesale and retail subsector will continue to be the main contributor, expanding by 5.8% per annum, supported by strategies to modernise the subsector as well as enhance the efficiency and effectiveness of the supply chain. The real estate and business services subsector is expected to expand by 7.9%, followed by the finance and insurance subsector by 6.1%.

The performance of the **manufacturing sector** will be enhanced through a shift towards the production of more complex and diverse products and improving productivity by adopting greater automation and upgrading skills. The sector is expected to record a growth of 5.1% per annum during the Plan period, led by the domestic-oriented subsector, which is expected to increase by 4.4% in line with better business confidence and consumer sentiments. Among the key industries that will drive growth are food, beverages and tobacco; fabricated metal products; and machinery

Exhibit 2-11

## GDP by expenditure, 2011-2020



Notes : Based on GDP in 2010 prices  
Source : Economic Planning Unit and Department of Statistics Malaysia

## Game Changer

# Unlocking the potential of productivity

### Why is productivity important for Malaysia?

In the past, Malaysia's economic growth has been predominantly input-driven, supported by private investments in industry and public investments in infrastructure, utilities, as well as in schools and hospitals. Despite efforts to improve productivity, Malaysia continues to lag behind many high-income economies. For example, Malaysia's labour productivity level was 32% that of the United States and 56% that of South Korea in 2013. While Malaysia will continue to boost private

investment and undertake public investment during the Eleventh Plan, it will place greater emphasis on increasing productivity to achieve a more sustainable, inclusive, and high rate of economic growth.

### What will success look like?

During the Eleventh Plan, labour productivity is targeted to reach RM92,300 in 2020 from RM77,100 in 2015, as shown in Table B2-1. In addition, sectoral growth will accelerate due to improvements in productivity.

Table B2-1

### Labour productivity, 2010-2020

Sector	RM '000, in 2010 prices						Growth, % p.a.		
	Actual			Estimate		Target	Estimate Tenth Plan	Target Eleventh Plan	
	2010	2011	2012	2013	2014	2015	2020	2011-2015	2016-2020
Agriculture	51.7	55.3	55.8	56.4	57.5	57.7	68.8	2.2	3.6
Mining and Quarrying	1,089	1,064	1,076	1,083	1,114	1,147	1,210	1.1	1.1
Manufacturing	94.4	94.4	94.4	94.8	95.5	98.8	112.1	0.9	2.6
Construction	24.7	25.8	30.0	32.2	35.7	39.1	61.9	9.6	9.6
Services	59.3	60.8	62.4	63.8	66.4	68.1	83.4	2.8	4.1
<b>Total</b>	<b>68.7</b>	<b>69.9</b>	<b>71.4</b>	<b>72.5</b>	<b>75.0</b>	<b>77.1</b>	<b>92.3</b>	<b>2.3</b>	<b>3.7</b>

Notes: Based on GDP in 2010 prices

Source: Economic Planning Unit and Department of Statistics Malaysia

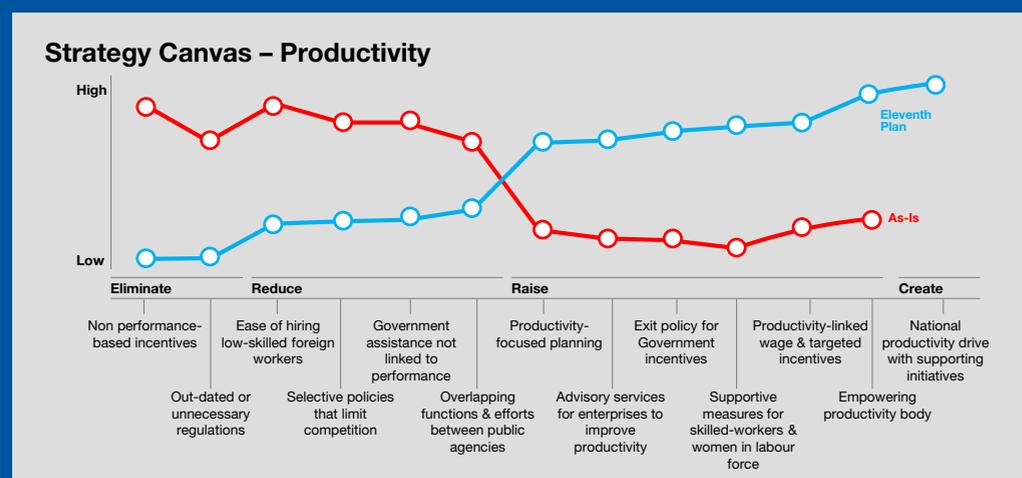
### How will this be achieved?

Malaysia’s approach to productivity will shift from primarily Government-driven initiatives at the national level to targeted actions across the public sector, industry players, and individual enterprises, with champions identified to role model change and ensure buy-in across stakeholders. Broad-based initiatives will be developed and tailored for each sector

with targets set and monitored. At the national level, productivity-linked incentives will be introduced and regulatory reforms will be accelerated. At the industry level, industry champions will spearhead industry-specific productivity initiatives, while at the enterprise level, incentives and up-skilling programmes will be provided. Collectively, these strategies will produce a set of major shifts as laid out below.

	From	To
<b>Approach</b>	Fragmented productivity initiatives, typically at national level	Focused and comprehensive strategies at all levels – national, industry and enterprise
<b>Champion</b>	Led by Government	Spearheaded by industry champions and industry associations and supported by Government via the National Productivity Council
<b>Industry focus</b>	Focused on manufacturing sector and selected services subsectors	Covers all sectors, including agriculture, construction and the public sectors
<b>Programme design</b>	Generic programmes without clear targets Incentives not linked to performance	Programmes closely aligned with industry needs as per relevant industry master plan Programme incentives linked to outcomes
<b>Regulation</b>	Little to no linkages between regulations or policies with productivity	Linkages established between Government regulations or policies with productivity
<b>Oversight</b>	Oversight only at the national level	Increased oversight across national, industry, and enterprise levels

The strategy canvas highlights areas that should be eliminated, reduced, raised or created for this game changer.



## Where are the best practices in Malaysia?

Productivity levels in Malaysia have increased during the Tenth Plan, but still lag behind most developed economies. To stay ahead of the curve, Malaysia must accelerate productivity growth, particularly by growing capital efficiency and improving MFP. Malaysia's ability to increase its labour productivity growth rate depends on how well it can derive greater efficiency from internal resources such as human capital, innovation, as well as from better practices such as operational excellence. Best practices and innovation for productivity improvement exist in companies and organisations across the nation. The following examples illustrate the range of such practices across different sectors and different types of organisations in Malaysia.

### Connecting to the grid

**Tenaga Nasional Berhad (TNB)** is the largest electricity utility company in Malaysia serving more than eight million customers. It is also a leading utility company in Asia. The process of providing electricity supply connections is a key customer priority for TNB as it affects hundreds of thousands of new customers every year. The process encompasses procedures such as applications, inspections, meter installation, and the final connection works. The number of days and procedures required to set up a supply connection also has an impact on the economic development of Malaysia as these metrics are benchmarked by the World Bank as an important indicator on the ease of doing business in each country.

Over the past few years, TNB has demonstrated how productivity, operational efficiency, and customer service can be improved concurrently. As part of its ongoing transformation programme, TNB focused on streamlining the end-to-end process of supply connection to reduce the number of steps required for application, improve communications with contractors, introduce electronic document management systems, and manage resources more effectively. As a result, the number of days required for an overhead electricity connection reduced from 51 days in 2012 to 32 in 2014, placing Malaysia in 27th place out of 189 countries in terms of speed of getting electricity in the World Bank's Doing Business 2015 report. As of 2015, upon receiving necessary authorisations and user payment, TNB is now able to connect households and businesses to an electricity supply within 7 days – all this at a lower cost to customers.

Source: PEMUDAH Malaysia in Doing Business 2015 report; World Bank Doing Business Report 2015; Tenaga Nasional Berhad Performance Standards ([www.tnb.com.my](http://www.tnb.com.my))

### Reducing patient wait times

**Perdana Specialist Hospital (PdSH)** is a hospital under KPJ Healthcare Berhad in Kota Bharu with a maximum capacity of 126 beds. PdSH faced capacity issues due to long patient discharge times of over five hours, resulting in a lack of available rooms and an inability to accommodate new patients. To address this, PdSH adopted “lean” principles and tools such as value stream mapping, particularly to help reduce waiting times for the discharge of post-natal self-paying patients.

A key component of a sustainable healthcare system is the ability to utilise existing healthcare assets well, and to deliver services with greater efficiency. The “lean” methodology can be applied effectively in hospitals to eliminate waste, streamline processes, reduce cycle times, improve the quality of care, enhance satisfaction, and reduce delays for patients.

Over the course of six months, PdSH successfully streamlined and reduced the number of steps in the discharge process by 35% from 31 to 20 steps, as well as shortened average waiting time by 47% from 5 hours 8 minutes to 2 hours 44 minutes. In addition, productivity improvements through value streammapping helped to eliminate wastage in terms of distance traveled, as well as staff and lift utilisation. By improving the turnover of patients, PdSH not only enhanced overall patient satisfaction, but also increased revenues per bed by 113% from RM313,677 in the first quarter of 2014 to RM674,773 in the second quarter of 2014.

Source: Malaysia Productivity Corporation

## Linking performance and productivity

**Panasonic Appliances Air-Conditioning** is an air conditioner machine manufacturing company based in Shah Alam. In order to support improvements in the productivity and efficiency of its workforce, it implemented the Productivity-Linked Wage System (PLWS) that linked productivity to individual performance and rewards. The PLWS is also a focus area of research conducted by the Malaysia Productivity Corporation (MPC), and is among one of 78 research projects by MPC to improve productivity and innovation nationwide.

The first phase of the initiative by Panasonic (Mind Change) directly linked bonuses and salary increments to company performance, while the second phase (Real Productivity Enhancement) further linked bonuses and increments to individual performance, as well as to a challenging performance index. The PLWS successfully delivered significant improvements on the performance of the company across various dimensions. This included boosting workforce attendance to 98.3%, increasing workforce productivity, improving production quantities, and various other operational metrics.

Source: Malaysia Productivity Corporation

## Enhancing productivity in public services

**The Kuantan Municipal Council** or Majlis Perbandaran Kuantan (MPK) embarked on business process re-engineering to improve service delivery for customers. The e-Licence system was introduced to simplify previously complex procedures for issuance of business premise licences. The concept of “approve first, inspect later” was adopted, and has reduced application and approval time from 21 days to as little as 15 minutes. Online application systems via the MPK portal has also enhanced the user-friendliness of the process. The capacity of MPK to process licences improved from 50 to 1,377 applications per month with a reduction in operational cost of 76%, and at the same time, increased revenues collected by more than 27 times.

**The Inland Revenue Board of Malaysia** (IRBM) acts as an agent of the Government in providing services in administering, assessing, collecting, and enforcing payment of taxes and duties. IRBM has embarked on several service delivery improvement initiatives by leveraging on ICT innovations, such as e-Filing for electronic submission of tax returns, e-Payment for online payment of taxes, as well as electronic systems for monthly tax deductions and taxpayer registration. IRBM’s commitment to innovation has resulted in increased revenue collection and lower operational cost, while optimising resources, time, and working space. In terms of tax arrears, 74.7% of the total amount of arrears or RM6.85 billion was successfully resolved and collected in 2013. Direct tax collection also increased significantly by 358% from RM29.17 billion in 2000 to RM133.70 billion in 2014.

Source: MAMPU; Kuantan Municipal Council; IRBM

## Innovating on industrial efficiency

**Hartalega** is the world’s largest nitrile glove producer based in Malaysia. Malaysia is now also the world’s largest producer of rubber gloves, with more than 60% of global market share. Hartalega is at the forefront of industry innovations and has the highest productivity performance in the industry. They invest over RM10 million each year into research and development to improve the industrial efficiency of its manufacturing processes. They have introduced innovations such as double former production lines, mechanical stripping systems, glove stacking devices, and dipping simulators. In parallel, Hartalega places heavy emphasis on talent development and skills improvement of their workforce, and collaborates with learning agencies such as Majlis Amanah Rakyat (MARA) and Selangor Human Resource Development Centre (SHRDC).

Hartalega is commissioning their Next Generation Integrated Glove Manufacturing Complex (NGC) comprising 72 high-tech production lines with the fastest line speeds in the industry. The new facilities and increased production capacity are expected to create more than 4,000 new jobs, while reducing manual labour requirements by 24% due to technological advances. Hartalega reports an average ratio of 3.9 workers per million pieces of gloves produced per month, which is substantially better than the estimated industry average of 7.5 workers per million pieces. With the new NGC, Hartalega expects this ratio to improve further to 2.6 workers per million gloves.

Source: Hartalega annual reports; Invest Malaysia Corporate Malaysia 2014 presentation

and equipment. Given improvements in external demand, the export-oriented subsector is also expected to expand at 5.5%, including the E&E, petroleum and chemicals, plastic products, and non-metallic mineral products industries.

The **construction sector** is estimated to expand by 10.3% per annum during the Plan period. This is attributed to continued civil engineering works and a growing residential subsector to fulfil the demand for housing, particularly from the middle-income group. Demand for affordable housing by the low-income group will also remain favourable, which will be supported by several Government initiatives, such as Program Perumahan Rakyat 1Malaysia (PR1MA), Rumah Idaman Rakyat and Rumah Mesra Rakyat. Other subsectors such as civil engineering and non-residential will remain robust in line with the development of major projects such as the Tun Razak Exchange, KL118 Tower, Refinery and Petrochemicals Integrated Development (RAPID), and the Pan-Borneo Highway.

The **agriculture sector** is projected to expand by 3.5% per annum. Emphasis will be on increasing productivity through the modernisation of the sector, supported by greater innovation and research and development. Focus will be given to the agro-food subsector to ensure

the targeted self-sufficiency level of food commodities, such as rice at 100%, vegetables at 95.1%, and beef at 50% are met by 2020. The oil palm subsector is expected to expand by 2.8% with an increasing number of matured plantations, particularly in Sabah and Sarawak. The rubber subsector is also estimated to grow by 7.6% due to the expected price recovery.

The **mining sector** is expected to rebound with a 1.3% growth rate per annum during the Plan period. The production of crude oil and condensates is expected to be at a sustainable level of 612,000 barrels per day, while the production of LNG will increase to 29.3 mtpa with the operation of Train 9 in PETRONAS LNG Complex in Bintulu, Sarawak beginning 2016. The production of crude oil will be supported by anticipated oil discoveries, and marginal fields as well as revival of mature fields made possible with the adoption of new technologies, such as enhanced oil recovery and improved oil recovery, subject to economic viability. The production of natural gas is expected to expand further on account of increased demand, particularly from petrochemicals. Based on 2015 estimates, the reserve life for crude oil will be a further 28 years and 42 years for gas.

## GDP by state

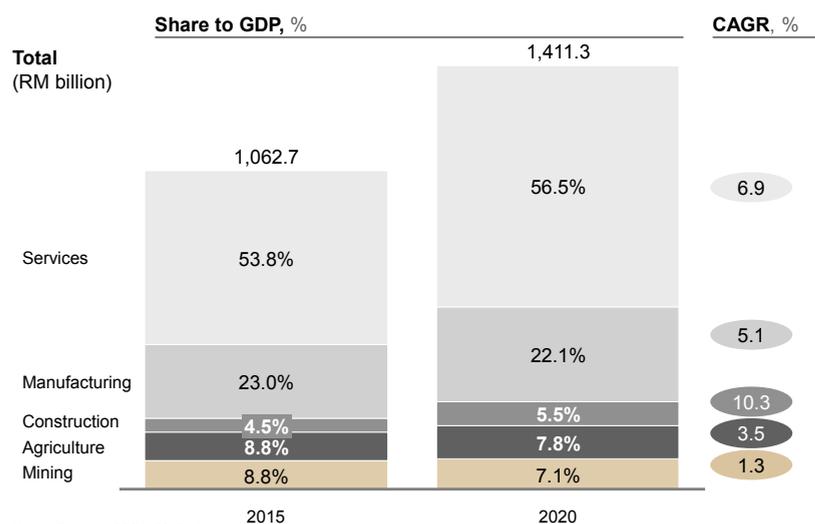
Ensuring geographic balance in economic growth continues to be a priority for the Government. GDP and GDP per capita by state are expected to grow in tandem with national average growth rates, as shown in Exhibit 2-13. Most states will perform better during the Eleventh Plan compared with their performance in the Tenth Plan. In line with the national economic structure, the services and manufacturing sectors are expected to be the main drivers for economic growth at state level. In parallel, all states are expected to record significant improvements in GDP per capita, resulting in higher household income and enhanced wellbeing of the *rakyat* across the nation.

## International trade and balance of payments

International trade growth is expected to remain robust, supported by the implementation of the ASEAN Economic Community (AEC) in 2015 as well as bilateral and multilateral trade agreements. These trade arrangements will benefit domestic industries in manufacturing, mining and services sectors, in particular aviation, banking, education, healthcare, information and communications technology (ICT), and tourism. In addition, the formation of the National Export Council (NEC)

Exhibit 2-12

### GDP by kind of economic activity, 2015-2020



Notes : Based on GDP in 2010 prices  
Source: Economic Planning Unit and Department of Statistics Malaysia

will further stimulate export growth by facilitating cross-ministry policy coordination and implementation.

With the expected positive global growth outlook and the strengthening of major commodity prices, **gross exports** are projected to register stronger growth of 4.6% per annum, with a focus on increasing higher-value exports. Exports of manufactured goods is expected to grow by 5% per annum, driven by both E&E and resource-based exports. The growth in E&E exports will be led by semiconductor sales following continuous demand for smart devices. Mineral exports growth will be sustained at 3.2% during the Plan period, supported by exports and re-exports of petroleum products, LNG, and chemicals and chemical products. Agriculture exports are expected to improve by 2.3%, led by palm oil.

In tandem with the improved exports performance and domestic economic activities, **gross imports** are estimated to expand by 4.8% per annum. Stronger world demand will encourage more domestic

investment that will require imports of more intermediate and capital goods. Imports of consumption goods are also projected to strengthen as Malaysia becomes a high-income economy by 2020. Nevertheless, the trade balance is expected to remain positive with a surplus target of RM57.3 billion by 2020.

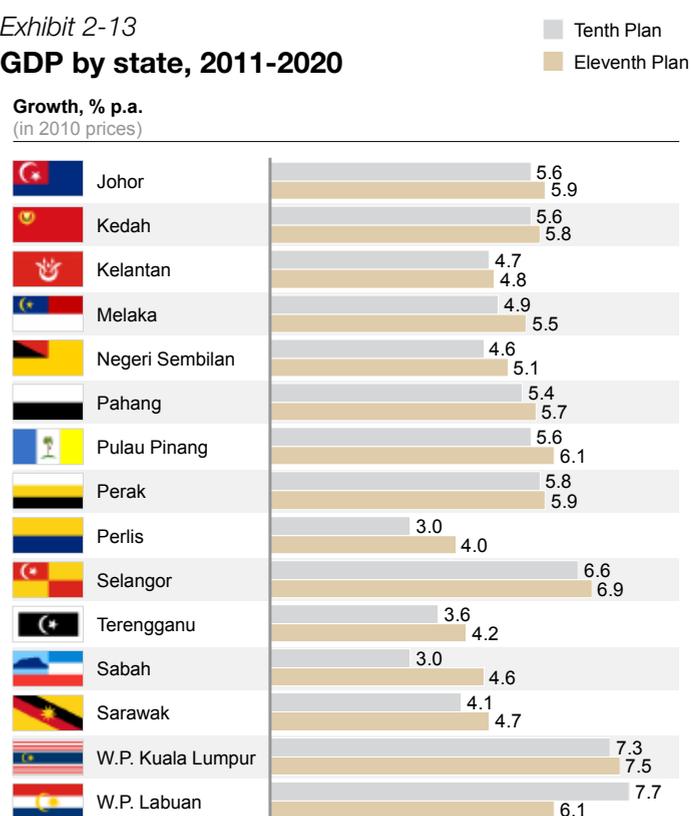
During the Eleventh Plan, several strategies will be introduced to spur export growth to improve Malaysia's trade balance. Efforts will also be undertaken to enhance SME contribution to exports to 25% by 2020 from 19% in 2015. The NEC will enhance the contribution of exports to the economy, where several key strategies to spur export growth will be implemented as follows:

- Improving the export ecosystem by upgrading infrastructure and reducing bureaucratic requirements
- Moving up the value chain by encouraging companies to invest in new technologies to participate at the higher end of the global supply chain
- Maximising opportunities with strategic partners to increase trade with the PRC and ASEAN
- Increasing external industry expert support and shifting to more proactive export promotion approaches

The **current account balance of the BOP** is projected to remain in surplus and expected to record RM46.5 billion or 2.6% of GNI by 2020. This is contributed by a higher surplus in the goods account while recording a lower deficit in the services account and primary income, particularly in investment income account. The deficit reduction in the services account will be supported by the increase in tourism receipts and increased activities related to the storage and trading hub at the Pengerang Integrated Petroleum Complex (PIPC). Services exports are also expected to increase with greater internationalisation of the services sector. In order to reduce the deficit in the primary income account, the Government will encourage re-investment of earnings from targeted FDI as well as provide a comprehensive and conducive ecosystem for new investments.

Exhibit 2-13

### GDP by state, 2011-2020



### **Federal Government fiscal position**

The Government is committed towards meeting its fiscal consolidation target of a balanced budget by 2020 by continuing and expanding upon the structural reforms initiated during the Tenth Plan. The main strategy to enhance fiscal flexibility under the Eleventh Plan is to strengthen the efficiency of revenue collection and to undertake more disciplined and prudent use of Government funds. The efficiency and effectiveness of the existing taxation system will be further enhanced, following from the implementation of the GST in 2015.

The introduction of the GST will bring in an estimated average of RM31.4 billion revenue per year over the next five years compared to an average of RM15.5 billion collected through the sales tax and services tax during the Tenth Plan, which will strengthen the fiscal position. This will be further improved by among others, reviewing dividends received from Government-linked companies and undertaking greater joint audit efforts by the Inland Revenue Board and the Royal Malaysian Customs Department. Revenue is targeted to expand by 7.9% per annum and the dependence on oil-related revenue to decline to 15.5% by 2020 from 21.5% in 2015.

Prudent spending practice will be enhanced by among others, further rationalising subsidies, adopting accrual accounting at all government agencies and ministries as well as introducing the Creativity Index to evaluate the socio-economic impact of programmes and projects. The rationalisation of the public service during the Plan period will also contribute towards more moderate operating expenditure.

Development expenditure will be an important instrument to achieve the goal of becoming an advanced economy and inclusive nation that will rely more on productivity improvements, intellectual capital, skills, innovation and technology. As such, development allocation will continue to prioritise non-physical programmes in the Eleventh Plan. The development allocation during the Plan period is estimated to be RM260 billion, where the focus will be on the economic and social sectors. With these measures, the Federal Government total debt is projected to further decline to below 45% of GDP by 2020.

### **Inflation and labour market**

Accommodative monetary policy and administrative measures will continue to ensure price stability. Inflation during the Plan period is expected to remain low, averaging between 2.5% and 3% per annum.

The economy is projected to maintain full employment with an estimated unemployment rate of 2.8% by 2020. Employment is expected to grow at a slower rate of 2.1% per annum to reach 15.3 million by 2020, with additional 1.5 million jobs created. The services sector is expected to contribute 62.5% to total employment, while the manufacturing sector 18.2%. This slower growth corresponds with the improvements in labour productivity and the shift from a labour-intensive economy to a capital, technology and knowledge-based economy. The composition of skilled jobs, such as senior officials and managers, professionals and technicians, and associate professionals, is targeted to reach 35% of employment by 2020.

## Conclusion

During the Eleventh Plan, the economy is expected to experience strong growth on the back of continued firm domestic demand and improved external sector. Macroeconomic fundamentals will be further strengthened to enhance economic resilience through a further diversified economic base, larger domestic savings, balanced fiscal position, low inflation, full employment, and sound financial system. Initiatives to enhance productivity at the national, industry and enterprise levels will further boost growth. This will be accompanied by higher national per capita and household incomes as well as improved wellbeing of the *rakyat* in line with the focus on the people economy.



# Enhancing inclusiveness towards an equitable society

## Overview

### Highlights Tenth Malaysia Plan, 2011-2015: Achievements

### Looking back Tenth Malaysia Plan, 2011-2015: Progress

Elevating the livelihood  
of the B40 households

Building a progressive and  
more inclusive society

Ensuring accessibility to  
basic infrastructure and  
services

Promoting corridors as an  
engine of growth

Enhancing Bumiputera  
economic participation

### Summary of focus areas Eleventh Malaysia Plan, 2016-2020

### Moving forward Eleventh Malaysia Plan, 2016-2020

Focus area A: Uplifting  
B40 households towards a  
middle-class society

Focus area B: Empowering  
communities for a productive  
and prosperous society

Focus area C: Transforming  
rural areas to uplift wellbeing  
of rural communities

Focus area D: Accelerating  
regional growth for better  
geographic balance

Focus area E: Enhancing  
Bumiputera Economic  
Community (BEC)  
opportunities to increase  
wealth ownership

### Conclusion



## Overview

Inclusivity is a key principle in Malaysia's national socio-economic development agenda, to ensure all citizens enjoy the fruits of growth and development regardless of ethnicity, socio-economic status and geographic location. Malaysia has long emphasised the importance of balanced growth by providing access to education and skills training, infrastructure, and employment opportunities to boost outcomes for all segments of society, in particular the low-income group. Moving forward, the focus will be on ensuring more equitable access to economic growth opportunities while increasing wellbeing and quality of life across all segments. Non-productive aid programmes will be reduced in favour of more sustainable wealth creation initiatives. The delivery mechanism will be strengthened across government, encouraging more active participation from the private sector and civil society.

**During the Tenth Malaysia Plan, 2011-2015,** inclusivity was a key strategy towards achieving a prosperous and equitable society. Targeted implementation of development and empowerment programmes resulted in an increase in the socio-economic status of Malaysians. Overall income distribution improved, with the Gini coefficient reducing from 0.441 in 2009 to 0.401 in 2014, exceeding the 2015 target of 0.420. Mean monthly household income of the bottom 40% households income group (B40 households) increased to RM2,537 in 2014 from RM1,440 in 2009. The provision of rural basic infrastructure combined with entrepreneur development activities has enabled people in rural and remote areas to increase their participation in socio-economic development. Focused development in regional economic corridors has also attracted investment and created jobs for locals, especially in less developed areas. Despite these achievements, more needs to be done to ensure that fruits of development are enjoyed and benefit all communities.

**In the Eleventh Malaysia Plan,** 2016-2020, the Government will continue to focus on enhancing inclusiveness and equitable opportunities for all Malaysians. Strategies aim to increase the overall household income of B40 households towards improving the quality of life and wellbeing of the *rakyat*. Income inequality is expected to improve further with the Gini coefficient reducing to 0.385 in 2020. The focus will be on addressing the needs of identified target groups, prioritising conditional and outcome-based support, whether economic or social. Assistance and subsidies not linked to productivity will be reduced in favour of programmes focused on creating improved wealth ownership and increasing education and skill levels. Specific strategies include uplifting the B40 households towards a middle-class society; empowering communities for increased economic participation; transforming rural areas to uplift wellbeing of rural communities; accelerating regional growth; and enhancing Bumiputera economic opportunities.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements

0.401

Gini coefficient reduced from 0.441 in 2009 surpassing the 2015 target of 0.420

**Increasing income equality**

RM2,537

Mean B40 household income, increased from RM1,440 in 2009

**Elevating the livelihood of B40 households**

0.6%

Incidence of poverty in 2014, from 3.8% in 2009

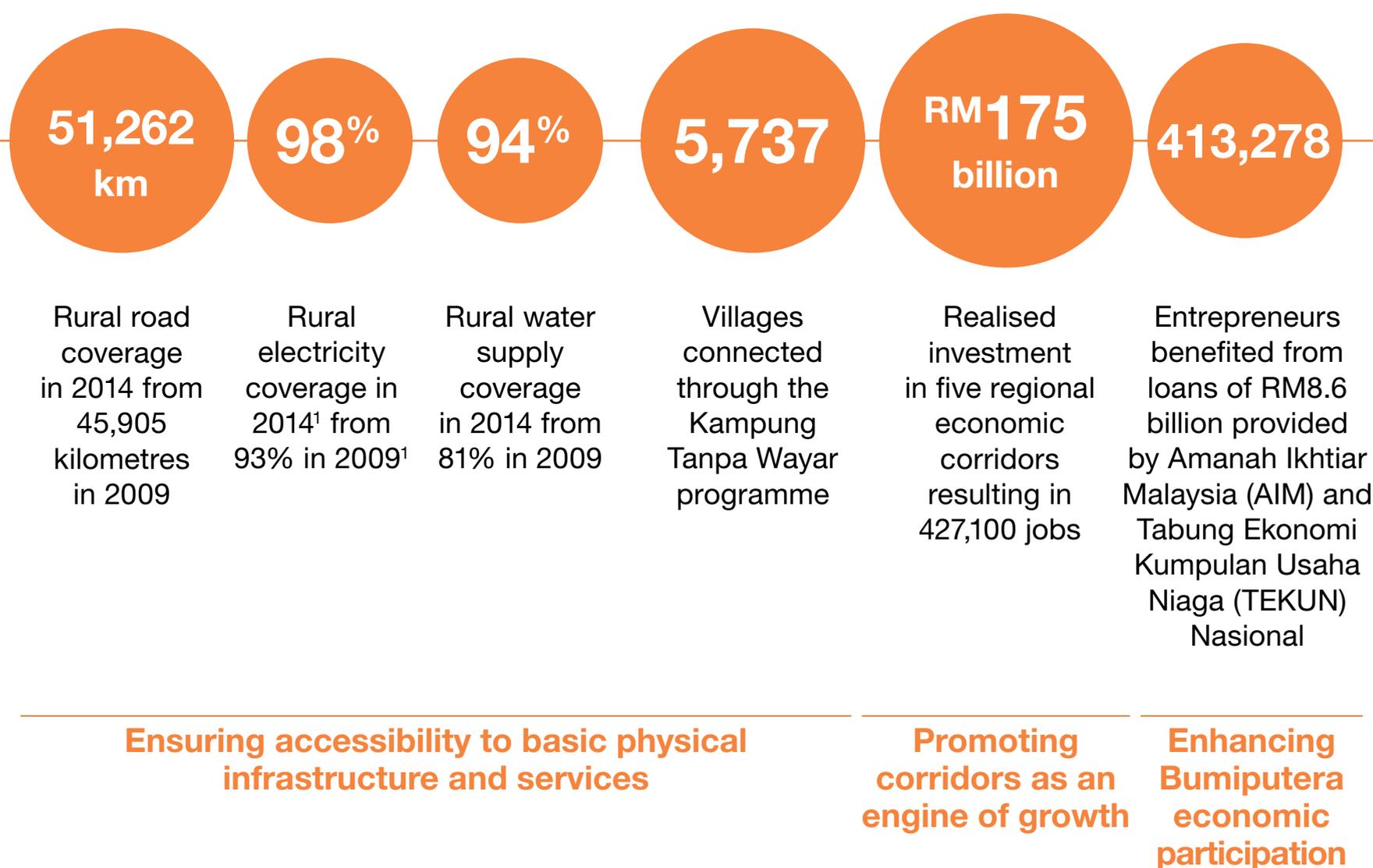
896,612

Youth participated in programmes to build leadership, entrepreneurship and volunteerism

**Building a progressive and more inclusive society**

53.6%

Female labour force participation rate in 2014 an increase from 46.4% in 2009



<sup>1</sup> Actual figures for 2009 is 92.3% while 2014 is 97.6%

# Looking back

## Tenth Malaysia Plan, 2011-2015: Progress

Efforts were made to ensure Malaysia's prosperity was shared by all groups, regardless of gender, ethnicity, socio-economic status, and geographic location.

During the Tenth Plan, initiatives to enhance inclusivity included elevating the livelihood of the B40 households; building a progressive and more inclusive society; ensuring accessibility to basic infrastructure and services; promoting corridors as an engine of growth; and enhancing Bumiputera economic participation.

The overall income distribution improved as indicated by the reduction of the Gini coefficient from 0.441 in 2009 to 0.401 in 2014, surpassing the 2015 target of 0.420. In urban areas, the Gini coefficient improved from 0.423 to 0.391, while in rural areas the Gini coefficient improved from 0.407 to 0.355 during the same period.

### Elevating the livelihood of the B40 households

B40 households refers to households that are at the bottom 40% of income distribution. In 2009, the mean monthly income of B40 households was RM1,440; by 2014 it was RM2,537.

### Raising income generation potential of B40 households

Efforts were undertaken to elevate the quality of life of rural households and enhance the economic participation of urban households through income generating activities, human capital development, and micro-enterprise support programmes.

Exhibit 3-1

### Bottom 40 households: achievements during the Tenth Plan



#### Elevating the quality of life of rural households

Programme	Achievements
Providing holistic support programmes for micro-enterprises	7,801 participants
Providing business ownership opportunity for capable entrepreneurs	Income of 225,867 participants increased by more than RM2,000 per month
Linking rural talent to employers in nearby clusters and cities	701 participants attained skills training to match job opportunities
Increasing income sustainability in the agriculture sector through the concept of agropolitan and contract farming	3,486 participants income increased by RM1,200 per month
Improving productivity in rural agriculture and agro-based industries	38,663 participants had additional income at least RM300
Increasing land productivity and yield through land amalgamation	<ul style="list-style-type: none"> <li>Rubber at 1,276.45 kg/ha (2012)</li> <li>Palm oil at 15.54 MT/ha (2012)</li> </ul>



#### Enhancing the economic participation of urban households

Programme	Achievements
Establishing industry-specific skills centres based on targeted geographical areas	3,100 participants attended skills training
Expanding micro-enterprise support programmes	8,580 participants attained entrepreneurship training
Extending the incubator concept to increase entrepreneurship and employment opportunities	1,726 GIATMARA incubators developed



#### Raising household income through information and communications technology (ICT)

Programme	Achievements
eRezeki micro-sourcing to generate income	39,518 participants with total revenue of RM6.87 million

### Assisting children in B40 households to boost their education and skills attainment

Initiatives to address the educational needs of children in B40 households include the implementation of 1Asrama and Asrama Desa programmes which reduced student dropouts from 47,260 in 2010 to 43,428 in 2013. In addition, as of 2014, 1.51 million students benefited from financial aid including Kumpulan Wang Amanah Pelajar Miskin (KWAPM) and Rancangan Makanan Tambahan (RMT).

### Strengthening social safety net to reduce vulnerability

Social Safety Net (SSN) initiatives were implemented to address vulnerability issues and protect the livelihoods of B40 households from economic shocks. Among the outcomes delivered were: 55,000 households received housing assistance; 9.2 million individuals benefited from enhanced access to healthcare services through the 1Malaysia Clinics, 1Malaysia Mobile Clinics, and Flying Doctor services; 493,076 individuals received income support assistance focused on senior citizens and nonworking persons with disabilities (PWD); and 7 million individuals received Bantuan Rakyat 1Malaysia (BR1M) cash assistance.

### Addressing the needs of special target groups

The needs of special target groups, such as the Orang Asli in Peninsular Malaysia and those living in rural and remote areas in Sabah and Sarawak, were addressed through land development and ownership, as well as skills training programmes. A total of 32,561 hectares of Native Customary Rights (NCR) land were gazetted for Orang Asli in Peninsular Malaysia, 26,956 hectares for Bumiputera in Sabah, and 558,571 hectares for Bumiputera in Sarawak. The number of Orang Asli receiving skills training increased from 435 in 2011 to 3,750 in 2014, while 2,100 Bumiputera in Sabah and Sarawak also benefited from various skills training programmes.

In addition, a total of 4,446 Chinese new village residents were assisted through the Special Financial Loan Scheme for New Village Residents. Total loans provided as of 2014 were worth RM142 million.

Entrepreneurship and skills training programmes were provided for the poor Indian community, benefiting 167,500 individuals. Of these, more than 10,000 youth participated in skills training programmes, while 30,000 adults participated in entrepreneurial training programmes. 127,500 primary and secondary school students benefited from educational enhancement programmes.

## Building a progressive and more inclusive society

### Strengthening the family institution

During the Tenth Plan, priority was given to inculcate positive family values to strengthen the family institution. 1.29 million people participated in programmes implemented by the National Population and Family Development Board (LPPKN), namely Family Education@LPPKN, SMARTSTART, Parenting@Work, and SMARTbelanja@LPPKN. In addition, 165,000 families benefited from programmes conducted at four established One-stop Family Service Centres, such as counselling, mediation, stress-relief therapy, and reproductive health services.

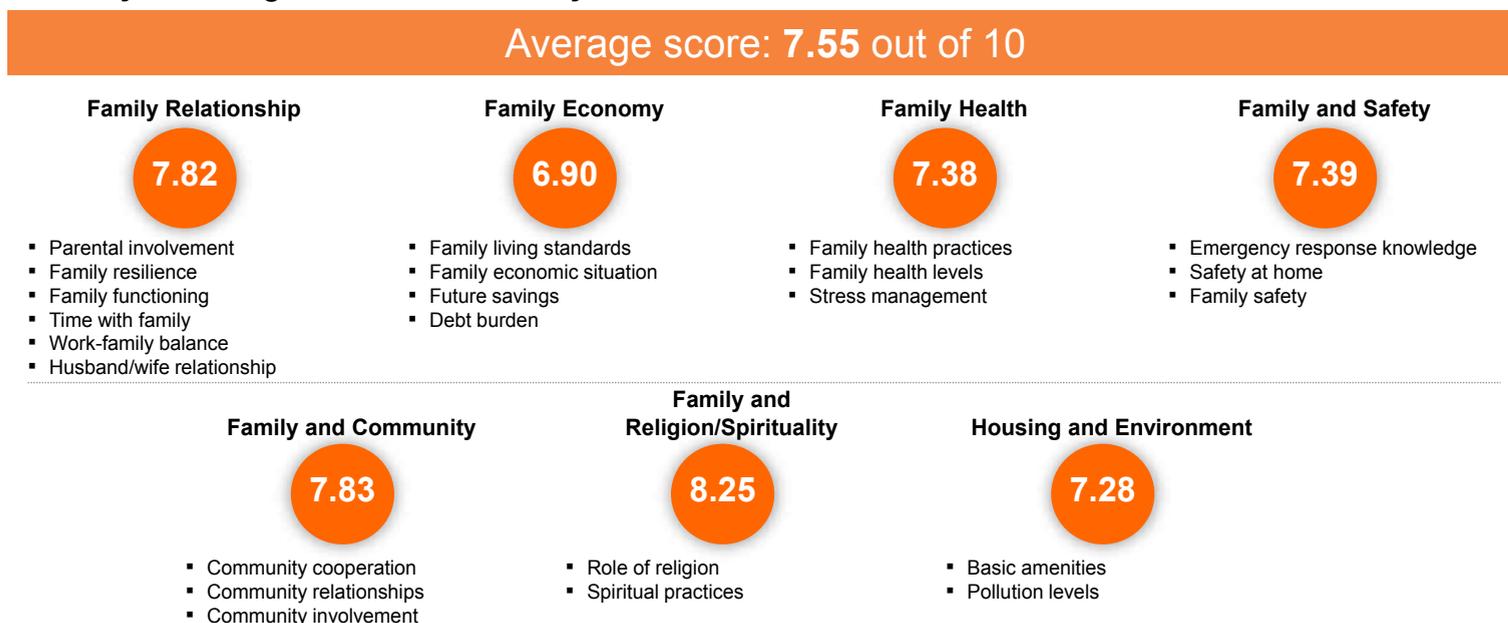
The Family Wellbeing Index was developed by LPPKN in 2011 to measure the state of family wellbeing in Malaysia against seven domains and 23 indicators. The average score in 2011 was 7.55 out of 10. The domain that scored the least is family economy, particularly in the areas of saving for the future and debt burden, followed by housing and environment.

### Moulding youth to become dynamic and inspired future leaders

885,800 youth participated in youth development programmes between 2011 and 2013 in the areas of leadership, socio-economic development, volunteerism, and international youth cooperation. In addition, 10,812 youth participated in entrepreneurship programmes to enhance their skills and capabilities in doing business, namely Program 3K (Kepimpinan, Kemahiran and Keusahawanan), Belia Bestari, Outreach Usahawan, and Smart Partnership Usahawan Belia.

Exhibit 3-2

### The Family Wellbeing Index is measured by 23 indicators across seven domains



### Increasing women participation in the labour force and entrepreneurship

The female labour force participation rate increased from 46.4% in 2009 to 53.6% in 2014 (and estimated to be 55% in 2015), driven by a range of initiatives to increase participation through better workplace practices. These included tax incentives to encourage employers to train and re-employ women who have been out of the workforce, and grants for renovation and furnishing of childcare centres within government offices. In addition, initiatives were implemented to grow women entrepreneurs such as the Micro Credit and Small Business Loan Scheme, Get Malaysia Business Online (GMBO), and Women Exporters Development Programme.

Women in leadership continued to rise, with women in top management positions in the public sector increasing from 30.5% in 2010 to 32.5% in 2014. Women accounted for 10.2% of directors on the boards of public listed companies (PLCs) in 2014 as compared to the target of 30% by 2016.

### Ensuring the protection and wellbeing of children

Under the Tenth Plan, the protection and wellbeing of children continued to be strengthened. Among others, Talian Nur 15999, a helpline for the

community and CHILDLINE, a dedicated line to receive feedback and information on matters pertaining to children, was established. In 2010 to 2014, a total of 4,116 cases related to child issues were reported through Talian Nur and 3,976 cases were resolved, with 140 cases pending and under further investigation. Meanwhile, a multimedia messaging service (MMS) and short messaging service (SMS) system called Nur Alert, established in 2010, continued to disseminate and seek information and feedback on missing children below 12 years old.

Six pilot projects were established to provide affordable childcare services for 79 children with special needs such as children with Down's Syndrome, learning difficulties, hearing disabilities, visual impairment, autism, and physical disabilities. As a result of initiatives to promote awareness among parents, 68,400 new registrations of children with disabilities were recorded during 2011 to 2014.

### Supporting the elderly to lead productive and fulfilling societal roles

The mandatory retirement was increased to 60 years across the public and private sector in 2012 and 2013 respectively. Extending the retirement age enables this segment of the workforce to continue

contributing towards national socio-economic development. In addition, a 100% tax rebate on costs to retrain older workers was introduced to encourage them to re-enter the labour market.

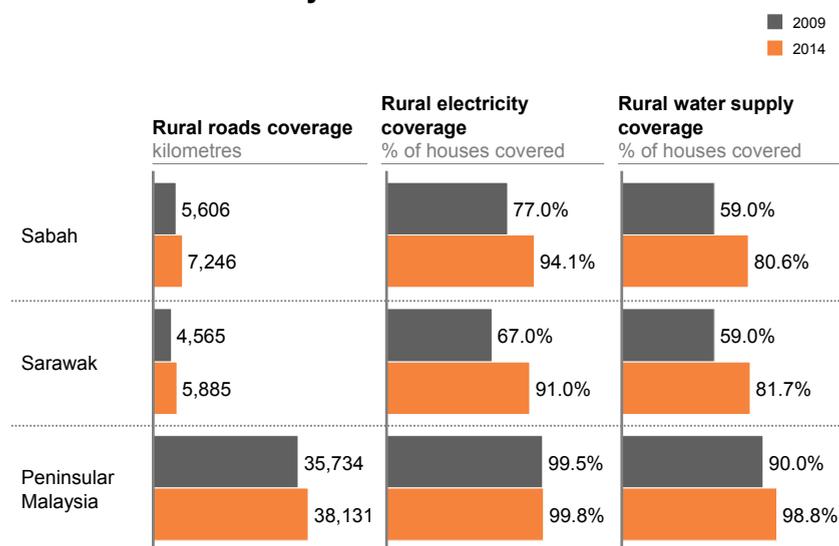
Healthcare support for the elderly was also extended in 2012, with patients aged 60 and above exempted from paying the outpatient fee in government clinics and hospitals. They are only required to pay a nominal fee for specialist care, medication, and hospitalisation. 6,320 persons also benefited from the volunteer-based Home Help Services programme to assist and support the elderly and PWD living alone to live more independently and in comfort.

### Integrating persons with disabilities into society

Sistem Maklumat Orang Kurang Upaya (SMOKU) was established in 2011 to improve planning and delivery of programmes for PWD. As at September 2014, a total of 322,700 PWD were registered in the system.

Exhibit 3-3

### Significant progress has been made in rural basic infrastructure delivery for Sabah and Sarawak



Source: Ministry of Rural and Regional Development

To increase the participation of PWD in economic activities, the Government introduced employment support services for PWD including the Job Coach Programme. In line with the policy allocating 1% of jobs opportunities in the public sector for PWD, 0.2% of total public servants in 2014 are now PWD, excluding the uniformed and enforcement bodies.

### Ensuring accessibility to basic infrastructure and services

During the Tenth Plan, rural road coverage expanded by 11.7% from 45,905 kilometres in 2009 to 51,262 kilometres in 2014. In Sarawak, 250 kilometres of ex-logging roads were upgraded to provide accessibility to 31,512 people in underserved rural areas. Rural electricity coverage reached 97.6% and water supply reached 93.8%. 188,270 water tanks were provided to supply clean water to 251,200 households in remote areas in Sabah and Sarawak.

1,122 telecentres were established to enhance digital inclusion and inculcate a culture of innovation and creativity. In addition, 5,737 villages were connected through the Kampung Tanpa Wayar programme and 971 telecommunication towers constructed. The increased access to the Internet enabled rural and suburban communities to acquire new skills and knowledge, and generate alternative sources of income.

77 Mobile Community Transformation Centre (Mobile CTC) programmes involving more than 50 government and private agencies were organised, benefiting almost 135,000 people. These Mobile CTC programmes are a key touch point bringing government services to the rural community, especially in remote areas. Activities such as sports, community services, and social gatherings were also organised in parallel to bring people together and promote unity. The Mobile CTCs also provide a platform for the government to channel assistance directly to the target groups, including micro-credit facilities.

Financial inclusion has also increased with 4,351 Bank Simpanan Nasional (BSN) agents appointed throughout the nation to provide banking services, including savings and withdrawal transactions, as well as bill payment.



## Promoting corridors as an engine of growth

During the Tenth Plan, regional economic corridors attracted a total of RM307.1 billion committed investments, of which 56.8% or RM174.5 billion was realised. The realised investments resulted in 427,100 jobs created.

In addition to investments and job opportunities, regional economic corridors also continued to uplift the lives of communities in surrounding areas. A number of initiatives were implemented across the regional economic corridors to enable local communities to benefit from the development taking place in the region.

*Exhibit 3-4*

### Investment by regional economic corridors, 2011-2014

Regional Economic Corridors	Investment, RM billion		Jobs '000
	Committed	Realised	
Iskandar Malaysia (IM)	90.4	47.1	320.1
Northern Corridor Economic Region (NCER)	51.7	51.7	63.5
East Coast Economic Region (ECER)	55.4	22.9	23.0
Sabah Development Corridor (SDC)	96.7	44.5	15.2
Sarawak Corridor of Renewable Energy (SCORE)	12.9	8.3	5.3
<b>Total</b>	<b>307.1</b>	<b>174.5</b>	<b>427.1</b>

Source: Regional Corridor Authorities

### Iskandar Malaysia

Housing, transportation linkages, skills training, and entrepreneur development continued to be a priority in Iskandar Malaysia

- 1,500 unit of affordable homes were built in the region, as well as 2,720 units of housing for squatter relocation
- Program Bas Iskandar Malaysia was set up to cater for public transportation needs in non-profitable routes, with 34 buses serving 17 routes
- Employability and upskilling or reskilling programmes have enabled local communities to participate in the economic development of the region, such as 950 individuals trained for the hospitality industry with 90% obtaining jobs
- Entrepreneur development programmes were conducted in collaboration with other agencies, including the Internet Marketing Development Programme which saw participants increase sales by 30-60%

### Northern Corridor Economic Region

Initiatives in the Northern Corridor Economic Region (NCER) focused on skills training for increased employability, welfare, and social inclusion programmes

- 202 students with learning disabilities successfully completed a training programme to cultivate and market mushrooms and chillies, while 20 teachers were certified as coaches to continue coaching more students, in collaboration with the Penang State Education Department, the Agriculture Vocational School Enterprise Training Programme, and the private sector
- Repaired dilapidated houses and public facilities, benefiting 760 households in collaboration with Akademi Binaan Malaysia (ABM)
- Social inclusion initiatives include ecotourism training for Orang Asli in the Belum-Temenggor tropical rainforest area to create additional streams of income



**EAST  
COAST  
ECONOMIC  
REGION**

### East Coast Economic Region

In ensuring inclusivity of vulnerable groups, the East Coast Economic Region (ECER) developed a range of entrepreneurship development programmes to broaden the abilities of target groups such as women, youth and unemployed to participate in the economy

- Empower ECER Programme trained 4,050 participants in entrepreneurship skills, with an 83% success rate, while 7,045 participants are currently undergoing training
- ECER Entrepreneurship Development Programme (EEDP), has trained 1,893 participants to increase the involvement of Bumiputera and SMEs in economic activities through programmes conducted in collaboration with Standards and Industrial Research Institute of Malaysia (SIRIM), Agrobank, and GIATMARA
- Suri@Home Programme creates home-based business opportunities for housewives and single mothers to supplement household incomes. 38 women have participated thus far, increasing their monthly incomes by an additional RM400 - RM2,000



**SABAH  
DEVELOPMENT CORRIDOR**

### Sabah Development Corridor

Initiatives to increase opportunities for local communities in the Sabah Development Corridor (SDC) focused on skills training programmes

- 800 local participants were trained to become technopreneurs in the agri-based industry through exposure and knowledge transfer in the processing of agri-food and specialty natural products
- 20 graduates participated in the Accelerated Skill Enhancement Training Programme to reskill or upskill them for hospitality jobs, benefiting from increasing investments in the tourism sector
- University College Sabah Foundation (UCSF) together with Sabah Economic Development and Investment Authority (SEDIA) has conducted programmes in creative content skill development under Sabah Animation Creative Content Centre (SAC3) with enrolment of 600 participants in certificate, diploma, and degree level



**SARAWAK  
SCORE  
CORRIDOR OF RENEWABLE ENERGY**

### Sarawak Corridor of Renewable Energy

In the Sarawak Corridor of Renewable Energy (SCORE), focus has been on the provision of infrastructure and access to economic opportunities

- Unit Peneraju Agenda Bumiputera (TERAJU) has allocated RM100 million for entrepreneur development, including RM1.5 million for a fishmeal and surimi processing enterprise and RM16.1 million Facilitation Fund allocated to 4 local companies enabling them to provide support services to Petroliam Nasional Berhad (PETRONAS) and Bintulu Port
- Yayasan Peneraju Pendidikan Bumiputera (YPPB) delivered education programmes, including support for professional qualifications such as the Association of Exhibited Certified Accountants (ACCA) and Welding Apprentice Programme
- Construction of access roads to Murum and Baram Dam that provided paved road access to more than 40 villages and 25,000 people

## Enhancing Bumiputera economic participation

### Strengthening Bumiputera entrepreneurship

The development of the Bumiputera Economic Community (BEC) involved specific initiatives for Bumiputera companies based on their business needs. Entrepreneurs were assisted in terms of financing, support services, and capacity building. Over RM9 billion in financial assistance was provided to more than 414,000 Bumiputera businesses:

- Loans of RM8.6 billion benefited 413,278 micro and small businesses:
  - AIM: entrepreneurs earning more than RM3,500 increased from 27,770 in 2010 to 128,450 in 2014
  - TEKUN Nasional: 32.7% of entrepreneurs recorded an increase in revenue of 50-150% in 2013
- Financial assistance totalling RM495.2 million to 760 Bumiputera small and medium enterprises (SMEs) in the development and growth stage, by Malaysia Technology Development Corporation (MTDC), Malaysia Venture Capital Management Berhad, Malaysia Debt Ventures Bhd, and Multimedia Development Corporation (MDeC).

### Broadening and increasing Bumiputera wealth ownership

Bumiputera corporate equity ownership increased during the Tenth Plan period. This achievement was contributed by initiatives from various government-linked investment companies (GLICs). These included the launching of 10 billion units of Amanah Saham Bumiputera 2 (ASB2) by Permodalan Nasional Berhad (PNB) and RM3 billion economic capital deployment through Ekuiti Nasional Berhad (EKUINAS). In addition, the collaborative partnership between EKUINAS and TERAJU in Skim Jejak Jaya Bumiputera (SJJJB) enabled 10 companies to be listed on Bursa Malaysia with market capitalisation of RM4.1 billion.

In the area of non-financial assets, Pelaburan Hartanah Berhad (PHB) played a major role to increase Bumiputera ownership of commercial asset at prime locations in major cities. By 2014, PHB invested in 14 completed properties, one property development, land bank and other investment worth RM6.7 billion. The Amanah Hartanah Bumiputera (AHB) fund was launched to provide opportunities to Bumiputera investors to participate in the ownership of prime commercial properties. All two billion AHB units were fully subscribed. UDA Holdings Berhad (UDA), cumulatively since 2001 also sold 77% out of 7,697 residential units and 83% out of 560 retail spaces to Bumiputera.

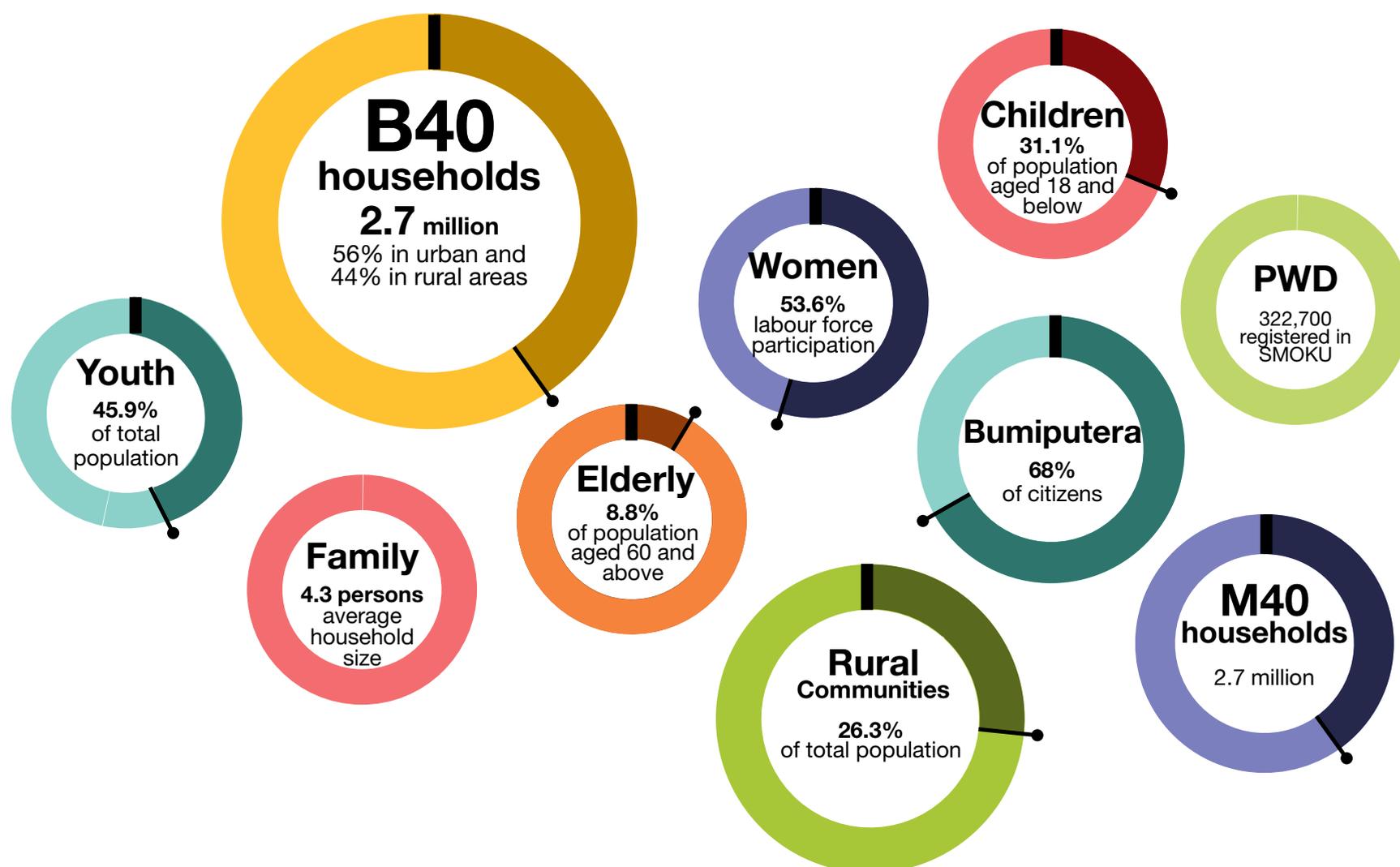
### Preparing Bumiputera for high paying jobs

Technical and skills training was provided for Bumiputera to enable them to secure high paying jobs. YPPB trained 2,623 participants in fields such as oil and gas, finance, and accounting through Program Peneraju Skil and Program Peneraju Profesional. Majlis Amanah Rakyat (MARA) also provided places in universities and technical training institutions to 101,010 students and financial assistance to 86,446 students for their education.

\* \* \*

The strategies implemented in the Tenth Plan have resulted in a more inclusive society through poverty reduction, increased household income, reduction in income disparity, and improved quality of life in rural households. Notwithstanding the progress achieved over the last five years, there are several issues and challenges that remain to be addressed in the Eleventh Plan. These include addressing the socio-economic gap among B40 households and vulnerable groups, inadequate basic infrastructure in rural and remote areas, imbalances in regional economic opportunities, and socio-economic disparity among segments of the Bumiputera community.

Exhibit 3-5

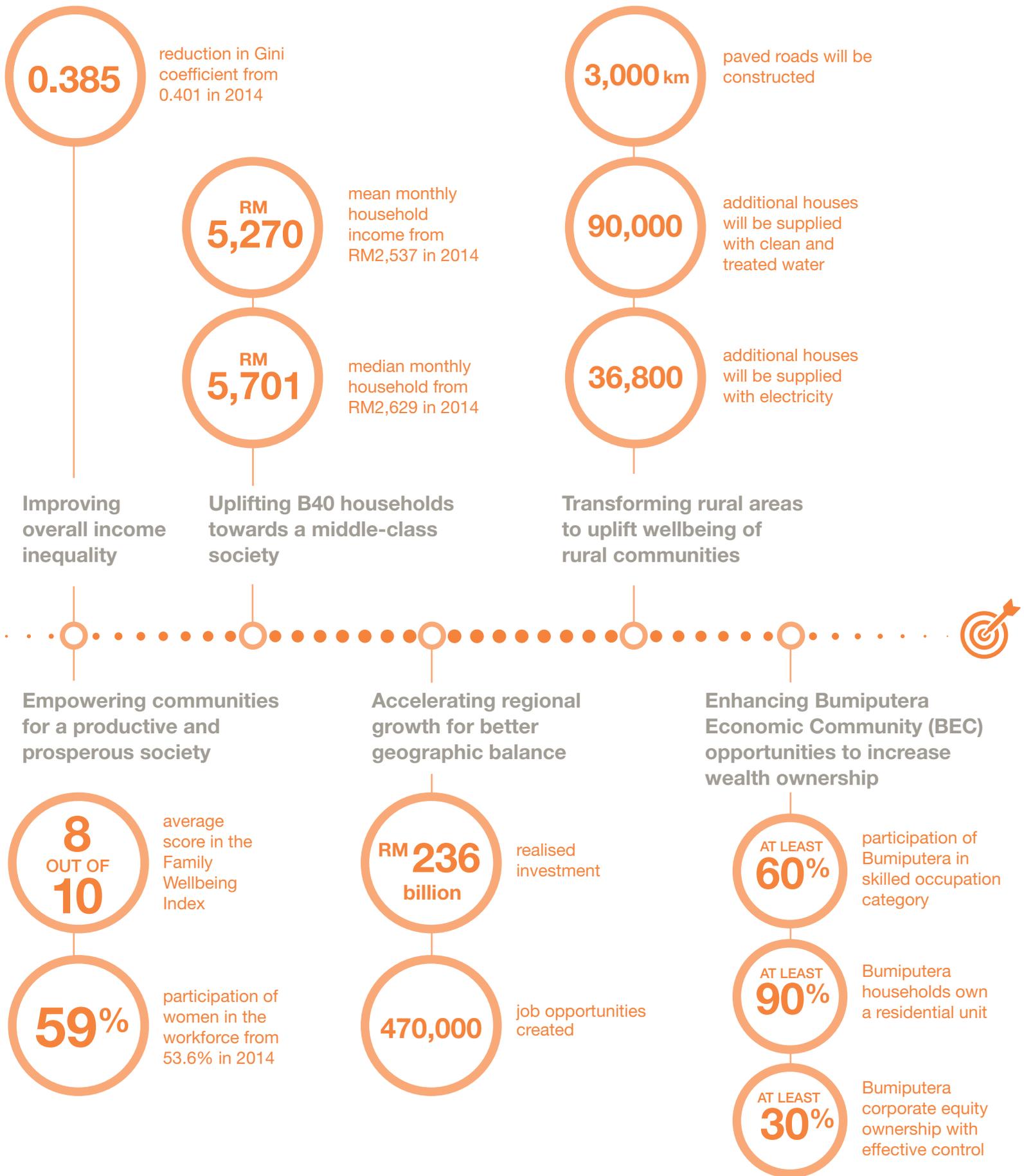
**Target segments for Eleventh Plan**  
(Estimates as of 2014)

# Summary of focus areas

## Eleventh Malaysia Plan, 2016-2020



# SELECTED OUTCOMES



# Moving forward

## Eleventh Malaysia Plan, 2016-2020

There will be increased focus on enhancing inclusiveness towards providing more equitable opportunities for Malaysians to participate in economic growth. Assistance and subsidies not linked to productivity will be reduced in favour of programmes focused on creating improved wealth ownership and increasing education and skill levels.

During the Eleventh Plan, the philosophy of growth with equity will continue, with increased focus on enhancing inclusiveness. Efforts will be directed towards providing more equitable opportunities for Malaysians to participate in economic growth with increased distribution of national wealth. Higher household income will improve the quality of life and wellbeing of the *rakyat*. The implementation approach will be multidimensional, based on the principles of being market-friendly, needs-based, merit-based, transparent, pro-growth, and sustainable.

Addressing the needs of these varied segments of Malaysians will require a range of mid-to-longer term interventions, in addition to targeted support to cushion the effect of impending macroeconomic challenges. Every effort will be made to support the needy and vulnerable segments of society. Key shifts that will be made during this period include prioritising conditional and outcome-based support, whether economic or social. Assistance and subsidies not linked to productivity will be reduced in favour of programmes focused on creating improved wealth ownership and increasing education and skill levels. These are crucial factors that will enable B40 households to increase their overall quality of life and advance towards the middle-class society. Adoption of modern technology to increase productivity levels will be encouraged, especially in agriculture.

Income inequality is expected to improve further with the Gini coefficient reducing from 0.401 in 2014 to 0.385 in 2020. Overall household incomes are expected to increase, reducing the urban-rural income gap. This will be achieved by prioritising five focus areas:

- Focus area A: Uplifting B40 households towards a middle-class society
- Focus area B: Empowering communities for a productive and prosperous society
- Focus area C: Transforming rural areas to uplift wellbeing of rural communities
- Focus area D: Accelerating regional growth for better geographic balance
- Focus area E: Enhancing Bumiputera Economic Community (BEC) opportunities to increase wealth ownership



## Focus area A

# Uplifting B40 households towards a middle-class society

During the Eleventh Plan, focus will be given to lifting the economic opportunities and participation of B40 households to ensure that Malaysia's prosperity can be shared by all Malaysians, regardless of the ethnicity, socio-economic status, and geographic location. Uplifting the quality of life of B40 households will be a game changer for Malaysia as upskilling and providing job opportunities to the 2.7 million B40 households, will increase the nation's skilled workforce and reduce inequality passed on to future generations. By uplifting B40 households, Malaysia will take a large step towards becoming an advanced and more inclusive nation.

- **Strategy A1: Raising the income and wealth of B40 households** by enlarging the middle-class society; reducing school dropouts; enhancing accessibility to higher education and skills training; increasing productivity through adoption of modern technology; enhancing adoption of information and communications technology; enhancing integrated entrepreneurship support; developing community- and social-based enterprises; incentivising investment in majority B40 households areas; and increasing wealth ownership through investment programmes;
- **Strategy A2: Addressing the increasing cost of living** by strengthening the monitoring and enforcement of price control regulations; increasing the provision of affordable housing; increasing access to healthcare services; introducing an integrated and comprehensive social safety net; and enhancing financial and debt management programmes; and
- **Strategy A3: Enhancing the delivery system of B40 households programmes** by streamlining support to B40 households and complementing the Poverty Line Income (PLI) measurement with the Multidimensional Poverty Index (MPI).

## Strategy A1

### Raising the income and wealth of B40 households

#### Enlarging the middle-class society

In order to create a larger middle-class society, measures will be taken to spur the income growth of the aspirational group within the B40 households. These include narrowing the gap in post-secondary educational achievement. As the majority of the B40 households and aspirational group in urban areas are employed persons, employers will be incentivised to encourage their employees to pursue higher education and skill levels. Meanwhile, incentives such as soft loan facilities will be provided to employees to further their studies to enable them to secure better paying jobs for more comfortable living. In addition, more programmes in advanced skills training will be provided to enable them to enhance their opportunity to compete for higher paying jobs in technical areas.

SMEs owned by B40 households, and especially the aspirational group will be provided with better opportunities to improve their capacity through financing options and business facilitation. Partnerships with large firms will be initiated to provide more business opportunities for SMEs. Entrepreneur development organisations (EDOs) such as SME Corporation Malaysia (SME Corp), SME Bank, and MTDC will continue to provide entrepreneurial training relevant to market needs.



	From	To
Approach	Lifting B40 households above the poverty line through improved income levels and assistance with living costs	Uplifting B40 households to middle-class society by further improving income levels and wealth creation, as well as increasing education and skill levels
Scope	Assisting B40 households with individual micro-enterprises ----- Focus on developing micro-entrepreneurship and economic activities in low-value, traditional industries	Fostering community- and social-based enterprises among the B40 households, in addition to individual enterprises ----- Building capacity to participate in high-productivity, innovative and creative economic activities
Characteristics	B40 households have low wealth and non-financial asset ownership, and are easily affected by economic shocks ----- B40 households are highly reliant on government assistance	B40 households are able to save and build wealth including through non-financial asset ownership, making them more resilient to economic shocks ----- B40 households are independent and rely less on government assistance programmes

### Reducing school dropouts

Appropriate facilities such as hostel, transport, and financial aid will continue to be provided to students in rural and remote areas to enable them to complete primary and secondary education. The K9 School<sup>2</sup> will be expanded to increase student enrolment, particularly among the Orang Asli in Peninsular Malaysia, and those living in the rural and remote areas in Sabah and Sarawak. Special attention will also be given to address the needs of children from identified segments of disadvantaged groups, including children from Malay households in traditional villages, Indians from dislocated estates and urban areas, as well as Chinese from new villages. Special awareness programmes on the importance of education will be conducted for schoolchildren and their parents to inspire a mindset change.

### Enhancing accessibility to higher education and skills training

Accessibility to higher education and skills training among students from B40 households will be enhanced through special programmes. Institutions of higher learning and skills training institutes will be encouraged to provide more places for these students through preferential entry qualification criteria and enrolment quota. This will be complemented with the provision of financial aid. Special consideration will be given to potential students from Orang Asli communities in Peninsular Malaysia, and those living in rural and remote areas in Sabah and Sarawak.

### Increasing productivity through adoption of modern technology

B40 households in rural areas who are self-employed such as farmers, fishermen, and smallholders will be encouraged to adopt modern technology to increase productivity and income. Structured modular programmes focusing on modern farming techniques and good agricultural practices will be intensified. Amalgamation of land and merging of small scale business activities will also be encouraged to benefit from economies of scale. The role of relevant agencies such as Federal Agriculture Marketing Authority (FAMA), Malaysian Agricultural Research and Development Institute (MARDI), and Fisheries Development Authority of Malaysia (LKIM) will be streamlined to provide relevant services and facilitation to these households.

<sup>2</sup> K9 school is a primary school with secondary level from Form 1 to 3 (Source: Ministry of Education)

Large-scale plantation programmes such as Agropolitan, Ladang Masyarakat, Mini Estet Sejahtera (MESEJ), and Rancangan Penempatan Semula (RPS) will be expanded. Small-scale land holders will be encouraged to merge their plots to gain economies of scale and guarantee better income in the long-term through cooperatives. The process of granting communal and individual land ownership to Orang Asli in Peninsular Malaysia and those living in the rural and remote areas in Sabah and Sarawak will be expedited to enable land utilisation by these households. The Dasar Pelupusan dan Pemilikan Tanah Orang Asli (DPPTOA) and administrative procedures in granting NCR land ownership for those living in the rural and remote areas in Sabah and Sarawak will be reviewed.

In urban areas, abandoned buildings and unused spaces will be utilised for urban farming through the use of modern techniques such as fertigation, hydroponics, and vertical farming. Cooperative movements will spearhead this initiative in locations where the B40 households form the majority of the population. Urban farming activities will provide food for local community consumption and create job opportunities in production, processing, packaging, and marketing activities to generate additional income.

Small-scale B40 entrepreneurs involved in industries such as printing, food manufacturing, as well as vehicle repair and maintenance will be encouraged to use modern technology to increase productivity and lower cost of production, thus increasing income. Relevant agencies such as SME Corp, Malaysia Productivity Corporation (MPC), Halal Development Corporation (HDC), and Standards and Industrial Research Institute of Malaysia Berhad (SIRIM) will facilitate these entrepreneurs to adopt modern technology.

### **Enhancing adoption of information and communications technology**

The adoption of ICT will be accelerated to increase access to information on agriculture, business, education and health, and expand business and income earning opportunities to improve wellbeing. In this regard, the eRezeki programme for B40 households will be expanded to enable the use of ICT to generate additional income. Basic ICT

training will be provided before matching participants of the eRezeki programme with relevant jobs such as data entry, price monitoring, and document translation. These micro-tasks can be accomplished from homes or telecentres.

Business support through digital platforms for micro-enterprises will be expanded to enhance outreach and market access. To further expand the e-payment platform for micro-enterprises, affordable terminals and readers that are integrated with e-commerce solutions, will be provided. In addition, online business-matching services to local entrepreneurs will be introduced in telecentres.

### **Enhancing integrated entrepreneurship support**

SME Corp will coordinate the development of the SMEs owned by B40 households. Collaboration among agencies providing entrepreneurship support programmes to micro-, small- and medium-scale entrepreneurs in urban and rural areas such as SME Corp, TEKUN Nasional and AIM will be strengthened to provide integrated assistance and reduce overlapping activities. Broader business development opportunities will also be provided by these agencies. Micro-enterprises will also be linked to banking and financial institutions for easier access to funding.

Initiatives will include establishing smart partnerships with research and development (R&D) institutions to assist the SMEs to improve product quality, enhance compliance to standards and increase market access. In this regard, SME Corp will introduce integrated entrepreneurship development packages which cover start-up till market product placement activities. In addition, Urban Transformation Centre (UTC) and Rural Transformation Centre (RTC) facilities will be utilised to facilitate entrepreneur training programmes.

To encourage rural entrepreneurship, an appropriate socio-economic environment will be established to facilitate local activities. The entrepreneurial orientation programme focused on stimulating local entrepreneurial talent and growth of indigenous companies will be introduced. This is critical to create jobs and add economic value to rural areas while retaining scarce resources within the community. It is important to sustain this effort so that the entrepreneurship culture

is embedded within rural communities. Initiatives to enhance access to financing and entrepreneurship training, as well as the provision of advisory services, and business premises will be increased. These initiatives will enable the mobilisation of rural youths to be employed and participate in entrepreneurship activities to minimise migration to urban areas.

### **Developing community- and social-based enterprises**

A systematic approach will be introduced to develop community- and social-based enterprises on the cooperative model to carry out activities such as childcare services or crèches, tuition centres, and orphanages for B40 households in urban areas. Appropriate infrastructure and facilities will be provided, as well as leadership and management training to build the capacity and capability of these enterprises.

In rural areas, B40 households especially the Orang Asli in Peninsular Malaysia and those living in the rural and remote areas in Sabah and Sarawak, will be encouraged to establish cooperative-based community enterprises including through provision of initial funding by Suruhanjaya Koperasi Malaysia (SKM). These enterprises will focus on activities that leverage their strengths and distinct culture such as handicraft, forest-based products, ecotourism, and homestay. Youth in the rural area will be encouraged to participate in enterprises and dedicated programmes designed to induce the involvement of local community. Government-linked companies (GLCs) and government-linked investment companies (GLICs) will collaborate with the relevant local, regional, and corridor authorities to develop capabilities and provide business opportunities for these community enterprises.

### **Incentivising investment in majority B40 households areas**

The private sector, especially multinational corporations (MNCs) and large local companies, will be incentivised to locate their business operations in urban and rural areas with majority B40 households to provide better job opportunities for their local communities, especially high paying jobs. Investment in rural areas will leverage on local natural resources. Existing incentives such as double deduction and tax relief will be provided to encourage the MNCs and large local companies to employ and train the local workforce. Basic infrastructure and facilities will also be provided to support these businesses and reduce the cost of doing business. In the rural areas, integrated facilities such

as banking, postal, and marketing services will be provided in rural development centres, especially in Orang Asli settlements in Peninsular Malaysia and majority B40 households population in Sabah and Sarawak.

### **Increasing wealth ownership through investment programmes**

Unit trust schemes such as the Amanah Saham Wawasan (ASW), Amanah Saham 1Malaysia (AS1M), and Amanah Saham Gemilang will be further expanded to increase equity ownership among the B40 households. Awareness programmes on the benefits of such schemes will be intensified to increase the participation of B40 households in these schemes.

Cooperatives will be encouraged to participate in real estate investment trusts (REITs) to increase asset ownership among B40 households. The cooperatives will also undertake commercial property development in strategic locations and build affordable residential units for B40 households in urban areas.

## **Strategy A2**

### **Addressing the increasing cost of living**

#### **Strengthening the monitoring and enforcement of price control regulations**

Efforts will continuously be taken to strengthen the monitoring and enforcement of price control regulations to curtail unreasonable price increases, especially for basic necessities. Consumers will play a greater role by reporting unethical pricing practices and stockpiling by retailers through the Skwad Pengguna, consumer associations and the eAduan system. Price monitoring will ensure stable and adequate supply of goods and services and curb excessive market speculation, thus improving market efficiency and purchasing power. The 1Harga 1Malaysia programme will be continued to standardise the prices of subsidised goods between Sabah, Sarawak, and Peninsular Malaysia. The coverage of Kedai Rakyat 1Malaysia (KR1M) and Coop1Malaysia stores will also be expanded throughout the nation to ensure widespread access to reasonably priced goods thus reducing the burden of increasing cost of living.

### **Increasing the provision of affordable housing**

The Government will continue to ensure that affordable homes are available to B40 households. Special interest rate loans, with a 10-year moratorium on sale of the property, will be provided to B40 households to enable them to own houses. Affordable housing schemes by Perbadanan PR1MA Malaysia and Syarikat Perumahan Negara Berhad will be continued. Housing rental assistance will also be made available to eligible households. In addition, state governments will be encouraged to set an adequate quota for affordable housing.

Policies regarding housing for the B40 households will also emphasise quality and maintenance. Existing low-cost flats and houses will be refurbished as part of a holistic campaign to improve the living conditions of the community. For poor households in rural areas, especially Orang Asli in Peninsular Malaysia and those living in Sabah and Sarawak, the Government will continue to provide housing with basic amenities through the construction of integrated settlements under Program Bantuan Rumah (PBR). The Program Perumahan Rakyat (PPR) will be continued for poor households in urban areas.

### **Increasing access to healthcare services**

The Government will encourage the participation of private healthcare service providers and non-governmental organisations (NGOs) in the provision of specific healthcare facilities such as dialysis, rehabilitation and medical testing lab centres in urban areas. Such facilities will complement existing healthcare services provided by the Government.

In rural areas, more community clinics will be built to increase access to basic healthcare services. Frequency of visits by medical specialists in non-specialist district hospitals, mobile clinics, and flying doctors will also be increased while local health volunteer programmes will be strengthened. Other health programmes such as food baskets, community feeding, and immunisation programmes will be continued. In addition, awareness and education programmes on family health such as nutrition, family planning, and healthy living will be intensified.

### **Introducing an integrated and comprehensive social safety net**

Existing SSN programmes will be transformed to be more integrated and comprehensive with a clear exit policy. This will include the implementation of a systematic monitoring and evaluation mechanism which provides for greater accountability. A single standardised targeting mechanism will be developed to identify eligible beneficiaries based on the enhanced eKasih database. This will minimise inclusion and exclusion errors allowing the target group to fully benefit from assistance provided.

Unconditional social welfare programmes will be reviewed to include clear productivity linked targets and exit policy. This will ensure assistance is given to the right target groups, reduce dependency on the Government and optimise utilisation of resources.

### **Enhancing financial and debt management programmes**

The level of financial literacy and financial management capability will be enhanced throughout the life stages to foster prudent financial management from an early age as well as to prevent high indebtedness among B40 households. In this respect, financial education and debt advisory services will be intensified to assist households to improve their financial management, and responsible practices, including proper use of consumer credit and debt restructuring.

Financing behaviour and practices among borrowers and lenders will be further strengthened. In this regard, integrated and enhanced legislation will be put in place to manage consumer credit activities for both banks and non-bank lenders. In addition, the collection, management and sharing of data relating to household indebtedness across national authorities and Government agencies will be enhanced to promote effective analysis and development.

## Box 3-1

**M40 households**

Middle 40% households income group (M40 households) refers to households that are between 41% to 80% of household income distribution. In 2014, the M40 households' income ranged between RM3,855 and RM8,135, where the mean and median income was RM5,662 and RM5,465 respectively. Currently there are 2.67 million M40 households, of which 83% reside in urban areas while 17% are in rural areas. 85.9% of the M40 households live in Peninsular Malaysia.

Initiatives to raise income levels of the aspirational segment of B40 households are aimed at shifting them to the middle-class society. In addition, the M40 households also face challenges in increasing their earning capacity to cope with the higher cost of living, and home ownership, including being able to live within a reasonable proximity to their place of work. Initiatives that will be undertaken to support M40 households include enhancing their education attainment, upgrading skills acquisition, and strengthening the business ecosystem to provide the support and environment for M40 household entrepreneurs to thrive.

**Strategy A3****Enhancing the delivery system of B40 household programmes****Streamlining support to B40 households**

A mechanism will be established to streamline, rationalise, and coordinate various efforts by agencies to elevate B40 households towards a middle-class society. To ensure programmes and projects are in line with national policies and strategies, a bottom-up approach will be adopted to encourage participation and commitment of all stakeholders, from problem identification to monitoring and evaluation of programmes. Focus group committees at district levels will be empowered to ensure development programmes meet their needs.

**Complementing the Poverty Line Income (PLI) measurement with the Multidimensional Poverty Index (MPI)**

The MPI, a relative poverty measurement approach practised in developed nations, will be adopted to complement the absolute income-based measurement of the PLI. The MPI measures access to basic infrastructure and services that facilitate social mobility and enables intensity-based analysis, thus providing clear identification of the needs of the lower income households.

## Box 3-2

**Multidimensional Poverty Index**

In Malaysia, poverty has traditionally been measured on one dimension, namely income, using the PLI. Households that do not meet a specific income requirement are considered poor. In 2010, the United Nations Development Programme (UNDP) introduced the MPI in its Human Development Report.

In line with this practice, Malaysia has also developed a national measurement of MPI that is appropriate to the socio-economic wellbeing and development framework of the nation. The use of the MPI will ensure that policy deliberations will shift beyond poverty, to include vulnerability as well. The MPI will complement the PLI to measure and monitor poverty from multidimensional perspectives.

The MPI reflects both the incidence of multidimensional deprivation (the number of people who suffer deprivations in multiple aspects of life at the same time within a given population), and its intensity (how many deprivations they experience at the same time). The model comprises of four dimensions with 11 indicators. Households deprived in at least one third of the weighted indicators are considered vulnerable to or at risk of becoming multidimensionally poor.

**Dimensions, indicators, cut-offs and weights for MPI**

Dimension	Indicator	Deprivation cut-off	Weight
Education	Years of schooling	All household members aged 17-60 have less than eleven years of education	1/8
	School attendance	Any school-aged children (aged 6-16) not schooling	1/8
Health	Access to health facility	Distance to health facility is more than 5 kilometres away and no mobile health facility is provided	1/8
	Access to clean water supply	Other than treated pipe water inside house and public water pipe/stand pipe	1/8
Living Standards	Conditions of living quarters	Dilapidated or deteriorating	1/24
	Number of bedrooms	More than 2 members/room	1/24
	Toilet facility	Other than flush toilet	1/24
	Garbage collection facility	No facility	1/24
	Transportation	All members in the household do not use private or public transport to commute	1/24
	Access to basic communication tools	Does not have consistent fixed line phone or mobile phone	1/24
Income	Mean monthly household income	Mean monthly household income less than PLI	1/4



## Focus area B

# Empowering communities for a productive and prosperous society

During the Eleventh Plan, efforts will focus on empowering the community to enhance inclusiveness by addressing the needs of the community, including family, youth, women, children, the elderly and PWD. Six strategies will be implemented to achieve these priority targets:

- **Strategy B1: Strengthening the family institution** by enhancing parenting skills and family values, as well as improving counselling services and the family support system;
- **Strategy B2: Nurturing the potential of youth** by building dynamic leadership and multiple capabilities, developing youth entrepreneurs and inculcating the spirit of volunteerism among youth;
- **Strategy B3: Enhancing the role of women in development** by creating a more conducive working environment and increasing the number of women in decision-making positions;
- **Strategy B4: Upholding the needs and interests of children** by improving protection against abuse, abandonment and neglect, as well as increasing educational outcomes for underprivileged children;
- **Strategy B5: Enhancing the living environment for the elderly** by improving the supportive environment for the elderly and promoting active ageing; and
- **Strategy B6: Empowering persons with disabilities** by creating a friendly physical environment for PWD as well as expanding training and skills development to increase employability.

## Strategy B1

### Strengthening the family institution

The family institution remains a critical part of Malaysia's social fabric. In recent years, families across the nation are under increasing pressure with the rise of urbanisation, long working hours, cost of living and the impact of social media on communication and relationships. Strengthening families as the core of communities is a priority for this Eleventh Plan, with initiatives aimed at helping families to cope in a rapidly changing environment. Under this strategy, the Family Wellbeing Index score is expected to improve to 8 out of 10 by 2020.

#### Enhancing parenting skills and family values

Pre-marriage and marriage enrichment programmes will be promoted across all communities, to inculcate family values, parenting skills and effective communication to strengthen the marriage institution and family resilience. NGOs, community-based organisations (CBOs) and private organisations will be encouraged to conduct these programmes. In addition, prudent financial management and healthy lifestyle will be promoted among young married couples. Social and mass media will be utilised to promote family education and knowledge enrichment programmes.

### **Improving counselling services and family support system**

Counselling services to family members in need, particularly those experiencing shock, emotional stress and financial difficulties will be strengthened by engaging experts and relevant NGOs. The existing family support system and facilities will also be improved through collaboration between the Government, community, NGOs and the private sector. Integrated community centres will be established to house *taska*, respite care for the elderly, and transit centre for children and students, as well as other facilities such as rehabilitation centres, kafe@TEEN and Klinik Nur Sejahtera.

## **Strategy B2**

### **Nurturing the potential of youth**

By 2020, youth aged 15-40 will make up 44.7% of our total population. Youth play an important role in nation building. They are not only the leaders of tomorrow, but also the partners of today. They are actors of change who will define the future identity of Malaysia for the nation to move forward. Therefore, it is crucial to provide them with an enabling environment and opportunities to play their role in national development.

### **Promoting dynamic leadership and developing multiple capabilities among youth**

Youth development programmes will foster dynamic leadership and develop multiple capabilities among youth through education and training, entrepreneurship, sports and volunteerism. Positive values including spiritual, patriotism, responsibility, care, resilience and positive mindsets will be inculcated to mould the potential young generation to become credible future leaders. More structured programmes will also be implemented to enhance social integration and promote unity among youth.

### **Developing dynamic and effective entrepreneurs among youth**

Integrated entrepreneurship development programmes including financial and investment literacy will be made more accessible to youth to create a larger pool of successful young entrepreneurs including

in sports-related industries. Various agencies such as Akademi Pembangunan Belia Malaysia, Institut Kemahiran Negara (INSKEN), MARA, Women Innovation Academy (MyWIN) and TEKUN Nasional will support these initiatives. Towards this end, the related agencies will formulate a strategic plan to develop dynamic and effective entrepreneurs among youth in a more integrated manner.

### **Inculcating the spirit of volunteerism among youth**

Youth from universities will be encouraged to participate in “Back to Community” voluntary programmes implemented in partnership with NGOs, universities, and companies. Programmes by 1M4U and RELA Youth Squad will be expanded to enable more youth from universities to participate and contribute more effectively.

## **Strategy B3**

### **Enhancing the role of women in development**

Women make up 48.7% of our total population, and today, form 61% of total graduate enrolment in Malaysia. They are an important part of addressing the talent gap in Malaysia, to achieve our socio-economic development objectives. A number of measures will be taken to harness women talent at all levels, and create more opportunities for women to participate in the economy, and increase the female labour participation rate to 59%, by 2020.

### **Creating a more conducive working environment**

Providing a more conducive working environment will help to promote gender diversity and increase female participation in the labour force with measures such as promoting work-life balance, flexible working arrangements and work from home concept in both the public and private sectors. In addition, accessibility to quality early childcare and childhood education (ECCE) for childcare services will be expanded.

### **Increasing the number of women in decision-making positions**

Efforts will be intensified to increase the number of women in decision-making positions. In line with this, women will be given greater opportunities to acquire the necessary knowledge and experience including in areas of entrepreneurship. “Back to work” programmes to encourage qualified women who have been out of the workforce due to family or other commitments, will also be expanded through collaboration with the private sectors. Initiatives led by TalentCorp will be continued to increase the number of talented women returning to the workforce. In addition, the collection of gender disaggregated data by various ministries and agencies will be improved to support planning, monitoring and evaluation of programmes.

## **Strategy B4**

### **Upholding the needs and interests of children**

Malaysia remains a young nation, with children aged below 18 expected to make up 29.9% of our total population by 2020. Efforts to protect the needs and interests of children will be enhanced to address issues of abuse and neglect. In addition, a range of initiatives to increase education opportunities especially for disadvantaged and disabled children, will be implemented.

#### **Improving protection against abuse, abandonment and neglect**

The number of Childcare and Child Protection Units will be increased to improve the protection of children against abuse, abandonment and neglect. Advocacy efforts will be intensified through social media. The Child Act, 2001, will also be reviewed to safeguard the needs and protection of children. Preventive and rehabilitative programmes for children in need will be strengthened by increasing the participation of family and community.

### **Increasing access to quality childcare and improving educational outcomes for disadvantaged children**

Efforts will be undertaken to improve access to quality education for children to realise their potential. Communities will be encouraged to set up childcare centres to provide facilities for learning and recreational activities to prevent children from getting involved in undesirable social activities. Child minders in ECCE will be trained in collaboration with NGOs and relevant universities to enhance the quality of service and outcomes for the children under their care. More childcare centres for children with special needs, such as Down’s Syndrome and learning, hearing or physical disabilities, will be established in partnership with NGOs and the private sector. Children aged 13 to 18 in welfare institutions will be provided with opportunities to pursue technical and vocational education and training.

## **Strategy B5**

### **Enhancing the living environment for the elderly**

The proportion of the population aged above 60 years is increasing, from 7.9% in 2010 to 8.8% in 2014. This figure is expected to grow to 10.6% by 2020. Better quality of life and advances in healthcare has resulted in longer lifespans in 2013, 72.6 years for men and 77.2 years for women in Malaysia. Many of our senior citizens are thus in a position to continue contributing to society even in their golden years. During the Plan, concerted efforts will be undertaken to enhance the quality of life of the elderly.

#### **Improving supportive environment for the elderly**

Initiatives to improve the support environment for the elderly include providing elderly-friendly infrastructure and improving care services. More day care centres for the elderly will be established in collaboration with NGOs to enable them to live with family members who are working. In addition, elderly care centres and Home Help services will also be expanded. Awareness programmes on elderly care will be strengthened to shift the elderly community to action in adopting active and healthy lifestyles.

Social protection for the elderly poor will be streamlined and integrated to ensure better quality of life. The provision of assistance will be continued based on basic needs. The low-income group, particularly in the informal sector, will be encouraged to participate in voluntary savings and retirement schemes to ensure economic protection in their old age.

### **Promoting active ageing**

The capacity of the Institute of Gerontology, Universiti Putra Malaysia will be enhanced to conduct more research to support active ageing. The University of the Third Age (U3A) Programme will be expanded to provide opportunities for the elderly to continuously learn and acquire knowledge and skills in collaboration with universities, community colleges and Pusat Aktiviti Warga Emas. In addition, NGOs will also be encouraged to implement self-help based learning programmes.

A national campaign to promote social awareness on volunteerism among retired professionals will be launched to encourage the elderly to participate in community-based activities. This will allow them to remain active by contributing their knowledge, skills and experience to benefit the community. CBOs and NGOs will be encouraged to attract more retired professionals to participate in voluntary community development programmes.

## **Strategy B6**

### **Empowering persons with disabilities**

Despite continuous improvement in providing services and support to empower PWD, there is still room to create a more conducive environment for the PWD. The focus of the Eleventh Plan will continue to provide a more conducive and PWD-friendly environment for active, productive and independent living.

#### **Creating a friendly physical environment for PWD**

Barrier-free access to public places is an important element of independent living. To this end, the enforcement of the Uniform Building By-Laws for Universal Access 1984 will be strengthened to ensure compliance to universal design and creating a disabled-friendly physical environment. Existing Government buildings will also be upgraded in compliance with the By-Laws.

To further encourage independent living of PWD, community-based Independent Living Centres will be established with the participation of NGOs. These centres will be managed by the PWD.

#### **Expanding training and skills development to increase employability**

During the Plan, more programmes will be implemented to empower productive PWD. More accessibility to basic education and skills training will be provided, including entrepreneurship, to build relevant skills among PWD such that they are employable by the private sector and the government, in line with the target to employ at least 1% PWD among civil servants. SMOKU will be improved to support planning, monitoring and evaluation of existing programmes. In addition, the Pusat Latihan Perindustrian dan Pemulihan will be upgraded as the centre of excellence (CoE) for disability training and research.



## Focus area C

# Transforming rural areas to uplift wellbeing of rural communities

26.3% of Malaysians or 7.92 million people live in rural areas across the nation, with varying levels of accessibility to peri-urban areas, infrastructure, social amenities and economic opportunities. Uplifting the wellbeing of rural communities continues to be a priority in the Eleventh Plan, in line with the objective of ensuring balanced growth across geographies. Five strategies will be delivered to achieve these outcomes during the Eleventh Plan:

- **Strategy C1: Extending provision of rural basic infrastructure** by streamlining rural infrastructure planning and increasing the provision of road, water and electricity supply;
- **Strategy C2: Encouraging more private investment in rural areas** by providing a more conducive business environment;
- **Strategy C3: Improving rural-urban linkages** by improving connectivity and mobility as well as using ICT to strengthen the role of UTCs, RTCs and mini-RTCs;
- **Strategy C4: Expanding access to basic services** by expanding the mobile community transformation centre programme, and extending banking services to rural areas; and
- **Strategy C5: Streamlining the delivery system** by reviewing the role of Regional Development Authorities (RDAs) and establishing Sistem Profil Kampung Peringkat Nasional.

## Strategy C1

### Extending provision of rural basic infrastructure

#### Streamlining rural basic infrastructure planning

An integrated rural basic infrastructure database will be developed to facilitate stock-taking and planning of rural basic infrastructure as well as to ensure effective delivery of priority infrastructure to meet the communities' needs.

#### Increasing the provision of road, water and electricity supply

New roads will be constructed and existing roads including ex-logging roads will be upgraded to improve connectivity, particularly in Sabah and Sarawak as well as Orang Asli settlements in Peninsular Malaysia. Priority will be given to the construction of roads connecting villages as well as linking villages with the nearest towns. During the Eleventh Plan, 3,000 kilometres of paved roads will be constructed.

The Rural Water Supply programme, to supply clean and treated water directly to each household, will be expanded and this will involve connecting households to the meter stands of the reticulation systems. In addition, alternative systems such as gravity feed, tube wells and rain water harvesting will be used in remote and isolated areas. 99% coverage of access of clean and treated water will be provided to rural houses reaching 90,000 additional houses.

The Rural Electricity Supply programme will continue to focus on off-grid generation for remote and isolated areas. The alternative system of solar hybrid and mini hydro will be supported by micro- and pico-grid to increase coverage. The local community will be trained and encouraged to collaborate in the maintenance of these facilities to

ensure sustainability of the rural alternative electrification system. 99% coverage of access of electricity will be provided to rural houses reaching 36,800 additional houses.

## Strategy C2

### Encouraging more private investment in rural areas

Efforts will be implemented in collaboration with regional economic corridor authorities to provide a more conducive business environment to attract higher value added investment to rural areas. Collaboration among relevant ministries and agencies will be strengthened to provide appropriate infrastructure, logistics and support services to facilitate private sector investment. The role of RTCs as a one-stop business facilitation centre will be enhanced to increase the ease of doing business, including providing information on potential areas for investment.

## Strategy C3

### Improving rural-urban linkages

The linkage between rural and urban areas will be strengthened by improving connectivity and mobility to foster greater economic integration. The transportation system will be integrated to provide better connectivity and more cost-effective routes for buses will be identified to increase mobility. This will enable rural enterprises to market their goods and services to the urban centres and peripheries. The role of UTCs, RTCs and mini-RTCs as conduits of rural-urban linkages will be strengthened by leveraging ICT. Measures will also be undertaken to encourage rural dwellers to use these centres to provide supporting services, particularly for those in the ecotourism industry.

## Strategy C4

### Expanding access to basic services

#### Expanding the Mobile Community Transformation Centre programme

The Mobile CTC programme which brings basic government services

to rural communities, especially in remote areas, will be expanded with the participation of more government and private agencies. Programmes will be customised in each location to meet the specific requirements of local residents.

## Extending banking services to rural areas

Implementation of the rural banking services programme will be expanded to increase accessibility to financial services for the rural community. 4,348 BSN service agents will be appointed to increase coverage of financial services in rural areas. Banks will be encouraged to provide automated teller machines and cash deposit machines at strategic places in rural areas.

## Strategy C5

### Streamlining the delivery system

#### Reviewing the role of regional development authorities

The role of RDAs will be reviewed to drive socio-economic development of their respective areas. The RDAs will collaborate with the regional economic corridor authorities to provide sufficient infrastructure and social amenities as well as attract private investments to generate economic activities and create jobs for the local community. RDAs will also support relevant agencies in implementing socio-economic development programmes and projects. The capacity of RDAs will be strengthened to implement revenue generating projects to encourage self-financing.

#### Establishing Sistem Profil Kampung Peringkat Nasional

A comprehensive and integrated database system, Sistem Profil Kampung Peringkat Nasional (SPKPN) will be established to provide comprehensive profile of villages which have Jawatankuasa Kemajuan dan Keselamatan Kampung (JKKK). The database will include information on demographics, socio-economic status and infrastructure to be used as the national reference for effective planning of rural development programmes and projects. It is expected that profiles of 17,900 villages nationwide will be completed by 2020.



## Focus area D

# Accelerating regional growth for better geographic balance

Since the establishment of the first regional economic corridor in 2006, many success stories have emerged, including economic opportunities for locals. Regional economic corridors will continue to spur economic growth to address inter- and intra-regional imbalances and increase inclusivity. Efforts will be undertaken to accelerate investment, provide infrastructure and review corridor development plans.

Two strategies have been identified:

- **Strategy D1: Strategic review of regional economic corridor master plans** by revisiting regional economic corridor priorities and industry focus; and
- **Strategy D2: Accelerating investment in regional economic corridors** by enhancing facilitation for investors, improving connectivity and mobility as well as intensifying research, development and commercialisation.

### Strategy D1

## Strategic review of regional economic corridor master plans

### Revisiting regional economic corridor priorities and industry-focus

Given the changing domestic and global economic landscape, regional economic corridor authorities will need to ensure that the direction, strategies and initiatives are in line with national socio-economic development goals as well as responsive to international challenges. Regional economic corridors will continue to develop economic clusters based on sectoral and geographic advantages to benefit from economies of scale and enhance the quality of life of local communities. Efforts will be undertaken to accelerate investment, improve infrastructure and review of regional economic corridor master plans in order to realise investment of RM236 billion and create 470,000 jobs by 2020.

The regional economic corridors will continue to play an important role in Malaysia's growth and development. A number of long term, high impact programmes and projects are currently underway, and will continue to be implemented in the coming years. Priority sectors include the creative cluster in Iskandar Malaysia; automotive and aeronautics industries in NCER; petrochemical industries in the existing industrial parks in ECER; tourism and palm oil downstream processing in SDC; as well as energy-intensive industries including aluminium, steel and glass in SCORE.

A number of initiatives to promote inclusiveness will also be implemented across the regional economic corridors, mainly focused on income-generating activities and skills training for local communities. For example, the Iskandar Malaysia Creative Industry Talent Development Programme will be enhanced to train more locals, while entrepreneurship and skills development programmes will broaden the ability of locals to participate in and benefit from economic development in ECER. In NCER, programmes such as the Agriculture Vocational School Enterprise Training Programme will be expanded. High impact programmes in creative content development will be developed for youth in SDC with a target of 850 enrolments. Within SCORE, programmes will be developed to support tourism development and increase agriculture productivity.

In addition, the Border Economic Transformation Programme (BETP) will enhance outcomes from regional economic development by bringing inclusive development and prosperity to the border regions of Malaysia. The BETP will start with the Malaysia-Thailand border which encompasses both ECER and NCER, with the aim of attracting investment, creating jobs and increasing incomes for the local communities in and around border areas. A range of large-scale economic growth projects and local income-generating opportunities will be developed including the development of Lembah Chuping and Perlis Inland Port in Perlis, rubber-based downstream processing in Rubber City in Kedah, the construction of Plaza IMT-GT, a retail plaza, in Bukit Bunga as well as the redevelopment of Kampung Laut in Tumpat, Kelantan.

## Strategy D2

### Accelerating investment in regional economic corridors

#### Enhancing facilitation for investors

Investment acceleration is critical to spur development in the regional economic corridors. On average, only 56.8% of committed investment has been realised. While there are many factors that influence investment realisation, more can be done to strengthen the investment delivery mechanism, especially around investor facilitation, mobility and commercialisation of research. Regional economic corridor authorities will facilitate investors in obtaining approvals across multiple agencies, solving land issues and related matters to ensure committed investments are realised. Expansion of this investor facilitation model will also ensure that authorities continue to facilitate investors once their businesses are in operation, to address implementation challenges and encourage reinvestment in the future.

#### Improving connectivity and mobility

Transportation networks will be improved to enhance connectivity and mobility in regional economic corridors. This includes the construction and upgrading of roads and highways such as the Pan Borneo Highway to link SCORE and SDC; Central Spine Road and Kota Bharu-Kuala Krai Highway to increase connectivity in ECER. The completion of Mukah Airport is expected to accelerate development in Mukah and the surrounding areas within SCORE, with Mukah to be developed as a smart city as well as one of the growth nodes in SCORE.

#### Intensifying research, development and commercialisation

Collaboration between government, industry and academia will be strengthened to intensify research, development and commercialisation (R&D&C) activities in economic clusters to ensure industrial sustainability. The collaboration concept adopted by the Collaborative Research in Engineering, Science and Technology (CREST) Centre will be extended to other economic clusters and regional economic corridors.



## Focus area E

# Enhancing Bumiputera Economic Community (BEC) opportunities to increase wealth ownership

In order to address the issues and challenges faced by Bumiputera, more creative and innovative efforts will be undertaken. For this purpose, five main strategies to be implemented are as follows:

- **Strategy E1: Empowering Bumiputera human capital** by expanding high-skills training and certified professionals programmes;
- **Strategy E2: Increasing Bumiputera effective control and sustainable corporate ownership** by broadening investment strategy to improve equity ownership, increasing GLCs and GLICs divestment of non-core assets and activities to Bumiputera entrepreneurs, as well as introducing new funding mechanisms for financial assets;
- **Strategy E3: Enlarging the share of Bumiputera wealth ownership** by strengthening institutional-based programmes for assets ownership and introducing new funding mechanisms for non-financial assets;
- **Strategy E4: Empowering Bumiputera Economic Community** by reducing financing to low-value added and non-strategic industries, intensifying entrepreneur financing programmes, enhancing development-oriented and integrated programmes for Bumiputera enterprises, enhancing mindset change programmes, institutionalising community- and social-based enterprises, providing incentives to encourage private sector and industry participation, as well as establishing platform for business collaboration and marketing opportunities; and

- **Strategy E5: Strengthening delivery effectiveness of Bumiputera-oriented programmes** by setting up an integrated database comprising Bumiputera socio-economic status, simplifying Government procedures to reduce the cost of doing business and ensuring collaboration across all relevant agencies and the private sector to deliver programmes effectively.

## Strategy E1

### Empowering Bumiputera human capital

#### Expanding high-skills training and certified professional programmes

Successful employment insertion programmes such as the Program Pengeraju Skil under YPPB will be expanded to improve skills of the Bumiputera. By 2020, participation of Bumiputera in skilled occupation categories is targeted to reach at least 60%. Industry players in high impact sectors will play a prominent role through collaboration with training institutions in tailoring their modules to industry needs. This will result in more employable graduates who will have access to better job opportunities. Appropriate incentives will be offered to industry players to encourage stronger collaboration with the relevant skills training institutions. Program Pengeraju Profesional conducted by YPPB and other similar programmes will be expanded to increase the number of certified professionals among Bumiputera such as accountants, financial analysts and engineers.

## Strategy E2

### Increasing Bumiputera effective control and sustainable corporate ownership

#### Broadening investment strategy to improve equity ownership

Corporate equity enhancement programmes will be continued to increase Bumiputera equity ownership with effective control such as private equity investments by EKUINAS, SJJB and Program Pembangunan Usahawan Korporat (The Baron). In addition, PNB will further diversify the Amanah Saham Bumiputera (ASB) portfolio of investment into property to maximise returns to unit holders. Other Bumiputera agencies and institutions will also be focusing on the acquisition of high potential companies and profitable PLCs. By the end of the Eleventh Plan, Bumiputera corporate equity ownership with effective control is expected to increase to at least 30%.

#### Increasing GLCs and GLICs divestment of non-core assets and activities to Bumiputera entrepreneurs

Divestment of profitable non-core GLCs and GLICs assets and activities to genuine Bumiputera entrepreneurs will continue to be implemented to increase Bumiputera effective direct individual ownership. Targeted coaching and guidance will be provided until Bumiputera enterprises are able to independently operate these businesses. Financial institutions will facilitate the Bumiputera enterprises in terms of liquidity in the process of taking over businesses from the GLCs and GLICs. An appropriate divestment arrangement will be developed and monitored by TERAJU to ensure the success of this initiative.

#### Introducing new funding mechanisms for financial assets

Bumiputera individual equity ownership will be expanded by allowing withdrawal from Account 1 of the Employee Provident Fund to purchase ASB2 units, which provide competitive long-term returns at minimal risk. New funding mechanisms, such as waqf investment fund and private equity for investment will be created through crowd funding to invest in profitable and high potential companies.

## Strategy E3

### Enlarging the share of Bumiputera wealth ownership

#### Strengthening institutional-based programmes for assets ownership

Institutional-based programmes including Bumiputera REIT will continue to be strengthened to enhance Bumiputera ownership of large commercial and residential properties in strategic locations. Yayasan Wakaf Malaysia, state Islamic religious councils, and other Bumiputera-based institutions will collaborate to develop Malay reserve and waqf land to unlock value while retaining Bumiputera ownership.

A mechanism to enable Bumiputera institutions to purchase unsold Bumiputera lots in new property developments will be introduced. These institutions will own the property and receive rental income until the property is acquired by interested Bumiputera. In addition, EDOs such as MARA, TEKUN Nasional and Perbadanan Usahawan Nasional Berhad (PUNB) will continue to acquire strategic business spaces or shop lots to be rented to Bumiputera entrepreneurs.

### **Introducing new funding mechanisms for non-financial assets**

In order to assist Bumiputera to own residential properties, more affordable houses will be developed by utilising funds including a clawback funding mechanism. The clawback funding mechanism collects contributions from property developers when they are unable to comply with the Bumiputera quota policy in their property development. The contribution is equivalent to the total cost of discount from the units forgone to non-Bumiputera. By the end of the Eleventh Plan, it is expected that at least 90% of Bumiputera households will own a residential unit. In addition, Bumiputera Commercial Property Revolving Fund will be established to assist entrepreneurs to acquire commercial properties. This initiative will enable Bumiputera entrepreneurs to shift from renting to owning properties. PHB will be appointed as the lead agency, supported by EDOs to co-purchase commercial properties. These properties will be leased to entrepreneurs who will own them at the end of the lease period.

## **Strategy E4 Empowering Bumiputera Economic Community**

### **Reducing financing to low-value added and non-strategic industries**

AIM and TEKUN Nasional will continue to provide financing to micro businesses. However, these institutions will be discouraged from providing financing to low-value added industries. PUNB, SME Corp and MARA will assist SMEs in high value added industries with the potential to grow and move to the next stage of the business cycle where Bumiputera participation is still low.

### **Intensifying entrepreneur financing programmes**

Entrepreneur financing programmes will be intensified to support the implementation of an effective and integrated entrepreneur development programme. The focus will be on industries with large Bumiputera participation including automotive, construction, aerospace and defence, business services, education, healthcare, as well as oil and gas. A second chance policy will also be introduced to assist potential Bumiputera entrepreneurs to resume their business activities. In addition, the waqf fund, as well as Islamic banking and financing will be utilised to create more Bumiputera entrepreneurs in strategic subsectors, particularly in the halal industry.

### **Enhancing development-oriented and integrated programmes for Bumiputera enterprises**

Government procurement and contracts will be restructured to minimise rent-seeking and spurious-front activities. It will include the introduction of an appropriate graduation and exit policy to reduce continuous dependence on the Government. In addition, smart partnerships will be developed between R&D centres and Bumiputera SMEs to ensure creation of innovative products and services. A soft loan for R&D will be provided to enable Bumiputera SMEs to comply with international standards and certifications. Other high impact programmes such as the Vendor Development Programme and Groom Big will be continued. The carve-out policy on contracts worth RM500 million and above will continue to be implemented. In addition, outsourced work will continue to be given to Bumiputera entrepreneurs.

The Bumiputera Business Chambers will be streamlined and rebranded towards creation of a genuine entity that will champion the supply chain “farm-to-table” network of Bumiputera entrepreneurs. A pool of high potential Bumiputera entrepreneurs among industry champions will be identified to form consortiums along the supply chain network, thus providing a supportive business ecosystem. Special provisions including funding and easier access to market will strengthen these consortiums. As a result, Bumiputera consortiums will become more competitive, thus addressing current challenges in competing within the ecosystem. The ecosystem will create a competitive environment for Bumiputera in the market, thus addressing challenges in competing within the ecosystem.

### **Enhancing mindset change programmes**

In order to develop more independent Bumiputera entrepreneurs, appropriate measures will be introduced to bring about a mindset change to reduce dependency on Government assistance as well as eliminate rent-seeking and spurious-front activities. These measures are also designed to boost the confidence level of Bumiputera entrepreneurs to become more resilient and competitive in the local and global market.

### **Institutionalising community- and social-based enterprises**

This initiative will involve the merging of small Bumiputera enterprises as well as the amalgamation of agriculture smallholdings to benefit from economies of scale. The Government will provide appropriate infrastructure and facilities, as well as leadership and management training to build the capacity and capability of these community- and social-based enterprises, which will be set up based on cooperative models. The enterprises will be encouraged to develop partnerships with established companies to expand their activities.

### **Providing incentives to encourage private sector and industry participation**

Financial and non-financial incentives will be continued to encourage private sector and industry to contribute to Bumiputera entrepreneurship development. This initiative will enable Bumiputera entrepreneurs to penetrate the market and create new business opportunities.

### **Establishing platforms for business collaboration and marketing opportunities**

A Bridging Programme will be introduced to pool credible Bumiputera entrepreneurs to elevate them to the next level. The Bumiputera entrepreneurial development agencies will strengthen collaboration among them to develop successful and competitive entrepreneurs. In addition, a Business Development Voucher Programme will be introduced to provide matching grants to assist entrepreneurs to modernise their facilities, explore new markets and improve their business processes. An International Distribution Centre will also be established and managed by the private sector or a cooperative movement to gain access to foreign markets to ensure business viability.

## **Strategy E5**

### **Strengthening delivery effectiveness of Bumiputera-oriented programmes**

#### **Enhancing Bumiputera development agenda through realistic and practical Key Performance Indicators (KPIs)**

A comprehensive approach will be implemented through the creation of realistic and practical KPIs as well as an integrated database that comprises Bumiputera socio-economic status. The roles and functions of Bumiputera-based EDOs will be reviewed and Unit Pemerkasaan Ekonomi Bumiputera (UPEB) in each ministry and agency will be strengthened through appropriate redeployment of human capital and resource allocation. Government procedures will also be simplified to reduce the cost of doing business to enable Bumiputera entrepreneurs to be more competitive. Public agencies, GLCs and GLICs, Bumiputera non-governmental organisations as well as relevant business associations will collaborate in a symbiotic relationship to develop BEC.

# Conclusion

The Tenth Plan succeeded in increasing inclusivity nationwide, as seen in improved income distribution in both rural and urban areas. Access to rural infrastructure has improved, and various opportunities have been created for rural and other communities to partake in economic development opportunities. Nevertheless, more needs to be done, in particular to address the needs of selected segments of society who do not feel that they are benefiting from the nation's growth and development. In addition, vulnerable households, particularly within the B40 households and rural communities remain prone to socio-economic shocks. The strategies in the Eleventh Plan will increase inclusiveness in line with the aspiration of uplifting more B40 households into the middle-class society. Key segments within the community will continue to be engaged and supported, with outcome-based incentives to stimulate independence and results-orientation. Rural transformation will continue, with the objective of uplifting the wellbeing of rural communities to enable them to participate in and benefit from the nation's economic growth. The various strategies proposed will result in more equitable access to economic opportunities. Malaysians will enjoy improved income, reduced vulnerability and a better quality of life as well as continue contributing towards the nation's growth and development.



# Improving wellbeing for all

## Overview

### Highlights Tenth Malaysia Plan, 2011-2015: Achievements

### Looking back Tenth Malaysia Plan, 2011-2015: Progress

Improving access to quality healthcare services

Ensuring access to quality and affordable housing

Making streets and communities safer for *rakyat* peace of mind

Enhancing social cohesion and national unity

Promoting a sports culture and developing talent to enhance wellbeing

### Summary of focus areas Eleventh Malaysia Plan, 2016-2020

#### Moving forward Eleventh Malaysia Plan, 2016-2020

Focus area A: Achieving universal access to quality healthcare

Focus area B: Providing adequate and quality affordable housing to poor, low- and middle-income households

Focus area C: Creating safer living environments for thriving communities

Focus area D: Improving road safety and emergency services to reduce fatalities

Focus area E: Enculturating the spirit of 1Malaysia to foster social cohesion and national unity

Focus area F: Promoting sports for healthy living and unity

#### Conclusion



## Overview

The Government has always adopted a balanced development approach that gives equal emphasis to both economic growth and the wellbeing of the *rakyat*. While there is no standard definition of wellbeing, the term is generally associated with a standard of living and quality of life that encompasses economic, social, physical and psychological aspects, and is beneficial for society. In Malaysia, these aspects are manifested in quality healthcare, affordable housing, improved public security and safety, enhanced emergency services, greater social integration and unity, as well as widespread participation in sports. Improvements in wellbeing will also promote productivity and upward mobility of the *rakyat*.

**During the Tenth Malaysia Plan, 2011-2015**, the Government invested significant resources to enhance the wellbeing of the *rakyat*. Improvements in the healthcare sector led to an increase in life expectancy, a decrease in infant and maternal mortality rates, and improvements in access to healthcare services. Housing programmes improved affordability for both low- and middle-income households, and guidelines were developed to create more conducive living environments. Crime rates fell by more than 20% through measures such as omnipresence in hotspots and greater community participation in voluntary neighbourhood watch activities. Social interaction programmes involving government agencies, non-governmental organisations (NGOs) and communities increased significantly, creating shared experiences and values that fostered social cohesion and strengthened national unity. The involvement of Malaysians in sports activities increased from 32% in 2011 to 40.8% in 2014, highlighting in turn, a growing appreciation of the benefits of sports, from supporting healthy lifestyles to strengthening national unity.

**In the Eleventh Malaysia Plan, 2016-2020,** wellbeing remains a priority thrust for realising Vision 2020. Improvements in healthcare will focus on addressing underserved populations, improving health system delivery to enhance efficiency and effectiveness, and intensifying collaboration with the private sector and NGOs. Housing support will be maintained for the poor, low- and middle-income households, including youth and young married couples. Crime prevention efforts will focus on intensifying collaboration across public and private sector stakeholders, building the capabilities of law enforcement personnel, tightening regulations and strengthening enforcement. A new focus area on enhancing road safety and emergency services will also be introduced. Platforms for interaction between and among different social groups will be enhanced to foster social cohesion and national unity, while more programmes to inculcate ethics and moral values will be implemented at schools and institutions of higher education. Finally, emphasis will be placed on mass sports participation, developing high-performance athletes, and building youth leadership capabilities in sports and sports-related activities.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements

**25.4**  
points

Improvement in overall wellbeing based on the Malaysian Wellbeing Index between 2000 and 2012

**Overall improvement in the Malaysian Wellbeing Index**

**74.8**  
years

Estimated life expectancy in 2014; an increase from 74.1 years in 2010

**Improving access to quality healthcare services**

**6.5**  
deaths

Estimated infant mortality rate per 1,000 live births in 2014; a decrease from 6.7 deaths in 2010

**58,530**

Hospital beds<sup>1</sup> in 2014, an increase from 55,180 in 2010

**102,200**

Affordable houses completed for poor, low- and middle-income households

**Ensuring access to quality and affordable housing**

<sup>1</sup> Includes public and private hospitals, maternity and nursing homes, hospices and ambulatory care centres.

22.7%

Decline in the  
crime index  
between 2011  
and 2014

17.6%

Decline in street  
crime between  
2011 and 2014

53.2%

Increase in  
the number  
of registered  
Voluntary  
Patrolling  
Schemes (SRS),  
between 2011  
and 2014

NUCC

Established the  
National Unity  
Consultative  
Council (NUCC)  
in 2013

36

Number of  
Malaysian  
athletes in the  
top ten world  
ranking in 2014

**Making streets and communities safer for  
*rakyat* peace of mind**

**Enhancing  
social cohesion  
and national  
unity**

**Promoting a  
sports culture  
and developing  
talent to enhance  
wellbeing**

# Looking back

## Tenth Malaysia Plan, 2011-2015: Progress

The Tenth Malaysia Plan enhanced the wellbeing of the *rakyat* through a relentless focus on healthcare services, public security, affordable housing, social cohesion, and sports.

During the Tenth Malaysia Plan, the wellbeing of the *rakyat* was enhanced through a relentless focus on healthcare services, public security, affordable housing, social integration, and sports. As a result, the wellbeing of the *rakyat* has improved as evidenced by the Malaysian Wellbeing Report 2013. Overall wellbeing improved by 25.4 points between 2000 and 2012, as shown in Exhibit 4-1. The economic wellbeing sub-composite improved by 33.3 points while the social wellbeing sub-composite improved by 21.0 points. The economic dimension of the Wellbeing Index encompasses components such as transport and education, while the social

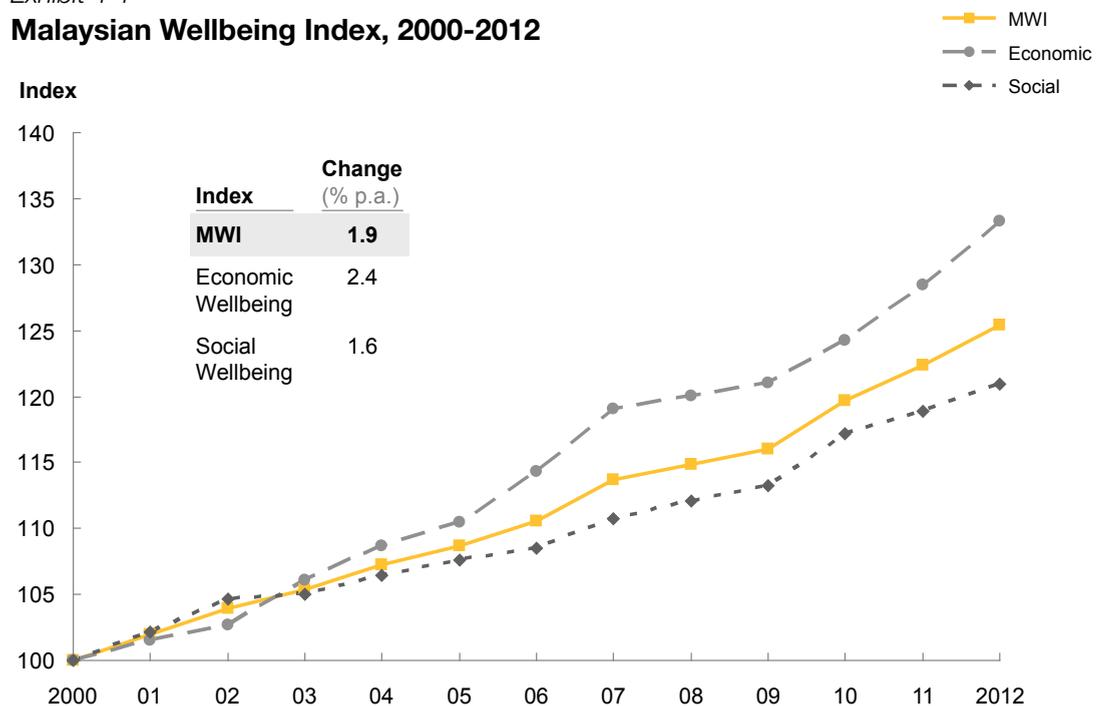
dimension encompasses components such as housing, public security, and social participation.

### Improving access to quality healthcare services

The Government improved access to quality healthcare services by upgrading healthcare infrastructure, enhancing the capacity of healthcare personnel, promoting healthy lifestyles, and extending nationwide preventive care programmes. The results of these efforts are manifested in an increase in life expectancy and a reduction in infant and maternal mortality, as shown in Exhibit 4-2.

Exhibit 4-1

#### Malaysian Wellbeing Index, 2000-2012



Notes: The MWI measures economic and social indicators. The former encompasses transport, communications, education, working life and income and distribution, while the latter includes housing, leisure, governance, public safety, social participation, culture, health, environment and family.

Source: Malaysian Wellbeing Report 2013

Exhibit 4-2

**Selected indicators for health status, 2010 and 2014**

Indicator	2010	2014
Life expectancy at birth (in years)	74.1	74.8
Infant mortality rate (for every 1,000 live births)	6.7	6.5
Maternal mortality ratio (for every 100,000 live births)	26.1	25.5

Note: 2014 numbers are estimated

Exhibit 4-3

**Ratio of health personnel to population, 2010 and 2014**

Type of Personnel	Number		Ratio to Population	
	2010	2014	2010	2014
Doctor	32,980	51,835	1:859	1:581
Dentist	3,810	5,888	1:7,437	1:5,112
Pharmacist	7,760	12,294	1:3,652	1:2,448
Nurse	69,110	92,681	1:410	1:325

Note: 2014 figures are preliminary

Accessibility to healthcare services was enhanced through the construction of new hospitals which included specialised medical institutions such as the National Cancer Institute in Putrajaya and the Cheras Rehabilitation Hospital. In addition, Klinik 1Malaysia and Klinik Bergerak 1Malaysia were enhanced to provide greater accessibility to affordable healthcare services for low-income households. As of 2014, 307 Klinik 1Malaysia were established in urban areas and 16 Klinik Bergerak 1Malaysia delivered services from boats and buses in rural areas.

The number of hospital beds for both public and private healthcare increased from 55,180 in 2010 to 58,530 in 2014. Of these, public hospital beds accounted for 75% of total hospital beds in 2014. The health personnel to population ratio also improved from 2010 to 2014, as shown in Exhibit 4-3.

To encourage healthy living among the community, the Government introduced Program Komuniti Sihat Perkasa Negara (KOSPEN), which promotes physical activities, as well as healthy diets and behaviours. In addition, health promotion programmes for communicable diseases were expanded, including the Communication for Behavioural Impact Programme (COMBI), which primarily aims to mitigate the risk of dengue.

**Ensuring access to quality and affordable housing**

To meet the affordable housing needs of low- and middle-income households, the Government provided financial assistance to home buyers, and enhanced regulatory framework to facilitate homeownership. Housing programmes for poor and low-income households in urban and rural areas were implemented through Program Bantuan Rumah (PBR), Program Perumahan Rakyat (PPR) and Rumah Mesra Rakyat 1Malaysia (RMR1M), as well as

housing for second-generation Federal Land Development Authority (FELDA) and Federal Land Consolidation and Rehabilitation Authority Berhad (FELCRA) settlers.

Affordable housing for middle-income households was also provided through programmes such as the Perumahan Rakyat 1Malaysia (PR1MA), 1Malaysia Civil Servants Housing (PPA1M) and Rumah Wilayah Persekutuan (RUMAWIP). Exhibit 4-4 shows the various housing programmes implemented for different target groups and their achievements.

To ensure all affordable houses were adequately maintained, the Government embarked on the Program Penyelenggaraan Perumahan for public low-cost housing and Tabung Perumahan 1Malaysia for private low- and medium-cost housing. In addition, the MyBeautiful Malaysia programme under the National Blue Ocean Strategy was implemented in 2014 to enhance the maintenance of Government quarters. Several guidelines such as the Green Neighbourhood Planning Guideline, Open Space and Recreation Guideline, and Physical Planning Guideline for Senior Citizens were formulated to ensure a more conducive and liveable environment. These initiatives helped improve the surrounding quality and living conditions of the *rakyat*.

Exhibit 4-4

#### Public affordable housing programmes developed during the Tenth Plan

Programmes	Monthly Household Income (RM)	Ministries/ Agencies	Number of Housing Units		
			Completed	Under Construction	Total
Program Bantuan Rumah (PBR)	Below Poverty Line Income <sup>1</sup>	Ministry of Rural and Regional Development	56,668	8,298	64,966
Program Perumahan Rakyat (PPR)	2,500 and below	Ministry of Urban Wellbeing, Housing and Local Government	12,025	27,087	39,112
Rumah Mesra Rakyat 1Malaysia (RMR1M)	750 to 3,000	Syarikat Perumahan Negara Berhad	32,948	2,803	35,751
Perumahan Rakyat 1Malaysia (PR1MA)	2,500 to 10,000	Perbadanan PR1MA Malaysia	560	18,400	18,960
1Malaysia Civil Servants Housing (PPA1M)	2,500 to 10,000	Prime Minister's Department	-	13,539	13,539
Rumah Wilayah Persekutuan (RUMAWIP)	6,000 and below	Ministry of Federal Territories	-	9,309	9,309

Notes: PR1MA, PPA1M and RUMAWIP commenced in year 2013; figures as of March 2015

<sup>1</sup> Poverty Line Income (PLI) is a measure of absolute poverty based on the minimum requirement of food and non-food items for household members to live healthily and actively in society. In 2014, the average monthly PLI was RM930 for Peninsular Malaysia, RM1,170 for Sabah, and RM990 for Sarawak.

The Housing Development (Control and Licensing) Act 1996 (Act 118) was amended to provide an avenue to charge errant developers, ensuring better protection for home buyers. In addition, new financing schemes were introduced such as the My First Home Scheme, Youth Housing Scheme, and Private Affordable Ownership Housing Scheme (MyHome) to provide financing facilities for the *rakyat* to own houses at affordable prices.

### **Making streets and communities safer for *rakyat* peace of mind**

To enhance the effectiveness of crime prevention measures, the Reducing Crime National Key Result Area (NKRA) was introduced to improve people's perception of safety, reduce the crime index and enhance Polis DiRaja Malaysia (PDRM) services. To achieve these aims, the Government undertook comprehensive efforts such as omnipresence in hotspots, special police operations, and greater community participation in voluntary neighbourhood watch activities.

Crime prevention efforts resulted in a decline in crime from 166,300 cases in 2011 to 128,540 cases in 2014 as reflected in the crime index. In terms of the order and security sub-index of the World Justice Project (WJP)<sup>1</sup>, Malaysia's position improved from the 16th position in 2012/2013 to the 12th position in 2014. Closed circuit television (CCTV) cameras together with other crime prevention measures successfully reduced 17.6% of street crime from 2011 to 2014.

The Safe City Programme, which uses crime prevention measures such as rail barricades and CCTV, was implemented in 151 local authorities covering 618 hotspots. An assessment undertaken in 2012 indicated that 80% of citizens in those areas felt safe, which significantly exceeded the target of 55%. Subsequently, the Black Spot Whitening Initiative introduced in 2013, focused on crime prone areas under the Safe City Programme. Spanning 76 local authorities, 61% of the population in these areas felt safe, exceeding the 55% target. This initiative also enhanced collaboration between communities and government agencies.

Community policing programmes were implemented to promote safer neighbourhoods through the Voluntary Patrolling Scheme (SRS). SRS, a community crime watch and night patrol effort under Rukun Tetangga (RT), aimed to reduce crime in residential areas. In 2014, 4,460 SRS were registered compared to 2,910 in 2011. These voluntary based community policing programmes not only reduced incidences of crime but also increased social integration.

The Police Volunteer Reserve (PVR) played a major role in supporting PDRM in law enforcement and maintaining peace and security. The number of PVR was increased from 9,075 in 2011 to 25,260 in 2014 which improved omnipresence. Successful joint patrols between SRS, Angkatan Tentera Malaysia (ATM), and PDRM under the Rondaan Awam Polis dan Anggota Tentera (RAPAT 1Malaysia) programme were carried out in 75 crime hotspots in 2013.

Drug addiction contributes to street and violent crime, thereby posing a serious threat to the wellbeing of the *rakyat*. Measures to combat this included eliminating organised crime and drug syndicates, as well as intercepting drug shipments at border and entry and exit points. In addition, treatment and aftercare handling for drug addicts were enhanced through self-development programmes, counselling, and Methadone Maintenance Therapy (MMT). Although new drug addiction cases decreased from 13,680 in 2011 to 13,270 in 2014, relapse cases increased from 5,848 in 2011 to 7,956 in 2014, mainly due to the availability of locally manufactured synthetic drugs and the continuous societal stigmatisation of drug addicts.

Jabatan Penjara Malaysia transformed the incarceration approach of inmates from penitentiary to correctional and rehabilitation. Inmate rehabilitation was undertaken through various methods, such as face-to-face family meetings, self-development programmes, and early release for rehabilitated inmates through the parole system. In addition, the Community Rehabilitation Programme (CRP) was implemented to provide inmates with the necessary technical skills to secure jobs upon reintegration into society so as to reduce recidivism and to reduce prison congestion. The overall recidivist rate of inmates remained in the range of 7% to 8% from 2011 to 2014.

<sup>1</sup> World Justice Project Rule of Law Index covers eight components, namely constraints on government power, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice and criminal justice. Order and Security measures three dimensions covering various threats: crime particularly conventional crime such as homicide, kidnapping, burglary, armed robbery, extortion and fraud; political violence including terrorism, armed conflict and political unrest; and violence as a socially-accepted means to redress personal grievances (vigilante justice).

## Enhancing social cohesion and national unity

Various community programmes were implemented to foster social integration and volunteerism, and to promote a greater spirit of tolerance and unity among Malaysians. The Department of National Unity and Integration or Jabatan Perpaduan Negara dan Integrasi Nasional (JPNIN), conducted 875,590 social interaction activities through organisations and programmes such as Kelab Rukun Negara, Sekretariat Rukun Negara, Integrasi Komuniti, Jaringan Sosial, Silang Budaya, and Persefahaman antara Penganut Agama. These programmes were implemented in collaboration with government agencies, private sector and NGOs.

Numerous initiatives were implemented to nurture youth volunteerism. The '1Malaysia For Youth' (iM4U) NGO, established in 2012, organised various volunteer programmes with the local community such as the iM4U Flood Relief, Volunteer Malaysia, and the Reach Out Convention and Celebration. The alumni of Program Latihan Khidmat Negara known as the National Service Volunteer Brigade also organised volunteer programmes in environmental conservation, sports, and natural disaster relief.

The Government established the National Unity Consultative Council (NUCC) in 2013. The NUCC is mandated to formulate a national blueprint for social cohesion and national unity which will be completed in 2015. The blueprint will focus on the reconciliation of five key areas, namely policy and legislation, culture, youth, national integration, and inclusive development. The NUCC has conducted 18 town hall meetings throughout Malaysia to deepen understanding of what it would take to build tolerance and integration in a multiracial society.

## Promoting a sports culture and developing talent to enhance wellbeing

During the Tenth Plan, "Sports for All" was promoted to encourage mass participation in sports, recreational, and fitness activities. A total of 417 programmes were conducted involving 175,600 participants including 2,600 persons with disabilities (PWD). Among the flagship programmes were FitMalaysia and the Sports for All League. In addition, a total of 1,871 1Malaysia Futsal Courts and 89 gymnasiums were built to increase access to sport facilities for all levels of society.

The Talent Development Programme for high-performance sports was implemented to identify and train potential athletes to participate in major tournaments such as the SEA Games, Commonwealth Games, Asian Games, and world championships. To date, 23,670 potential athletes have attended special training programmes. In addition, 2,603 PWD athletes participated in the People with Disabilities Sports Carnival in 2012, 74 talented PWD athletes joined the MSN Paralympic Programme in 2013, and 135 PWD athletes participated in the 11th Asian Paralympic Games in South Korea in 2014.

Malaysia's achievements in major international sports tournaments continue to be encouraging. Malaysian athletes, Dato' Lee Chong Wei won a silver medal and Pandelega Rinong Ak Pamg won a bronze medal in the 30<sup>th</sup> Olympic Games 2012 in London. Malaysia also excelled in various sporting events, namely the 20<sup>th</sup> Commonwealth Games 2014 in Glasgow, with six gold medals, 43 gold medals in the 27<sup>th</sup> SEA Games 2013 in Myanmar, and 15 gold medals in the 11<sup>th</sup> Asian Paralympic Games 2014 in Incheon, South Korea. In 2014, 36 Malaysian athletes were in the top 10 world ranking, as shown in Exhibit 4-5. Furthermore, Malaysian athletes like Dato' Lee Chong Wei and Dato' Nicol Ann David are international role models in their respective sports.

\* \* \*

The Tenth Malaysia Plan witnessed significant improvements in the overall wellbeing of Malaysians. Improvements in the quality of life and changing socio-economic structure has, however, led to higher expectations of service delivery on the part of the *rakyat*. Within healthcare, the ongoing challenge will be to ensure quality service

delivery to underserved communities and to address the prevalence of infectious diseases and lifestyle-related illnesses. The increased supply of affordable housing particularly in urban areas for youth and young married couples is still insufficient to keep pace with demand. Public security and safety remains a top concern for people, while law

enforcement efforts are hampered by insufficient collaboration across agencies and stakeholders. Mass sports participation remains low despite improved access and awareness campaigns, while the spirit of 1Malaysia and social cohesion are often undermined by polarising views and perceptions within society.

Exhibit 4-5

**Malaysian athletes ranked in the world top ten, 2014**

No.	Athletes	Sports	Category	World Ranking
1.	Dato' Lee Chong Wei	Badminton	Men's singles	1st
2.	Dato' Nicol Ann David	Squash	Women's singles	1st
3.	Sazali Abdul Samad	Bodybuilder	Men's 75 kilogram (kg)	1st
4.	Lilian Tan	Bodybuilder	Women's 55kg	1st
5.	<ul style="list-style-type: none"> <li style="width: 50%;">▪ Dato' Lee Chong Wei</li> <li style="width: 50%;">▪ Liew Darren</li> <li style="width: 50%;">▪ Hoon Thien How</li> <li style="width: 50%;">▪ Goh Soon Huat</li> <li style="width: 50%;">▪ Tan Wee Kiong</li> <li style="width: 50%;">▪ Goh V Shem</li> <li style="width: 50%;">▪ Tan Boon Heong</li> <li style="width: 50%;">▪ Lim Khim Wah</li> <li style="width: 50%;">▪ Chong Wei Feng</li> <li style="width: 50%;">▪ Chan Peng Soon</li> </ul>	Badminton	Men's team	2nd
6.	Syakilla Salni Jefry Krishnan	Karate	Women's below 61kg	2nd
7.	<ul style="list-style-type: none"> <li>▪ Emanuel Leong Teng Kwang</li> <li>▪ Ho Ying Thomsan</li> <li>▪ Ricky Leong Tze Wai</li> </ul>	Karate	Men's team kata	3rd
8.	Hizlee Rais	Lawn Bowls	Men's single	3rd
9.	<ul style="list-style-type: none"> <li>▪ Leong Mun Yee</li> <li>▪ Pandelega Rinong Ak Pamg</li> </ul>	Aquatics-Diving	Women's synchronized 10 metre platform	3rd
10.	Pandelega Rinong Ak Pamg	Aquatics-Diving	Women's 10 metre platform	4th
11.	Fatehah Mustapa	Track Cycling	Women's keirin	4th
12.	<ul style="list-style-type: none"> <li style="width: 50%;">▪ Izurin Refin</li> <li style="width: 50%;">▪ Mohd Shahir Rosdi</li> <li style="width: 50%;">▪ Mohd Hanafiah Dolah</li> <li style="width: 50%;">▪ Mohd Khairul Zaman</li> <li style="width: 50%;">▪ Mohd Muqlis Borhan</li> </ul>	<i>Sepak Takraw</i>	Men's regu	4th
13.	<ul style="list-style-type: none"> <li>▪ Ng Yan Yee</li> <li>▪ Cheong Jun Hoong</li> </ul>	Aquatics-Diving	Women's synchronized 3 metre springboard	5th
14.	Cheong Jun Hoong	Aquatics-Diving	Women's 3 metre springboard	7th
15.	Low Wee Wern	Squash	Women's singles	7th
16.	<ul style="list-style-type: none"> <li style="width: 50%;">▪ Noor Fairuz Azizan</li> <li style="width: 50%;">▪ Emilia Eva Natasha</li> <li style="width: 50%;">▪ Nor Farhana Ismail</li> <li style="width: 50%;">▪ Nurul Izzatul Hikmah Zulkifli</li> <li style="width: 50%;">▪ Rahilah Harun</li> </ul>	<i>Sepak Takraw</i>	Women's regu	7th
17.	<ul style="list-style-type: none"> <li>▪ Ooi Tze Liang</li> <li>▪ Ahmad Amsyar Azman</li> </ul>	Aquatics-Diving	Men's synchronised 3 metre springboard	9th

Source: National Sports Council of Malaysia, Ministry of Youth and Sports

# Summary of focus areas

## Eleventh Malaysia Plan, 2016-2020



### Achieving universal access to quality healthcare

Enhancing targeted support, particularly for underserved communities

Improving system delivery for better health outcomes

Expanding capacity to increase accessibility

Intensifying collaboration with private sector and NGOs to increase health awareness



### Providing adequate and quality affordable housing to poor, low- and middle-income households

Increasing access to affordable housing for targeted groups

Strengthening planning and implementation for better management of public housing

Encouraging environment-friendly facilities for enhanced liveability



### Creating safer living environments for thriving communities

Enhancing crime prevention by enforcement agencies, private players, and the public to elevate perception of feeling safe

Tightening regulations and strengthening enforcement to stem crime

Promoting crime awareness for effective prevention

Enhancing rehabilitation, treatment, and aftercare to reduce recidivism among ex-inmates and relapse among drug addicts



### Improving road safety and emergency services to reduce fatalities

Improving road safety to reduce accidents

Improving emergency services to save lives



### Enculturating the spirit of 1Malaysia to foster social cohesion and national unity

Promoting social integration and ethics to foster a united and moral society

Intensifying stakeholder engagement to build a shared sense of responsibility



### Promoting sports for healthy living and unity

Promoting mass sports participation at all levels of society to instil a sports culture

Developing youth leadership in sports

Developing high performance athletes for global prominence



**Malaysian Wellbeing Index**

Increase per annum, compared to 1.1% during the Tenth Plan



**Achieving universal access to quality healthcare**



Hospital beds per 1,000 population<sup>1</sup>

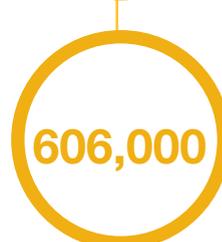


Doctor to population ratio

**Providing adequate and quality affordable housing to poor, low- and middle-income households**



Houses to be constructed/ repaired for the poor



Houses to be developed for low- and middle-income households

**Enculturating the spirit of 1Malaysia to foster social cohesion and national unity**



Number of schools with Kelab Rukun Negara

**Creating safer living environments for thriving communities**



Percent of population feeling safe



Annual reduction in crime index

**Promoting sports for healthy living and unity**



Minimum percentage of Malaysians who embrace a sports culture

**Improving road safety and emergency services to reduce fatalities**



Optimised emergency response time



Road fatalities index per 10,000 registered vehicles



Optimised police response time

<sup>1</sup> Includes public and private hospitals, maternity and nursing homes, hospices and ambulatory care centres.

# Moving forward

## Eleventh Malaysia Plan, 2016-2020

The Eleventh Malaysia Plan aims to enable all Malaysians - regardless of where they live or how much they earn - to achieve a comfortable standard of living and quality of life.

By 2020, Malaysia aspires to become an advanced nation on multiple dimensions. This is not merely about becoming an advanced economy, but also about building a caring and inclusive nation that is grounded in ethics and morality, and truly integrated and united. This aspiration will be driven by the concept of 1Malaysia based on the principles of the Federal Constitution and Rukun Negara. The wellbeing of the *rakyat* plays a key role in realising this aspiration.

Under the Eleventh Plan, the Government will accelerate efforts to achieve universal access to quality healthcare by targeting underserved areas, and increasing capacity of both facilities and healthcare personnel. Access to quality affordable housing will be further enhanced by expanding and strengthening existing programmes for poor, low- and middle-income households, and providing more avenues for youth homeownership. To create safer living environments, the Government will increase community policing and omnipresence, enable cross-agency collaborations, and build the capabilities of law enforcement personnel. Strategies to improve road safety awareness and the effectiveness of emergency services will also be introduced. Social cohesion and unity programmes will be strengthened to promote an understanding of diversity through interactions and shared experiences such as community-based volunteerism activities. Finally, the Government will further promote mass sports participation to achieve healthy minds and bodies, and improve programmes to identify and build world-class sporting talent. The overall Malaysian Wellbeing Index, a measure of the nation's progress in the quality of life of the the *rakyat* is expected to

increase by 1.7% per annum, during the Eleventh Plan.

To deliver these improvements, the Government will move towards more targeted support to those who need it most, embrace streamlined operations across agencies to optimise the use of public resources, and intensify the use of interventions that bring together all stakeholders – public, private sectors and NGOs – in an integrated and collaborative manner. The latter shift is particularly important, as all citizens and stakeholders have a collective responsibility to build a more cohesive society that reflects the best ideals of Malaysia's founding fathers, and the hopes and dreams of future generations.

These aspirations will be achieved under the Eleventh Plan through the following focus areas:

- Focus area A: Achieving universal access to quality healthcare
- Focus area B: Providing adequate and quality affordable housing to poor, low- and middle-income households
- Focus area C: Creating safer living environments for thriving communities
- Focus area D: Improving road safety and emergency services to reduce fatalities
- Focus area E: Enculturating the spirit of 1Malaysia to foster social cohesion and national unity
- Focus area F: Promoting sports for healthy living and unity



## Focus area A

# Achieving universal access to quality healthcare

Good health is essential for a good quality of life. Consequently, the Government remains committed to achieving universal access to quality healthcare during the Eleventh Plan by continuing efforts to improve the fundamentals of the health system. This means that every Malaysian will have equal access to affordable and good quality healthcare services, whether delivered by public or private providers. This aspiration will be realised through four strategies:

- **Strategy A1: Enhancing targeted support, particularly for underserved communities.** Specific initiatives include the expansion of mobile healthcare, the improvement of primary healthcare teams, and domiciliary healthcare programmes;
- **Strategy A2: Improving system delivery for better health outcomes.** Measures include the introduction of lean management practices in public hospitals to release latent capacity, and better enforcement of health regulations to improve transparency and health outcomes;
- **Strategy A3: Expanding capacity to increase accessibility.** Initiatives include developing new facilities, upgrading existing facilities, as well as enhancing healthcare personnel capacity and capabilities; and
- **Strategy A4: Intensifying collaboration with private sector and NGOs to increase health awareness.** Such collaboration will span a broad range of initiatives, from community health and prevention programmes, to research and development efforts between industries, universities and research institutions.

## Strategy A1

### Enhancing targeted support, particularly for underserved communities

Access to quality healthcare, particularly in underserved urban and rural areas and communities will be expanded. This includes the extension of services to poor and low-income households, Orang Asli in Peninsular Malaysia, and rural and remote areas in Sabah and Sarawak. Measures will include the deployment of more specialists and skilled personnel, the establishment of additional healthcare facilities in the areas of greatest need, and the expansion of outreach programmes. For example, mobile healthcare teams, flying doctor services, and village health promoters will be expanded to remote areas.

Domiciliary healthcare programmes will be expanded to include care programmes for patients who require long-term nursing upon early discharge, such as stroke patients. Healthcare personnel will train family members and caregivers to care for these patients. NGOs will also be encouraged to participate and provide support and services to the patients and their families.

Integrated care will be improved through primary healthcare teams to enhance access, quality, and efficiency. Selected clinics will be upgraded into advanced clinics that provide a full range of multidisciplinary services to enhance and support primary healthcare teams.

## Strategy A2

### Improving system delivery for better health outcomes

The Government will review and formulate health legislations and intensify enforcement through strengthened coordination between government agencies and the private sector. For example, the Government will consolidate health-related enforcement units in areas such as pharmaceutical, disease control, food safety, hygiene, and cleanliness, as well as medical practice and professionalism.

Healthcare services will adopt lean management practices to streamline work processes and procedures in order to enhance effectiveness and efficiency. This includes optimising efforts in bed management, robust operation theatre scheduling, and best practice treatment. Expected outcomes include the release of latent capacity or bed days, shortened patient waiting times, improved patient outcomes and satisfaction, and optimised use of healthcare resources. The Government will also implement the hospital cluster concept in selected locations, where hospitals within the same geographical location will work as one unit, sharing resources such as assets, amenities, and human resource.

The Government will implement the eHealth strategy, which incorporates existing Information and Communications Technology (ICT) systems into one, system-wide model to enhance health data management, and support research, development and commercialisation (R&D&C) initiatives. The Government will also work with the private sector to increase information sharing and strengthen the role of the private sector in service delivery. To drive innovation through R&D&C activities, partnerships across the quadruple helix of government, industry, universities, and research institutions will be promoted.

Initiatives will also focus on improving pre-hospital care such as ambulance services, as well as accident and emergency services. Collaboration among agencies that provide ambulance services, private healthcare providers, and NGOs will be strengthened to improve response time and better utilise resources.

## Strategy A3

### Expanding capacity to increase accessibility

Existing healthcare facilities and assets will be upgraded, while the development of new facilities will take into account functionality, cost-effectiveness, and the needs of local communities. In this regard, the private sector will be encouraged to collaborate and set up more healthcare facilities that cater to the needs of low- and middle-income households. The number and distribution of health specialists and skilled personnel will also be improved by reviewing policies, incentives, and capability building programmes. Incentive packages will be reviewed to attract health personnel to serve in rural and remote areas.

## Strategy A4

### Intensifying collaboration with private sector and NGOs to increase health awareness

Measures will be undertaken to reduce communicable diseases (CD) and non-communicable diseases (NCD), which includes the provision of preventive healthcare services and the promotion of a healthy lifestyle. The private sector will be encouraged to undertake corporate social responsibility programmes (CSR), and to collaborate with the Government in research and development. NGOs will be encouraged to provide health advocacy activities, health screening, and early health interventions, as well as to work with the private sector in carrying out health-related CSR programmes. Community participation in health promotion programmes, such as the use of public parks and recreational areas to promote healthy lifestyles will be encouraged.

Intervention programmes where the community will be trained to promote health, such as KOSPEN, will continue to address lifestyle related diseases. In addition, Komuniti Bebas Aedes & Tuberculosis (COMBAT), will be enhanced to control CDs through community initiatives such as *gotong royong* to promote a healthy environment to reduce disease transmission.



## Focus area B

# Providing adequate and quality affordable housing to poor, low- and middle-income households

Affordable housing is a platform that creates strong and stable communities, with better economic, education, and health outcomes for individuals, families and communities. The Government will therefore continue to provide affordable housing for the poor, low- and middle-income households, with differing levels of support based on need. The dream of owning one's first home will be achievable, providing a stable foundation for upward mobility. These aspirations will be achieved through three strategies:

- **Strategy B1: Increasing access to affordable housing for targeted groups.** This strategy will be delivered through the continuation of programmes for poor, low- and middle-income households, the introduction of targeted programmes for youth and young married couples, as well as the facilitation of greater private sector participation;
- **Strategy B2: Strengthening planning and implementation for better management of public housing.** Measures under this strategy include the development of an integrated database to match supply and demand and the establishment of a land bank for future development projects; and
- **Strategy B3: Encouraging environment-friendly facilities for enhanced liveability.** This will be achieved through an enhanced regulatory framework and collaboration among community and NGOs.

## Strategy B1

### Increasing access to affordable housing for targeted groups

The Government will continue to play a major role in meeting the housing needs for targeted groups in urban and rural areas by continuing successful, existing programmes. This includes programmes under the PBR for the poor, and programmes for low- and middle-income households such as the RMR1M, PPR, PRIMA, and PPA1M, as well as programmes for second-generation FELDA and FELCRA settlers. In addition, financing schemes such as the My First Home Scheme, Youth Housing Scheme and MyHome will be enhanced to improve access and affordability for low- and middle-income households.

Transit houses will be built for youth and young married couples in urban areas, including those proposed under the 1Malaysia Youth City programme. These transit houses provide such families with a short-term residence while they build up their savings to purchase their first home. The private sector will be encouraged to develop public housing, which can be done through public-private partnerships.

## Strategy B2

### Strengthening planning and implementation for better management of public housing

To improve the planning and development of affordable housing, an integrated database accessible to all relevant stakeholders will be established to ensure housing supply matches demand according to locality, price, and target groups. Additionally, a land bank will be established for the development of affordable housing, particularly in urban areas. Collaboration between the National Housing Department with State Islamic Religious Councils could be leveraged to unlock potential waqf and *baitulmal* land.

## Strategy B3

### Encouraging environment-friendly facilities for enhanced liveability

The Government will encourage all new affordable housing developments to adopt sustainable practices, and provide liveable and environment-friendly facilities and infrastructure for the *rakyat*, including PWD and senior citizens. Public housing rental rates will be reviewed to ensure that sufficient funds are available to cover the cost of management and regular standard maintenance of public housing.

Community involvement will be promoted to highlight collaborative responsibility in maintaining housing communities. Awareness programmes among residents to foster a culture of maintenance, cleanliness, and the prevention of vandalism will be enhanced through collaboration among communities and NGOs. MyBeautiful Malaysia will continue to promote a comfortable living environment and instil a culture of cleanliness among residents.



## Focus area C

# Creating safer living environments for thriving communities

Public security is key to the development of thriving communities as fear of crime restricts personal mobility, preys on peace of mind, and discourages investment in crime prone areas. The Government is therefore committed to creating safer living spaces and environments for the *rakyat*. Communities will have lower crime rates and higher perceptions of feeling safe, as well as greater public confidence in law enforcement agencies. These goals will be delivered through four strategies:

- **Strategy C1: Enhancing crime prevention by enforcement agencies, private players, and the public to elevate perception of feeling safe.** This includes building the capacity and capabilities of law enforcement personnel, and increasing collaboration across law enforcement agencies, the private sector, NGOs, and communities, particularly through community policing programmes;
- **Strategy C2: Tightening regulations and strengthening enforcement to stem crime.** This includes initiatives to strengthen legislation, increase the use of crime prevention measures, improve the management of foreign workers, and stem cross-border crime;
- **Strategy C3: Promoting crime awareness for effective prevention** through schools and social media. These programmes will be targeted at high-risk groups, particularly the youth; and
- **Strategy C4: Enhancing rehabilitation, treatment, and aftercare to reduce recidivism among ex-inmates and relapse among drug addicts.** A range of self-development programmes and community-based services will be strengthened to enable the successful reintegration of ex-inmates and drug addicts into society, and reduce recidivism and relapse.

### Strategy C1

## Enhancing crime prevention by enforcement agencies, private players, and the public to elevate perception of feeling safe

Crime prevention will be intensified through omnipresence, the Safe City Programme, and volunteerism programmes. The target is to reduce the crime index by 5% annually and increase the perception of feeling safe from 39% in 2014 to 60% in 2020. Omnipresence will be improved by redeploying more personnel to crime prevention tasks. Police response time to distress calls will be improved from 12 minutes to eight minutes, particularly in urban and major cities, through the deployment of an integrated information system known as the Command, Control, Communications, Computers and Integration (C4i) system.

The capacity and capabilities of enforcement personnel will be enhanced by providing the appropriate tools and capability building programmes. For example, collaborations with international policing bodies could be leveraged to enhance the knowledge and skills of enforcement personnel through specialised training and exchange programmes. The integrity of enforcement personnel will be bolstered through awareness programmes conducted by the Malaysian Institute of Integrity, and greater oversight by both the Malaysia Anti-Corruption Commission and the Enforcement Agencies Integrity Commission.

Inter-agency collaboration will be facilitated through the establishment of task forces and integrated databases among the relevant agencies. Increased joint operations and enhanced patrolling to combat cross-border crime will ensure faster responses and optimisation of manpower and resources. The Government will leverage on bilateral and multilateral relations to mitigate crimes such as human trafficking and smuggling.

In addition, public participation in community policing will be encouraged under SRS and PVR. The role of Jabatan Pencegahan Jenayah dan Keselamatan Komuniti (JPJKK) will be strengthened to enhance engagement between the police and public in crime prevention efforts. The private sector will also be encouraged to install CCTV cameras in hotspots that connect to PDRM control centres through an open network platform.

### Strategy C2

## Tightening regulations and strengthening enforcement to stem crime

Existing laws and regulations will be reviewed to improve crime prevention effectiveness. Crime Prevention through Environmental Design (CPTED) elements will be incorporated in the development of new residential and commercial areas. Theft deterrent measures in homes, such as CCTV cameras and security alarm systems will be encouraged as part of public self-policing efforts.

The management of foreign workers will be improved by enhancing the role of One-Stop Centre and through greater collaboration between the Immigration Department of Malaysia and local authorities to ensure effective enforcement. Moreover, to avoid student visa abuse, stricter screening procedures in countries of origin and stringent enforcement of regulations will be undertaken to ensure educational institutions with foreign students comply with immigration procedures.

Unlawful entry at immigration checkpoints will be curbed with the introduction of the Advanced Passenger Screening System (APSS), biometric, and facial recognition systems. Efforts to stem increasing cross-border crime will be bolstered through joint operations of border enforcement agencies, such as the Malaysian Maritime Enforcement Agency, Anti-Smuggling Unit, and ATM. Integrated detection, monitoring, and surveillance capabilities will be enhanced including the introduction of sea-basing platforms to deter border intrusions.

### Strategy C3

## Promoting crime awareness for effective prevention

The Government will undertake targeted social media campaigns aimed at high-risk groups, particularly the youth. The target audience will be educated on the dangers of drugs and crime, how to protect themselves from being victims of crime, and on the responsible use of the Internet and social media. In addition, safe online practices will be inculcated through the CyberSAFE in Schools programme implemented by CyberSecurity Malaysia and the Ministry of Education to safeguard young Internet users against negative content.

### Strategy C4

## Enhancing rehabilitation, treatment, and aftercare to reduce recidivism among ex-inmates and relapse among drug addicts

Rehabilitation, treatment and aftercare of inmates and drug addicts will be enhanced to achieve the targeted recidivist rate of 5% and relapse rate of 35% by 2020. To reduce the recidivist rate, the Government will strengthen self-development programmes that provide skills and entrepreneurship training, as well as provide more transit houses for ex-inmates. The CRP will be introduced for drug addicts through collaboration between the National Anti-Drugs Agency and related agencies. In addition, NGOs will be encouraged to provide support services for rehabilitation, treatment, and reintegration such as job placement and aftercare programmes.



## Focus area D

# Improving road safety and emergency services to reduce fatalities

Road safety and emergency services have been identified as an important new focus area under the Eleventh Plan to further improve the wellbeing of the *rakyat*. The Government aspires to reduce the incidences of road accidents and improve the delivery of emergency services to be on par with international standards. This will be achieved through two strategies:

- **Strategy D1: Improving road safety to reduce accidents** through more effective enforcement mechanisms and awareness campaigns; and
- **Strategy D2: Improving emergency services to save lives** through mobile patrolling, greater collaboration across agencies, and capability building programmes for first responders, dispatchers and rescuers.

## Strategy D1

### Improving road safety to reduce accidents

Driver negligence has been identified as the main cause of road accidents followed by road conditions and vehicle safety. Road accident fatalities remain high and increased from 6,877 fatalities in 2011 to 6,915 in 2013. The Government aims to reduce the road fatalities index from 2.9 per 10,000 registered vehicles in 2013 to 2.0 by 2020. This will be achieved through the wider implementation of the Automated Enforcement System (AES) and the review of KEJARA System or Sistem Kesalahan Jalan Raya, which imposes heavier penalties on errant drivers. At the same time, awareness campaigns will be further improved through the use of social media.

## Strategy D2

### Improving emergency services to save lives

Given the number of agencies involved in the provision of emergency services, the Government will facilitate greater cross-agency collaboration. This will ensure faster response times and more efficient deployment of resources to the accident site. In addition, the capability of first responders, rescuers, and dispatchers will be enhanced through specialised training and frequent emergency drills.



## Focus area E

# Enculturating the spirit of 1Malaysia to foster social cohesion and national unity

The concept of 1Malaysia is founded upon the aspiration of building a harmonious, progressive, and united Malaysian society, based on the underlying principle of “People First, Performance Now.” It emphasises the importance of understanding, respecting, and embracing the diversity that exists in a multiracial society. It also emphasises the value of a shared national identity, grounded in a common commitment to building a united and prosperous society.

Enhanced integration is key to fostering social cohesion and national unity. This can be achieved through the Eleventh Plan by reducing polarisation and various forms of socio-economic disparities across regions and ethnicities. The Government also recognises that the process of integration requires exposure to and interaction among communities, so as to promote an understanding and appreciation of Malaysia’s diverse society. During the Eleventh Plan, the Government will therefore focus on enhancing programmes and platforms for greater interaction, engagement, and collaboration among Malaysians.

In addition to social cohesion and national unity, the Government also aspires to foster a fully moral and ethical society, in line with the aspirations set forth in Vision 2020. During the Eleventh Plan, the Government will therefore intensify collaboration with all stakeholders, particularly community-based and religious institutions, to foster a shared sense of responsibility for building a more moral and ethical society.

This combined vision of a cohesive, united, and ethical community will be achieved through two strategies:

- **Strategy E1: Promoting social integration and ethics to foster a united and moral society.** This will not only involve creating more shared experiences—from volunteerism to arts, culture and heritage—that will deepen Malaysians’ understanding and appreciation of diversity, but also enhance how ethics and morality are incorporated in the education system; and
- **Strategy E2: Intensifying stakeholder engagement to build a shared sense of responsibility.** This will be achieved by building an awareness of the role every stakeholder – government, private sector, communities, and individuals – has to play in building a tolerant and caring society.

## Strategy E1 Promoting social integration and ethics to foster a united and moral society

The Eleventh Plan will streamline existing social integration and unity programmes to reduce redundancy and improve impact. The Government will also increase the number of social integration and unity programmes in educational institutions, from schools to universities. For example, a total of 5,000 students from institutions of higher education will be sent for MySilang Career Programmes to enhance their acceptance and tolerance of Malaysians with varying backgrounds, through shared interactions and exposure.

RT will also be encouraged to organise and implement programmes to promote unity in their respective neighbourhoods. Under RT, more than 400 multi-ethnic female teams will be established through the J-NITA programme. Programmes such as KOSPEN, urban farming, and Bomba Sukarela will also serve as additional platforms to promote social integration.

Arts and culture will be developed to promote a shared Malaysian culture and heritage, and offer another platform to embrace diversity and a shared national identity. To promote cultural heritages like *mak yong* and *wayang kulit*, support will be given to develop the talent of interested individuals and communities. Research in arts and culture will be intensified to ensure the authenticity and continuity of Malaysia's national heritage. Access to arts and cultural activities will also be enhanced and promoted through greater community participation.

The capabilities and capacity of various research and training institutions will be enhanced to improve national planning, monitoring and implementation of unity, and ethnic relations programmes. The Institute of Ethnic Studies and the National Integration Research and Training Institute will also be strengthened.

Under the Malaysia Education Blueprint 2013-2025, the Government has defined ethics and spirituality as one of six desired student outcomes. The formal schooling curriculum, from preschool through to higher education will therefore also be enhanced to achieve the desired outcome. More public campaigns will be conducted by relevant agencies to instil values of civic mindedness among youth. These programmes will also be targeted at youths who are at risk.

## Strategy E2 Intensifying stakeholder engagement to build a shared sense of responsibility

Efforts to promote understanding, tolerance, and ethics will be done through extensive engagement with and involving communities. For example, at the community level, the Government will collaborate with NGOs to promote ethical and moral values through specially targeted programmes and awareness campaigns. Professional and community leaders will be encouraged to role model the desired behaviours of a caring society. Religious institutions are also expected to play a bigger role in fostering these values by conducting their own programmes.

As information accessibility rises, it is important that every Malaysian takes the initiative to practice responsible dissemination of information. Similarly, responsible reporting in mainstream and online media is important to ensure fair and non-inflammatory coverage of concerns vital to the Malaysian public.



## Focus area F

# Promoting sports for healthy living and unity

Sports is an important component in promoting an active and healthy lifestyle. Mass participation in sports will enhance social integration and unity among Malaysians. The vision is for 50% of Malaysians to embrace a sports culture, where sports and physical activities are an integral part of life, by 2020. These aims will be realised through the following strategies:

- **Strategy F1: Promoting mass sports participation at all levels of society to instil a sports culture.** This will be achieved through stronger collaboration between the government, private sector, NGOs and community;
- **Strategy F2: Developing youth leadership in sports.** This will be achieved through measures such as capability building programmes to build the capacity and professionalism of sports associations and NGOs; and
- **Strategy F3: Developing high-performance athletes for global prominence** through specialised training programmes, more rigorous compliance with international standards and the hosting of international sports events.

### Strategy F1

## Promoting mass sports participation at all levels of society to instil a sports culture

The Government will focus on strategies to make Malaysia a sporting nation with extensive community participation in various sports, fitness, and recreational activities. Iconic programmes such as FitMalaysia, Sports for All League, Sports for PWD, and futsal championships will be expanded. Public parks will be used for recreational and community sporting events. Collaboration among

government, private sector, and NGOs in promoting and implementing sports programmes, as well as providing and maintaining sports facilities will be strengthened.

### Strategy F2

## Developing youth leadership in sports

The Government will invest in more skill enhancement programmes to improve the professionalism of youth and leaders in sports and sports associations. Comprehensive sports leadership programmes, particularly in events, integrated sports management and coach education programmes, will be enhanced to develop potential leaders in sports and sports-related activities.

### Strategy F3

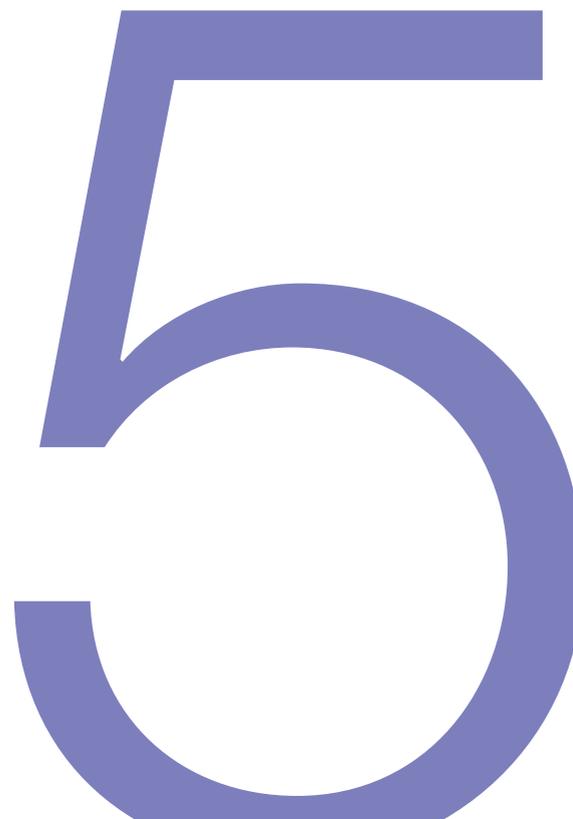
## Developing high-performance athletes for global prominence

In preparation for the 2020 Olympic Games, talent identification programmes will be conducted at schools and institutions of higher education to identify potential athletes. Comprehensive training programmes will also be developed and sports facilities improved. The development of high-performance athletes will be supervised by a dedicated team, consisting of various experts. In addition, the capability of the Anti-Doping Agency of Malaysia (ADAMAS) will be enhanced to meet international standards and the requirements of the World Anti-Doping Agency in enforcing zero tolerance to doping. ADAMAS will also conduct awareness and education programmes on doping among athletes nationwide. Finally, Malaysia will continue to host international sports events and tournaments to provide a platform to showcase Malaysia's sporting talent.





# Accelerating human capital development for an advanced nation



## **Overview**

### **Highlights Tenth Malaysia Plan, 2011-2015: Achievements**

#### **Looking back Tenth Malaysia Plan, 2011-2015: Progress**

Creating more jobs and maintaining full employment

Improving legislations and institutions to transform the labour market

Mainstreaming and broadening access to quality TVET programmes

Upskilling the workforce through lifelong learning

Improving education delivery through better access and quality

#### **Summary of focus areas Eleventh Malaysia Plan, 2016-2020**

##### **Moving forward Eleventh Malaysia Plan, 2016-2020**

Focus area A: Improving labour market efficiency to accelerate economic growth

Focus area B: Transforming TVET to meet industry demand

Focus area C: Strengthening lifelong learning for skills enhancement

Focus area D: Improving the quality of education for better student outcomes and institutional excellence

## **Conclusion**

## Overview

Human capital development is a critical enabler for driving and sustaining Malaysia's economic growth. The availability of a skilled workforce is necessary to support the transition of all economic sectors towards knowledge-intensive activities, drive labour productivity gains, and attract investment into Malaysia. Furthermore, an efficient and inclusive labour market will resolve mismatches in workforce demand and supply, and enable all Malaysians to participate in and benefit from the nation's economic growth. Investments in education also play a pivotal role in improving social mobility and the wellbeing of the *rakyat*.

**During the Tenth Malaysia Plan, 2011-2015**, the Government introduced a range of measures to improve the labour market and transform its education system. Key achievements include the creation of 1.8 million new jobs that contributed to a decline in the unemployment rate from 3.3% in 2010 to 2.9% in 2015, which is considered full employment. The Government also implemented a minimum wage that is estimated to benefit 1.9 million wage earners. In education, there was an increase in enrolment across all levels, from preschool to tertiary. Annual intake in Technical and Vocational Education and Training (TVET) also grew from 113,000 in 2010 to 164,000 in 2013. Furthermore, major strategy documents such as the Malaysia Education Blueprint 2013–2025 (Preschool to Post-Secondary Education), the Malaysia Education Blueprint 2015-2025 (Higher Education), and the Talent Roadmap 2020 have charted out clear transformation journeys for the development of the human capital ecosystem.

**The Eleventh Malaysia Plan**, 2016-2020, will continue to push the agenda of producing human capital that is equipped with the right knowledge, skills, and attitudes to thrive in a globalised economy. The Government will focus on four areas: improving the efficiency of the labour market to accelerate economic growth, transforming TVET to meet industry demand, strengthening lifelong learning for skills enhancement, and improving the quality of the education system for better student outcomes and institutional excellence. The economic agenda outlined in the Eleventh Plan is expected to create 1.5 million jobs by 2020, with targeted improvements in labour productivity and reduced dependency on low-skilled foreign workers, both of which are a result of the continuous shift from labour-intensive to knowledge- and innovation-based economic activities. 60% of the jobs that will be created are expected to require TVET-related skills. In that regard, TVET is identified as a game changer in how Malaysia produces skilled talent at scale. Collectively, these focus areas will produce the world-class talent base that Malaysia needs in the final leg of its journey towards becoming an advanced nation.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements

2.9%

Unemployment rate by end 2015, with the economy continuing to be in full employment

1.8 million

Number of new jobs that are expected to be created by end of 2015

1.9 million

Number of wage earners that have benefited from the minimum wage introduced in 2012

55%

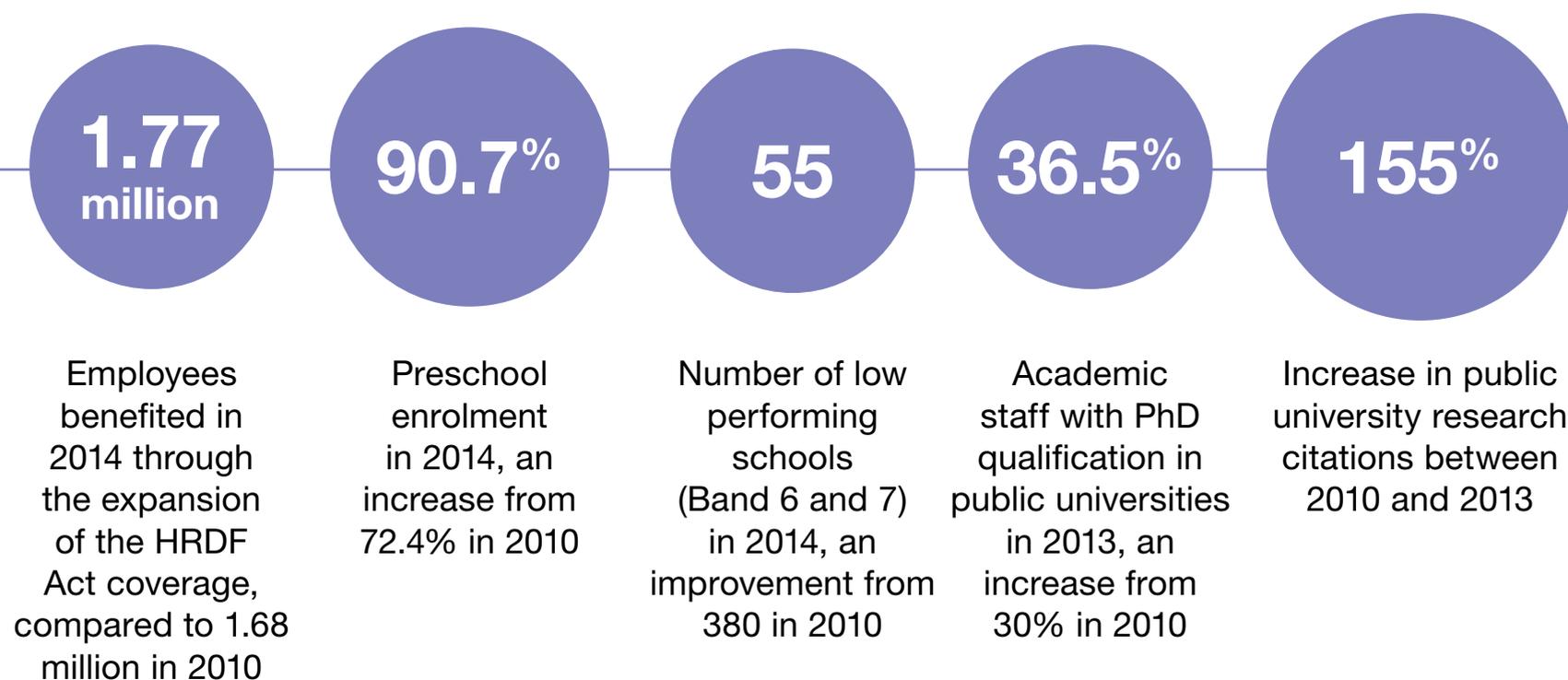
Female labour force participation rate in 2015, an increase from 46.8% in 2010

164,000

Intake in TVET programmes in 2013, an increase from 113,000 in 2010

**Creating more jobs and maintaining full employment**

**Mainstreaming and broadening access to quality TVET programmes**



**Upskilling the workforce through lifelong learning**

**Improving education delivery through better access and quality**

# Looking back

## Tenth Malaysia Plan, 2011-2015: Progress

The Tenth Malaysia Plan advanced the human capital development agenda, contributing to the growth of the economy and strengthening Malaysia's position as one of the most competitive countries in the region.

Malaysia achieved remarkable gains in human capital development during the Tenth Plan. Notable achievements include improving labour market institutions, mainstreaming TVET, promoting lifelong learning, as well as improving education system delivery. These achievements have contributed to the growth of the economy and strengthened Malaysia's position as one of the most competitive countries in this region.

### Creating more jobs and maintaining full employment

The labour force grew at 2.8% per annum in the Tenth Plan and is expected to increase from 12.4 million in 2010 to 14.2 million in 2015. This growth is mainly driven by an increase in the working age population and higher female labour

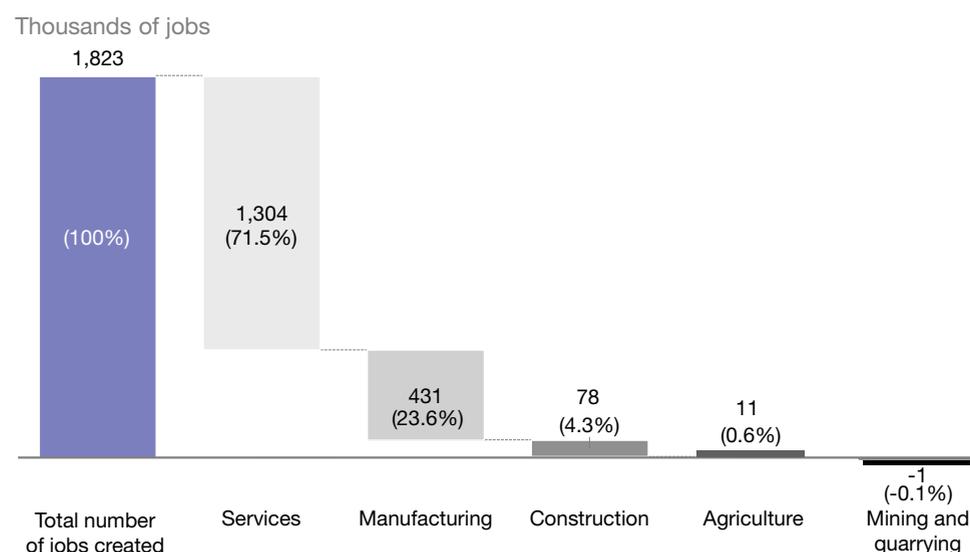
force participation rate, which is expected to increase to 55%<sup>1</sup> in 2015 from 46.8% in 2010. Employment grew by 2.9% contributing to a lower unemployment rate of 2.9% in 2015, compared to 3.3% in 2010. This is the equivalent to achieving full employment<sup>2</sup>. During the Tenth Plan, the economy grew by 5.3% per annum and created 1.8 million new jobs, wherein 71.5% or 1.3 million jobs were in services and 23.6% or 431,000 jobs were in manufacturing, as shown in Exhibit 5-1.

### Improving legislations and institutions to transform the labour market

During the Tenth Plan, concerted efforts were made to bring about institutional reforms in the labour market. Labour legislations, such as the

Exhibit 5-1

### Jobs creation by sector, 2011-2015



Source: Department of Statistics Malaysia

<sup>1</sup> 2014 female labour force participation rate is 53.6%

<sup>2</sup> Based on the definition set by the Organisation for Economic Co-operation and Development (OECD), an unemployment rate below 4% is considered full employment.

## Box 5-1

**Demographic changes shaping the workforce**

Demographic transitions influence overall human capital development in terms of both the supply and demand of the workforce. The population was 28.6 million in 2010 and is expected to increase to 30.5 million in 2015. However, the population growth rate declined to 1.3% as shown in Exhibit 5-2. This was due to the decrease in the total fertility rate<sup>1</sup> to 2.1 in 2015, which is equivalent to the replacement level<sup>2</sup>.

The young population (0-14 years) is expected to decline from 7.8 million in 2010 to 7.7 million in 2015 while the working age population (15-64 years) is expected to increase from 19.3 million to 21 million during the same period, contributing to a demographic dividend<sup>3</sup>. The older population (65 years and above) is expected to grow at 4.5% per annum to reach 1.8 million in 2015.

The urban population is expected to increase from 20.3 million in 2010 to 22.7 million in 2015, with a growth of 2.2% per annum. The rural population, however, is expected to decline by 1.2% per annum from 8.3 million in 2010 to 7.8 million in 2015. In 2015, the urban population is expected to amount to 74.3% of total population, which will lead to an increase in demand for infrastructure, housing, education, and health facilities in urban areas.

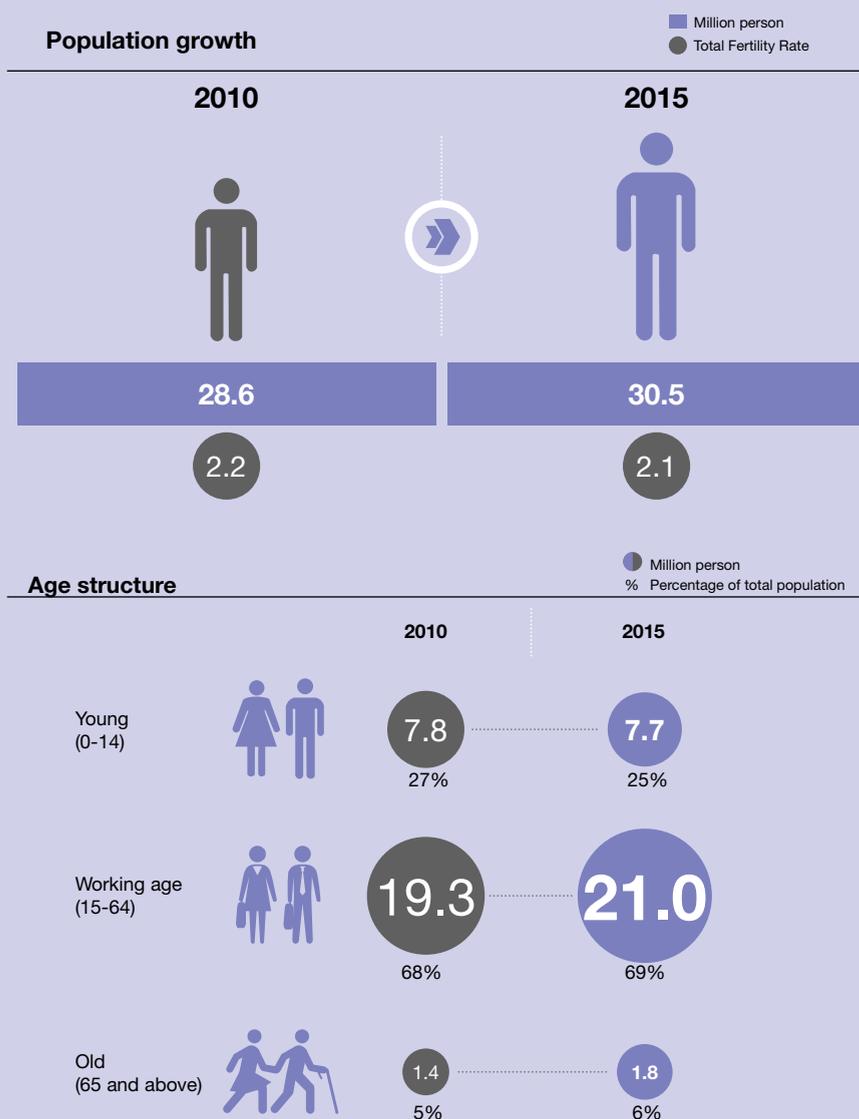
Source: Department of Statistics Malaysia

<sup>1</sup> Total fertility rate refers to the average number of children borne by a woman during her child bearing age of 15-49 years old. In 2013, it was 2.1 and is expected to remain until 2015.

<sup>2</sup> Replacement level is the level of fertility, normally 2.1 children for every woman in the child bearing age of 15-49, whereby a country experiences zero population growth. However, due to 'population momentum' the population will continue to register positive growth for several years.

<sup>3</sup> A demographic dividend is achieved as a result of a growing population in the age cohort of 15-64 years that is active in employment, and their employment is able to cover the needs of their dependents who are outside the labour force. Demographic dividend is measured using the declining dependency ratio which shows the number of dependents (aged 0-14 and age over 64) to the total working age population (aged 15-64).

Exhibit 5-2

**Population statistics 2010 - 2015**

Employment Act, 1955, Industrial Relations Act, 1967 and Trade Unions Act, 1959 were reviewed on a regular basis to keep pace with the dynamics of the labour market. Furthermore, 1.9 million wage earners benefited from the introduction of minimum wage through the Minimum Wage Order in 2012.

Talent Corporation was established in 2011 to attract and retain the talent needed for an advanced nation. The Talent Roadmap 2020 enunciated strategies for Malaysia to be among the top 20 talent destinations in the world and focused on three dimensions: optimising Malaysian talent, attracting and retaining foreign talent and building a network of top talent. Since its inception, Talent Corporation has successfully attracted 3,110 Malaysian professionals under the Returning Expert Programme and approved 3,210 passes under the Residence Pass-Talent programme.

The National Institute of Human Resources was upgraded to the Institute of Labour Market Information and Analysis (ILMIA) under Ministry of Human Resources (MoHR) in 2012 to improve labour market information analyses and coordinate research on labour market issues. The Labour Market Information Data Warehouse (LMIDW) was established in 2013 to share key information such as projections of workforce supply and demand by economic sectors and development corridors in a single platform. The LMIDW has enabled the Government to make better evidence-based policies, as well as improve dissemination of information to industries, Institutions of Higher Education (IHEs)<sup>3</sup>, and other stakeholders including international organisations.

## Mainstreaming and broadening access to quality TVET programmes

During the Tenth Plan, efforts to mainstream and broaden access to quality TVET were carried out to address industry demand for skilled workers and improve public perception of TVET as a career pathway. These efforts resulted in an increased intake from 113,000 in 2010 to 164,000 in 2013.

A TVET Task force led by the Malaysian Qualifications Agency (MQA) under Ministry of Education (MoE) and Department of Skills Development (DSD) under MoHR was established in 2012 to coordinate

delivery and improve efficiency among different institutions. One initiative involved the rationalisation of programmes offered by public TVET institutions to avoid duplication as well as enhance specialisation. In addition, the Skim Kemahiran dan Kerjaya 1Malaysia (SKK1M) was introduced in 2012 as a platform for TVET graduates to secure employment. 10,400 TVET graduates benefited from this scheme at the end of 2014.

Prior to 2011, the role of the Bahagian Pengurusan Kemasukan Pelajar (BPKP) under MoE, formerly known as Unit Pusat Universiti, was to coordinate all applications to public universities. In 2011, its mandate was expanded to include public TVET institutions to better reflect student preferences and the availability of training places. Based on existing tracer studies for IHEs and selected public TVET institutions, a Centralised Tracer Study system was customised and expanded to all public TVET institutions in 2013. The graduate employability data collected through this Study enabled better coordination in reporting programme outcomes.

22 Industry-Lead Bodies (ILB) were established under the DSD of MoHR to align the TVET curriculum with industry requirements and prepare the National Occupational Skills Standard (NOSS). A total of 582 NOSS and 16 Occupational Analysis were developed for reference by TVET institutions during the Tenth Plan. The National Dual Training System (NDTS) which provides industry-oriented workplace training has benefited 63,000 employees since its introduction in 2004. 38,000 employees benefited during the Tenth Plan including 12,835 youth who had newly entered the labour market.

A big shift in TVET delivery was driven by the conversion of the existing 72 Vocational Schools and eight Technical Schools run by the MoE into vocational colleges, as well as the setting up of eight new colleges. These new institutions offer students the opportunity to begin TVET education as early as 16 years and to graduate with a diploma. From 2011 to 2014, 19,747 students enrolled, with the first batch of 2,700 students expected to graduate in 2016. The vocational college curriculum is also offered in partnership with other public TVET institutions including Institut Latihan Perindustrian (ILP), under MoHR.

<sup>3</sup> Institutions of Higher Education (IHEs) are defined under the Universities and Universities Colleges Act 1971 as public universities and as private universities and university colleges in the Private Higher Educational Institutions Act 1996. Community colleges and polytechnics are TVET institutions.

The capacity of the Centre for Instructor and Advanced Skill Training (CIAST) was expanded by establishing eight new satellite campuses. This resulted in the doubling of the number of instructors with Vocational Instructor Certifications (VIC) from 1,460 in 2010 to 3,060 in 2014.

## Upskilling the workforce through lifelong learning

Under the Tenth Plan, lifelong learning focused on skills upgrading and continuous professional development for employees. The provisions of the Skills Development Fund (SDF) were expanded in 2011 to offer loans to employees for skills upgrading, which benefited 3,424 employees since 2011 until 2014. In addition, skills upgrading programmes for employees of small and medium enterprises (SME) have benefited 32,850 employees as of 2014.

The PhD Industry Programme is an industrial based research alternative to the conventional PhD. To date, 177 candidates from 30 industries have benefited from this full-time postgraduate programme with candidates spending most of their research time in their respective industry-based organisations.

The Human Resource Development Fund (HRDF) Act, 2001, encourages employers to retrain and upgrade the skills of their employees, apprentices and trainees based on their business needs.

*Exhibit 5-3*

### Comparison of HRDF Act coverage between 2010 and 2014

Economic sector	2010			2014		
	Sub-sectors	Employers	Employees	Sub-sectors	Employers	Employees
Mining and Quarrying	-	-	-	2	14	2,710
Manufacturing	23	6,946	920,324	23	7,009	957,172
Services	21	7,170	759,387	38	7,459	805,610
	<b>44</b>	<b>14,116</b>	<b>1,679,711</b>	<b>63</b>	<b>14,482</b>	<b>1,765,492</b>

Source: Human Resources Development Fund (HRDF)

The Fund was expanded to additional subsectors<sup>4</sup>, thereby increasing its coverage from 1.68 million employees in 2010 to 1.77 million in 2014, as shown in Exhibit 5-3.

## Improving education delivery through better access and quality

### Preschool to post-secondary

The Government intensified collaboration with key stakeholders, particularly the private sector, to provide access to quality education for all children. This included providing grants and fee assistance for private preschool operators, which helped increase enrolment for children aged 4+ to 5+ from 72.4% in 2010 to 90.7% in 2014.

The Literacy and Numeracy Screening (LINUS) programme was introduced in 2010 to ensure every child is literate and numerate after their first three years of schooling. Between 2010 and 2012, the programme increased Bahasa Melayu literacy from 84.9% to 99.1% and numeracy skills from 90.9% to 99.3%. In 2013, LINUS was expanded to include English literacy, improving Year One students' English literacy from 50% to 63% within four months.

The Government identified 20 schools in 2010 as High Performing Schools (HPS) based on stringent criteria, including academic performance and co-curricular achievements. These schools were given autonomy and incentives to create innovative learning environments that maximise student potential. By 2014, the total number of HPS had increased to 128 schools, benefiting over 100,000 students.

The Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education) or MEB, launched in 2013, outlines 11 shifts (described in Box 5-2) to achieve universal enrolment from preschool to secondary level, raise the quality of the national education system to the top third of countries globally, halve student achievement gaps, foster national unity and maximise the Government's return on investment. The ultimate aim is to develop Malaysians with

<sup>4</sup> There are 19 sectors under the Malaysia Standard Industrial Classification (MSIC) which comprises of 88 subsectors. Under the Eleventh Plan, the HRDF Act plans to cover all subsectors except Construction (which will be under CIDB).

## Box 5-2

**The Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education)**

In 2013, the Government launched the MEB, outlining a comprehensive transformation programme for students from preschool to post-secondary. The Blueprint evaluates the performance of the current system along dimensions of access, quality, equity, unity and efficiency, and defines 11 shifts to raise the quality of the national education system. These shifts are set out in Exhibit 5-4.

The education transformation is sequenced in three waves. Wave 1 (2013-2015) aims to turn around the education system by raising teacher quality and improving student literacy. Wave 2 (2016-2020) focuses on accelerating the improvement of the education delivery system, whereas Wave 3 (2021-2025) will focus on increasing operational flexibility to cultivate a peer-led culture of professional excellence. This in turn will create a self-sustaining system that is capable of innovating and achieving greater heights. The Education Performance and Delivery Unit (PADU) was established in 2013 as a unit under the Ministry of Education to facilitate, support, and drive the delivery of the Blueprint.

Exhibit 5-4

**11 Shifts of the MEB**

the knowledge, critical thinking skills, leadership skills, language proficiency, ethics and spirituality, and national identity to succeed in the 21st century.

Malaysia has continued to improve access to primary and secondary education. The primary education enrolment rate increased from 95.7% in 2010 to 97.9% in 2014, while the gap in enrolment rates between boys and girls has been reduced from 1% to 0%. At the secondary level, the enrolment rate increased from 88.1% in 2010 to 90% in 2014.

In 2011, the new Standard Curriculum for Primary School which emphasised Higher Order Thinking Skills (HOTS) was introduced to encourage students to be more critical and creative problem solvers. The forthcoming Standard Curriculum for Secondary School places a similar emphasis on the teaching and learning of HOTS. To support these changes, the MoE rolled out programmes such as iThink to train students and teachers in the use of creative thinking tools. This emphasis on HOTS is expected to improve student outcomes in the Programme for International Student Assessment (PISA) and Trends in Mathematics and Science Study (TIMSS) in 2016.

### Higher education

Enrolment increased across all levels of study in public universities, private universities, and university colleges between 2010 and 2013, as shown in Exhibit 5-5. Enrolment in PhD programmes increased by 56.3% from 2010 to 2013. At the masters level, enrolment increased by 31.7% and enrolment for bachelor programmes surpassed the half million mark, representing an increase of 7% from 2010 to 2013. In addition, as shown in Exhibit 5-6, in 2013, 53.6% or 560,360 students were enrolled in public universities and 46.4% or 484,960 students in private universities and university colleges. In the first three years of the Tenth Plan alone, enrolment in public universities increased by 21%, making them the largest provider of tertiary education in the nation.

Academic performance for students in public university bachelor programmes improved with 17.5% of total graduates attaining Cumulative Grade Point Average (CGPA) scores of 3.49 and above in 2013, as compared to 13.6% in 2010, as shown in Exhibit 5-7. This represents an increase of 31.7% between 2010 and 2013. In 2013, 75.5% of public university graduates and 73.2% of private university graduates

were found to have either secured employment when the tracer study was conducted, decided to continue further studies, or were awaiting job placement, as shown in Exhibit 5-8.

Total academic staff in public universities increased from 26,700 in 2010 to 33,140 in 2013. Additionally, total number of academic staff with PhD qualification in public universities increased by 31.6% from 2010 to 2013, as shown in Exhibit 5-9. In 2013, four out of five Malaysian Research Universities (MRUs), namely Universiti Malaya, Universiti Sains Malaysia, Universiti Putra Malaysia and Universiti Teknologi Malaysia exceeded the 50% target set for academic staff with PhD qualification while seven out of 15 non-MRUs surpassed the 30% target. The higher ratio of academic staff with PhDs will contribute to an improvement in university rankings.

Public universities made big strides in research publications and citations. From 2010 to 2013, total publications increased by 56% and citations by 155%, as shown in Exhibit 5-10. A total of 4,030 patents were filed by MRUs and 314 patents were granted between 2010 and 2013 as shown in Exhibit 5-11. Moreover total patents owned by MRUs have also increased. In 2013, 75 products were commercialised as compared to 36 products in 2007.

\* \* \*

Despite the remarkable gains achieved during the Tenth Plan, key challenges remain. While the number of jobs increased, most of them were in semi-skilled occupations, which in turn contributed to relatively low labour productivity gains. Additionally, the compensation of employees<sup>5</sup> to GDP is low in comparison with other middle- and high-income countries. The supply of TVET graduates – both quality and quantity – is still not fully aligned with industry demand, and TVET is still perceived by students to be a less attractive pathway. More effective lifelong learning programmes are required to support workforce demand for ongoing upskilling. Finally, substantial improvements on a range of levers from the quality of teachers and academic staff, to the governance and operations of schools and IHEs are required to improve the performance of the education system on the dimensions of access, quality, equity, unity, and efficiency.

<sup>5</sup> Compensation of employees refer to the total remuneration (wages and salary), in cash or in kind, payable by an enterprise to an employee.

Exhibit 5-5

**Enrolment by level of study in public universities, private universities and university colleges, Number of students**

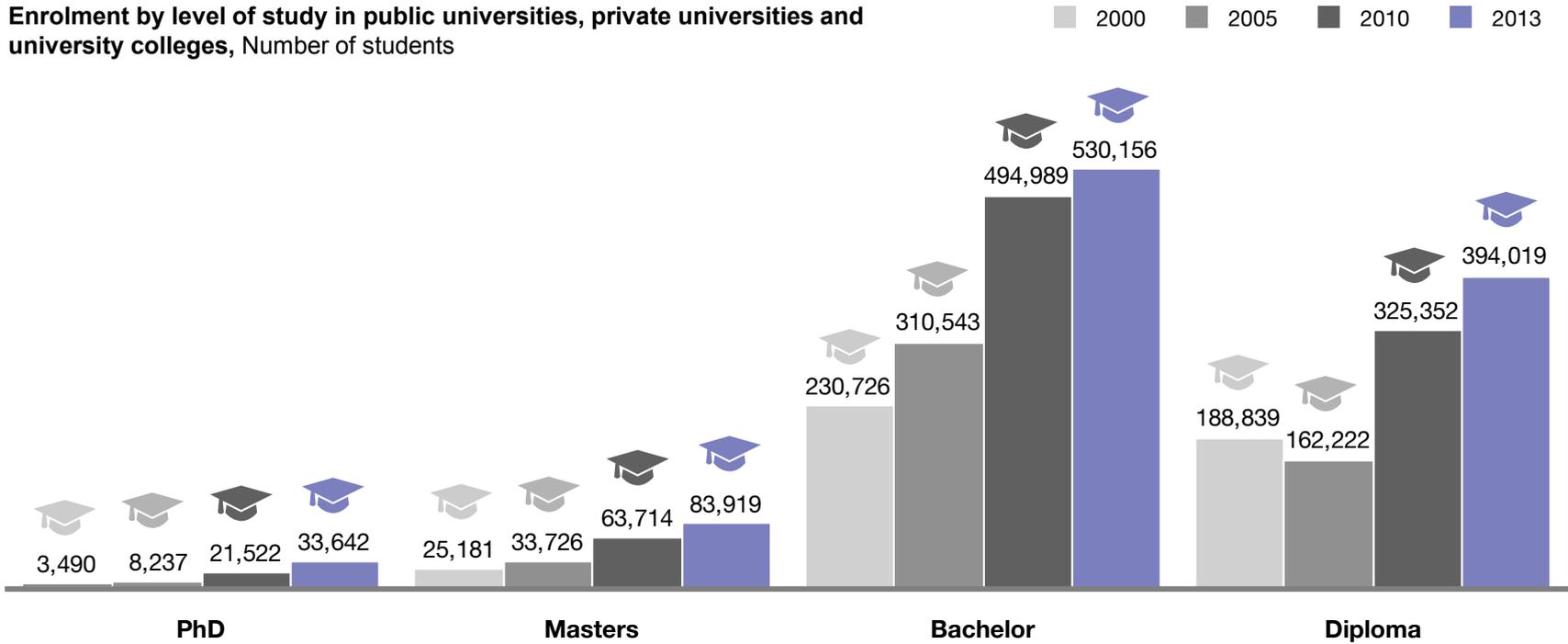


Exhibit 5-6

**Share of enrolment in public universities, private universities and university colleges, Percentage**

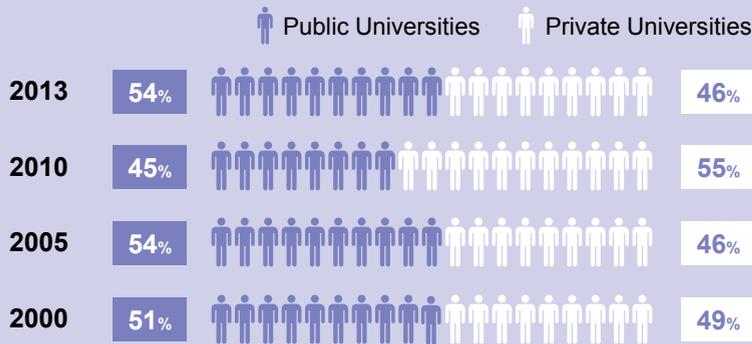


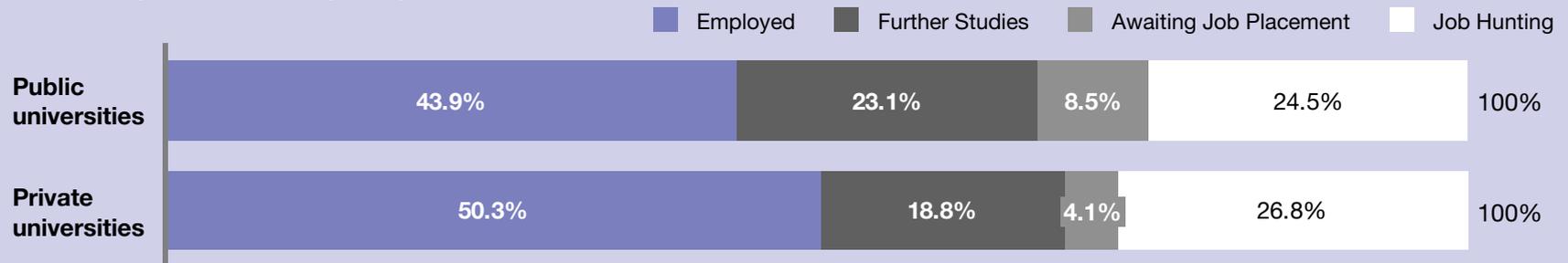
Exhibit 5-7

**Cumulative Grade Point Average (CGPA) at bachelor level in public universities, Number of graduates**



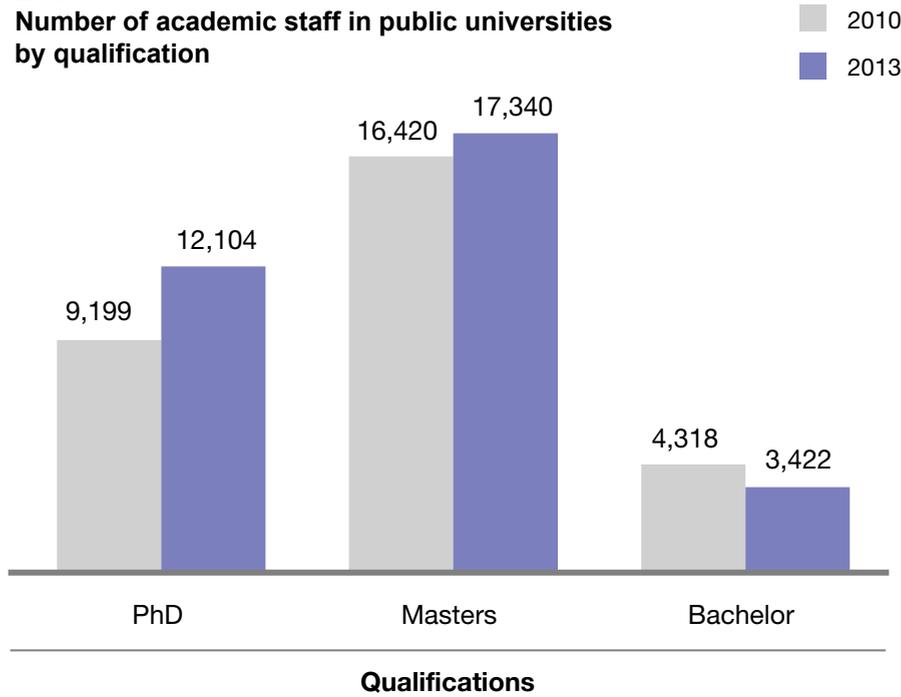
Exhibit 5-8

**Results of graduates employability tracer studies<sup>1</sup> in 2013**

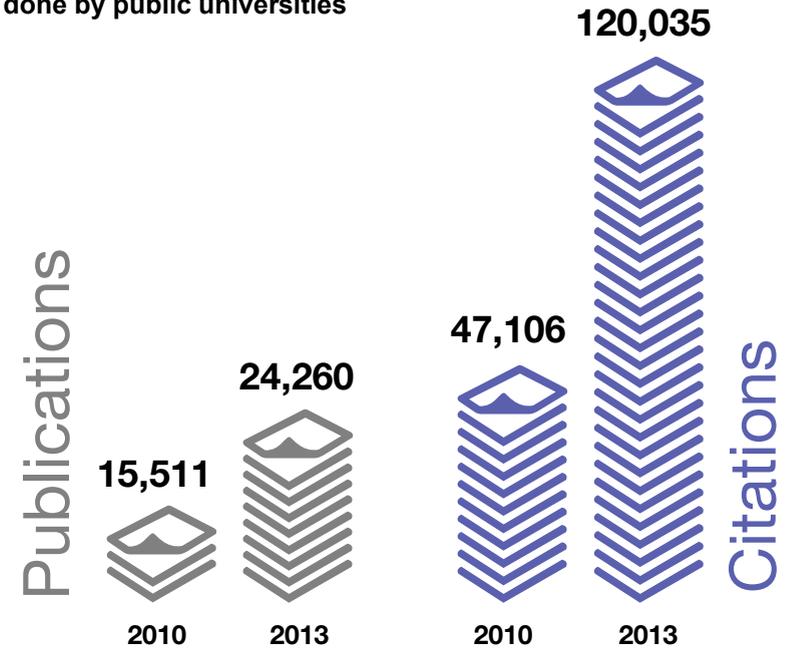


<sup>1</sup>The Graduate Employability Tracer Study is an annual survey done by MoE to understand the status of employment for graduates within three to six months of graduation. Graduate status is classified into four categories: employed (including self-employed), further study (including upskilling), awaiting job placement and job hunting

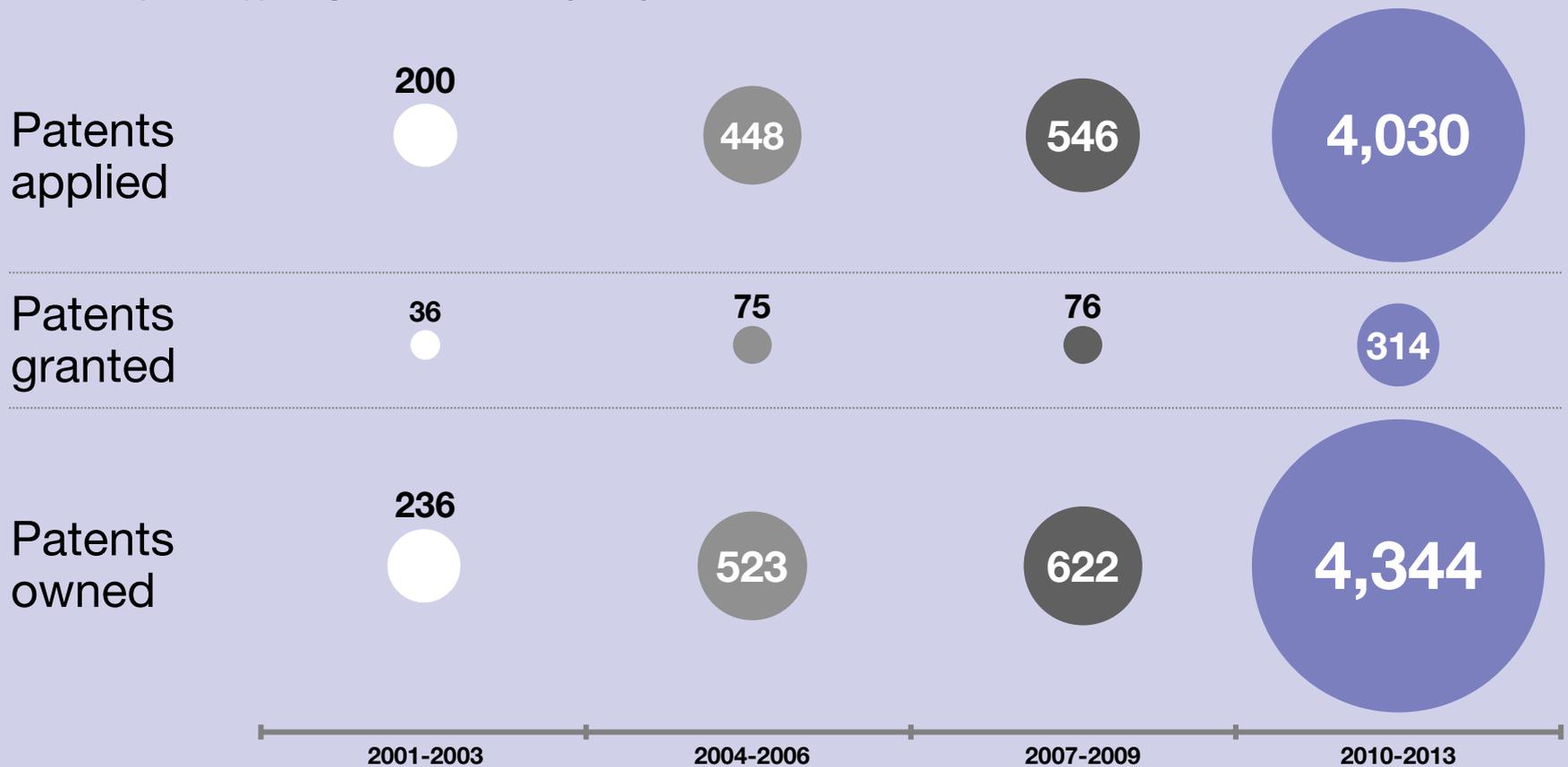
**Exhibit 5-9**  
**Number of academic staff in public universities by qualification**



**Exhibit 5-10**  
**Number of citations and publications from research done by public universities**



**Exhibit 5-11**  
**Number of patents applied, granted and owned by Malaysian Research Universities**



# Summary of focus areas

## Eleventh Malaysia Plan, 2016-2020

### Improving labour market efficiency to accelerate economic growth

Improving labour productivity and wages through the shift to high skilled jobs

Enhancing labour market operations to maximise efficiency and effectiveness

Improving management of foreign workers

### Transforming TVET to meet industry demand

Strengthening the governance of TVET for better management

Enhancing quality and delivery of TVET programmes to improve graduate employability

Rebranding TVET to increase its attractiveness

### Improving the quality of education for better student outcomes and institutional excellence

Enhancing access and quality to improve student outcomes

Enhancing governance and stakeholder partnerships for better school support

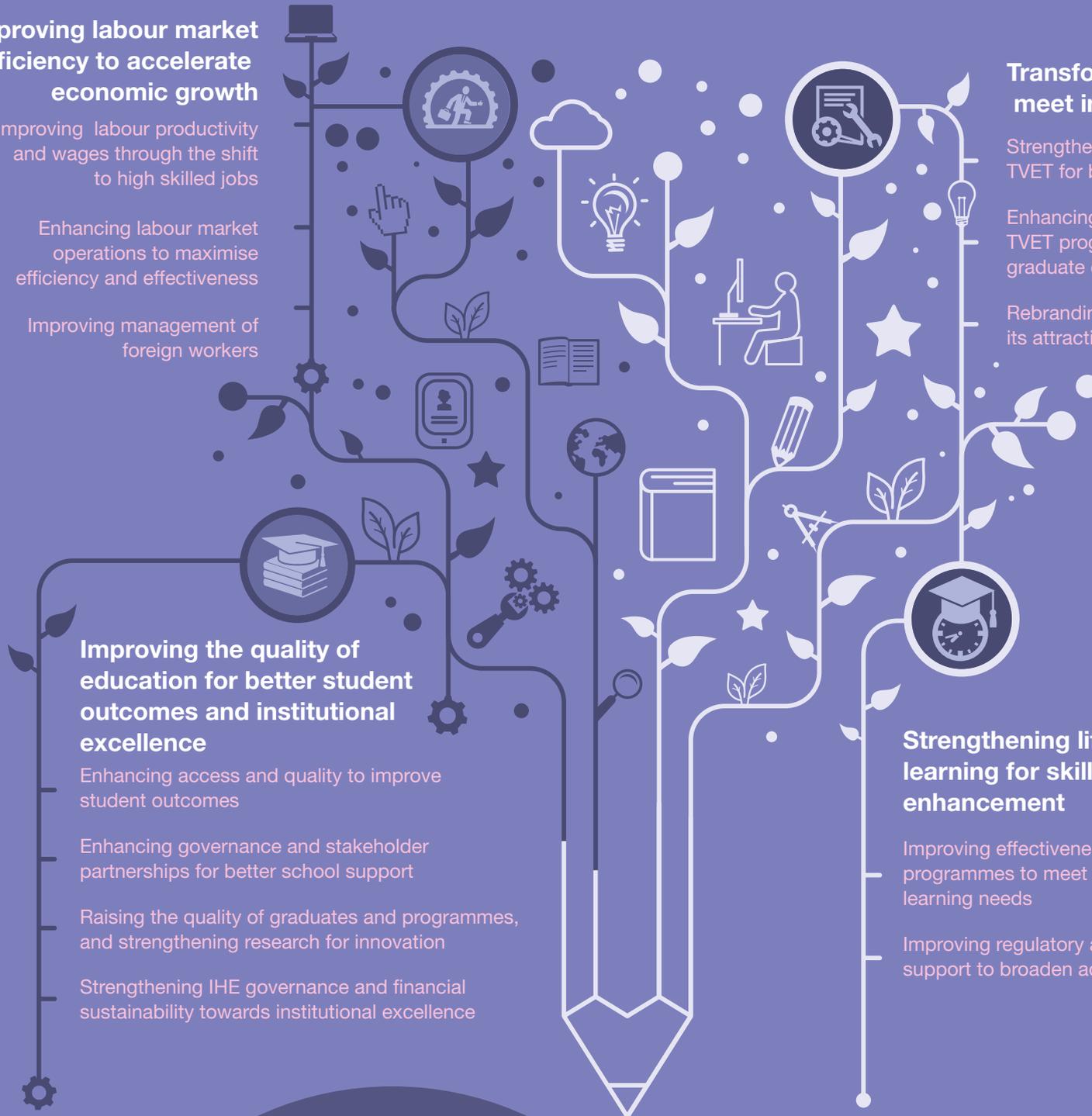
Raising the quality of graduates and programmes, and strengthening research for innovation

Strengthening IHE governance and financial sustainability towards institutional excellence

### Strengthening lifelong learning for skills enhancement

Improving effectiveness of programmes to meet learning needs

Improving regulatory and funding support to broaden access



# SELECTED OUTCOMES



Improving labour market efficiency to accelerate economic growth

**3.7%**

Per annum labour productivity target in the Eleventh Plan, compared with 2.6% in the Tenth Plan

Transforming TVET to meet industry demand

**225,000**

Intake of SPM leavers to TVET programmes; an increase from 164,000 in 2013

Strengthening lifelong learning for skills enhancement

**58%**

Increase in number of employees that will benefit from expansion of the HRDF Act; from 1.77 million employees in 2014 to 2.8 million in 2020

Improving the quality of education for better student outcomes and institutional excellence



Malaysia aims to be at least on par with the international average in PISA and TIMSS assessments

**TOP 100**

2 universities in Top 100 of the QS World University Rankings

**40%**

Compensation of employees to GDP in 2020; an increase from 33.6% in 2013

**RM 2,500**

Monthly median wage in 2020; an increase from RM1,575 in 2014

**100%**

Student enrolment from preschool to upper secondary



# Moving forward

## Eleventh Malaysia Plan, 2016-2020

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The Eleventh Malaysia Plan will produce a fundamental shift in how the system currently operates in order to develop world-class talent that can thrive in a globally competitive economy.

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Malaysia aspires to become an advanced and inclusive nation by 2020. To realise this, Malaysia will require human capital with the knowledge and skills, as well as ethics and morality, to drive inclusive and sustainable economic growth. The initiatives under the Eleventh Plan are projected to generate approximately 1.5 million new jobs by 2020, of which 60% require TVET-related skills. Accordingly, the Government will invest in four focus areas:

- Focus area A: Improving labour market efficiency to accelerate economic growth
- Focus area B: Transforming TVET to meet industry demand
- Focus area C: Strengthening lifelong learning for skills enhancement
- Focus area D: Improving the quality of education for better student outcomes and institutional excellence

Collectively, the changes arising from these focus areas will produce a fundamental shift in how the system currently operates. Labour market policies will focus on improving labour productivity. The existing workforce will move from a world where learning only happens during one's youth, to one where every person has the opportunity to continuously enrich and develop themselves. TVET will shift from being government-driven to one that enables industry-led programmes and interventions. Above all, the quality of education will be raised to develop talent with both the knowledge and skills, and ethics and morality, to thrive in a globally competitive and ever-changing world. Eight headline outcome targets have been set as a benchmark of success. These targets will constantly be tracked and monitored to evaluate their progress.

To drive the human capital development agenda during the Eleventh Plan, the Government will establish a high-powered National Human Capital Development Council (NHCDC). The Council will not only be composed of Ministers and implementers from relevant agencies, but also major private sector players and industry representatives. The Council is similar to the existing Economic Council and will set overall human capital development policy direction, determine initiative priorities, and integrate action across public, private, and social sector stakeholders.



## Focus area A

# Improving labour market efficiency to accelerate economic growth

An efficient and flexible labour market is critical to ensure that the supply of talent matches industry demand, minimise underutilisation of skills, and enable inclusive and sustainable growth. On that account, the Government aims to improve the efficiency and operations of the labour market. To achieve this, three strategies will be implemented:

- **Strategy A1: Improving labour productivity and wages through the shift to high-skilled jobs.** Key measures include the wider adoption of the Productivity Linked Wage System (PLWS), the shift from low- to high-skilled jobs, and the reduction of existing wage gaps;
- **Strategy A2: Enhancing labour market operations to maximise efficiency and effectiveness.** Measures include regulatory reform, more integrated information to enhance decision making, closer integration with industry, and targeted programmes for youth and women; and
- **Strategy A3: Improving management of foreign workers** by reducing the nation's reliance on low-skilled foreign workers and streamlining recruitment as well as immigration processes.

## Strategy A1

### Improving labour productivity and wages through the shift to high-skilled jobs

#### Improving labour productivity

Labour productivity refers to the amount of output produced per worker and is an important measure of the effectiveness and efficiency of the

nation's workforce and economy. Labour productivity is targeted to grow at 3.7% per annum by the end of the Eleventh Plan, compared with 2.3% during the Tenth Plan. The services and manufacturing sectors are targeted to register the highest productivity growth at 4.1% and 3.0% respectively. To complement this growth, the Government will further encourage the implementation of performance-related pay schemes through wider industry implementation of the PLWS. PLWS ensures that wage increases commensurate with higher productivity, thus enhancing competitiveness at the firm level. By the end of the Eleventh Plan, 85,000 employers are expected to adopt PLWS compared with 76,000 in 2013, which will benefit about 3.7 million employees. In addition, continuous upskilling and reskilling of the existing workforce will contribute to productivity growth.

#### Creating more high-skilled jobs

Skilled workers are projected to comprise 35% of the workforce by 2020, as shown in Exhibit 5-12. Existing industries will be encouraged to move up the value chain by investing in high value added activities that require skilled workers. Additionally, the Government will be more selective in attracting new investments, favouring those with knowledge-intensive activities.

#### Reducing wage gaps to improve equity

The Government aims to increase the compensation of employees to GDP from 33.6% in 2013 to 40% in 2020, to be on the same level as other middle- and high-income countries. Compensation of employees is expected to increase following greater compliance with minimum wage requirements, upward revisions in minimum wages linked to improved productivity, and enhanced recognition of prior learning (RPL). The recognition of technologists<sup>6</sup> as professionals through the establishment of the Malaysia Board of Technologists (MBOT) will

<sup>6</sup> The Ministry of Science, Technology and Innovation (MOSTI) defines "technologists" as TVET graduates and practitioners with a minimum degree in engineering technology and technicians with a minimum diploma qualification.

also improve wages of TVET graduates. MBOT will serve as a statutory body to regulate, promote, and develop the technologist profession in Malaysia. These measures are expected to contribute to an increase in the monthly median wage from RM1,575 in 2014 to RM2,500 in 2020.

### Introducing wage index as a guide for fair and transparent compensation

The Government will establish a National Wage Index (NWI) that will serve as a guide and benchmark for employers in determining the right wage level for employees that is in accordance with their qualifications, skills, and productivity. The NWI will be developed by the MoHR in collaboration with related government agencies, and will rely on consolidated wage data from multiple sources.

## Strategy A2

### Enhancing labour market operations to maximise efficiency and effectiveness

#### Improving labour market information for informed decision-making

The LMIDW will be updated to include more demand-based information such as job openings, employment projections, and salaries to provide better insights into the demands of industry. The functionality and user friendliness of LMIDW will also be enhanced. For example, users will be able to generate in-depth and visual analytics of the labour market from the data. These enhancements will provide insightful

analysis of labour market trends and emerging human capital issues, which will in turn enable better human capital planning and effective policy formulation.

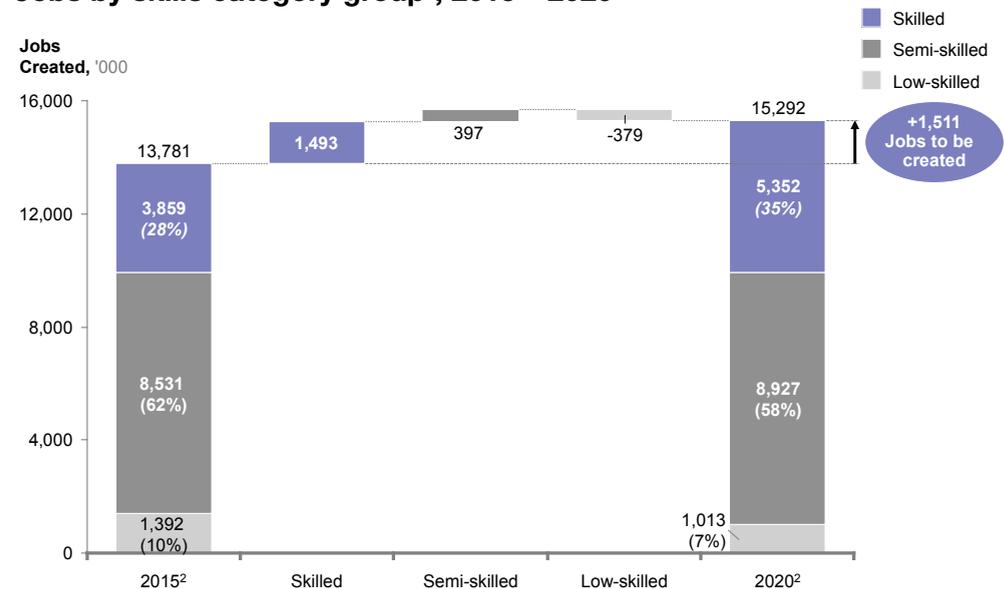
### Minimising mismatch in the labour market

An Industry Skills Committee (ISC) will be established to serve as a platform for coordinated engagement of industry players, so as to gather information on the requirements of industry. The Committee will be jointly chaired by the Ministry of International Trade and Industry (MITI) and a reputable industry captain. To support the ISC, Industry Working Groups (IWG) will be established to identify specific human capital requirements beginning with 11 economic sectors. The Critical Skills Gap Committee under the joint purview of Talent Corporation and ILMIA will also be established to assist the ISC in identifying critical skills gaps, particularly in strategic sectors, for future human capital planning.

Industry Centres of Excellence (ICoE) and Academia-Industry Graduate Development Centres (AIGDC) in universities will also help address mismatches in the labour market. Lessons from ICoE's and AIGDC's collaboration with

Exhibit 5-12

### Jobs by skills category group<sup>1</sup>, 2015 – 2020



<sup>1</sup> The three major occupational groups are skilled workers, semi-skilled and low-skilled. Skilled workers comprise managers, professionals and technicians and associate professionals. Semi-skilled workers comprise clerical support workers, service and sales workers, skilled agricultural, forestry and fishery workers, craft and related trade workers, and plant and machine operators and assemblers. Low skilled workers comprise elementary occupations.

<sup>2</sup> 2015 figures are an estimation while 2020 are forecasted

Source: Department of Statistics Malaysia

industry will be used for the development of industry-relevant curricula. Currently, there are 10 ICoEs that focus on strategic sectors such as automotive, biotechnology and health services.

### Addressing youth unemployment

Although youth unemployment remains lower than ASEAN and world averages, the Government will continue to ensure all youth have access to training opportunities before joining the labour market. Youth in the labour market will also be given opportunities for upskilling, to equip them with better skills, and enable them to command higher salaries. Youth of schooling age, particularly those in upper secondary, will be encouraged to complete tertiary education before joining the labour force. Efforts to prepare youth for employment and secure job placements will be intensified through programmes such as SKK1M, NDTs and 1Malaysia Skills Training and Enhancement for the Rakyat (1MASTER).

### Raising female participation to increase inclusiveness

Female participation in the labour market will be further increased through more family-friendly employment strategies. These include providing better access to quality childcare facilities, flexible working hours, work-from-home options, and employment re-entry opportunities. For example, the Government will widen access to jobs through the 1Malaysia Support for Housewives and Flexiworklife programmes. Women will also be encouraged to become entrepreneurs through programmes such as Azam Niaga, Women Entrepreneurial Incubator, and 1Nita.

### Enhancing legislation to meet labour market requirements

The MoHR will amend labour-related legislation such as the Employment Act, 1955, Trade Unions Act, 1959, and the Industrial Relations Act, 1967. These amendments will address the rigidity of existing dismissal processes, resolve overlapping and contradicting provisions, as well as increase flexibility in working hours and registration of trade union membership.

## Strategy A3

### Improving management of foreign workers

#### Reducing reliance on low-skilled foreign workers

A comprehensive immigration and employment policy for foreign workers will be formulated, taking into account the requirements of industry and the welfare of foreign workers. Heavy reliance on low-skilled foreign workers, particularly in labour-intensive activities will be addressed holistically. The proportion of foreign workers in the workforce is capped at 15% of total workforce in 2020. Greater automation especially in labour-intensive activities, as well as migration to knowledge-intensive activities will be encouraged in all sectors of the economy, particularly in the agriculture, manufacturing, and construction sectors, which currently employ more than 30% of foreign workers.

The levy system will also be improved to better regulate the entry of low-skilled foreign workers. This levy will be borne by employers and based on the ratio of foreign workers to total workers in a firm and the duration of employment. The levy will be increased gradually over time to increase its effectiveness.

#### Streamlining the recruitment process for foreign workers

The Government will streamline the recruitment of foreign workers by placing it under a single administration. The MoHR will assume the lead role in policy-making for foreign worker management. The Government will streamline recruitment processes at the One-stop Centre (OSC). The OSC will be responsible for determining the requirement of foreign workers by sector; verifying and approving applications for recruitment of foreign workers; monitoring and responding to all matters related to the welfare of foreign workers; and ensuring that foreign workers are employed in the approved sectors and firms. With the streamlining of OSC operations, the role of outsourcing companies and intermediaries will be eliminated.

The Government will introduce the strict liability concept whereby employers of foreign workers are fully responsible for their recruitment process and welfare. In addition, the Government will address the issue of illegal foreign workers through better management and effective enforcement initiatives.



## Focus area B

# Transforming TVET to meet industry demand

60% of jobs that will be created during the Eleventh Plan are projected to require TVET-related skills, thereby making TVET the most important avenue for increasing Malaysia's skilled human capital base. The Government will therefore intensify collaboration with industry to increase intake in TVET, improve the quality of programmes and institutions, and improve the sector's overall branding and profile. Collectively, these advancements will produce sufficiently skilled graduates and make TVET a pathway of choice. These outcomes will be realised through three strategies:

- **Strategy B1: Strengthening the governance of TVET for better management**, through the streamlining of the national qualification framework, and harmonising of various rating systems across both private and public TVET institutions;
- **Strategy B2: Enhancing quality and delivery of TVET programmes to improve graduate employability**, by enabling industries to lead curriculum development, eliminating the duplication of programmes and resources, enhancing cost efficiency, and increasing enrolment; and
- **Strategy B3: Rebranding TVET to increase its attractiveness.** This will be achieved through promotional activities highlighting TVET as an attractive career choice.

### Strategy B1

## Strengthening the governance of TVET for better management

### Establishing a single system for accreditation

The current fragmented TVET sector will be consolidated through the establishment of a single system adopted by both MQA and DSD to facilitate better coordination and monitoring of the TVET sector. The

new system will accredit TVET programmes offered by both public and private TVET institutions based on the revised Malaysian Qualification Framework (MQF) set out in Exhibit 5-13. This in turn will allow mobility of students between and among all TVET institutions.

### Harmonising TVET institution rating systems to improve comparability

The Government will harmonise the various rating systems across private and public TVET institutions into a single system. This includes rating systems such as the star rating system adopted by DSD for private TVET institutions, as well as the Polytechnic Rating System (PolyRate) and Sistem Penarafan Kolej Komuniti (MySpeKK) for public TVET institutions. This unified system will rate the quality of institutions and programmes based on outcome indicators such as graduate employability and industry engagement. Institutions' performance on this rating system will be one of the factors used to determine allocation of funds for institutions.

### Strategy B2

## Enhancing quality and delivery of TVET programmes to improve graduate employability

### Enabling industry-led programmes to reduce skills mismatch

The ISC, in collaboration with industry players, will identify relevant competencies for each sector and sub-sector. New partnership models will enable industries to get involved at every step of the value chain, particularly in the design and delivery of the curriculum, to ensure it is more hands-on and up-to-date. This could include apprenticeships, internships, and work-based learning programmes. "Problem, Project, Production" learning modules which engage students in authentic, "real world" tasks intended to simulate actual workplace situations, will also be embedded in the curriculum to better prepare students for the working environment.

## Mainstreaming the National Dual Training System (NDTS)

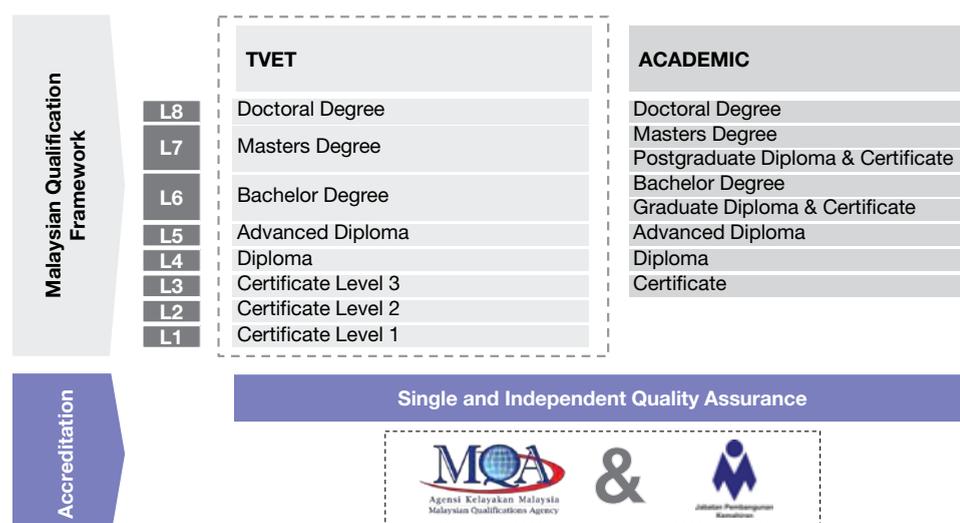
A concerted effort will be made to mainstream the NDTS to produce skilled TVET graduates demanded by industry. NDTS offers employees workplace-based training wherein 70% of the training takes place at the company and 30% at TVET institutions. The 1MASTER NDTS programme will be further expanded to support specific economic development areas and industry needs. For example, a 1MASTER NDTS programme was established to specifically address the human capital needs of the Iskandar Malaysia development corridor. A special NDTS for youth who have dropped out of the education system will also be expanded to provide training and certification that will enable them to secure better job opportunities. The NDTS will be expanded to involve more public and private institutions, and will also encourage increased participation from industry.

## Eliminating low-impact and overlapping programmes

Low-impact programmes that are not in demand by industry and that yield low graduate employability will be eliminated. The existing centralised system for tracer studies for public institutions will be upgraded and expanded to private institutions to enable comparisons of graduate employability. On top of these, more industry engagement in the form of scheduled dialogues will be conducted for continuous programme assessment and validation. Overlapping programmes among public institutions will be reduced by encouraging them to specialise and create Centres of Excellence in niche areas of expertise in order to optimise resources and produce better student outcomes.

Exhibit 5-13

## The revised Malaysian Qualification Framework



## Box 5-3

### Problem/Project/Production-based learning

Global economic challenges, rapid technology evolution, and the growth of the knowledge economy demand new ways of teaching and learning in order to produce talent with industry-valued skills such as creative and innovative problem solving. It will also be important to develop talent with a love of learning so that they will continuously seek out opportunities to improve themselves.

Problem/Project/Production based learning is an example of an innovative instructional approach in a Student-Centred Learning (SCL) environment that provides flexible guidance through problem solving, project work, and real life industrial activities (production). This model has been implemented in top universities across the world, such as University of Cologne-Germany, University of Aalborg-Denmark, University of Victoria-Australia, University of Stanford-USA, and University of Manchester-UK.

Problem / Project / Production Based Learning		
Exploring the problem to acquire and enhance knowledge, skills and attitudes	Applying range of knowledge, skills and attitudes to solve problems through projects	Experiencing real life industrial activities using multi-disciplinary knowledge, skills and attitudes
<b>PROBLEM</b>	<b>PROJECT</b>	<b>PRODUCTION</b>

Source: German-Malaysian Institute

# Game Changer

## Enabling Industry-led Technical and Vocational Education and Training

### Why is TVET important for Malaysia?

Under the Eleventh Plan, 60% of the 1.5 million jobs that will be created will require TVET-related skills. Meeting this demand will require Malaysia to increase its annual intake gradually from 164,000 in 2013 to 225,000 in 2020. Yet, the challenge is not merely about numbers. Industry feedback consistently reveals a disconnect between the knowledge, skills, and attitudes these graduates possess, and what is required in the workplace.

It will not be easy to resolve these quality and quantity concerns. The Malaysian TVET landscape is fragmented, with more than 1,000 public and private TVET institutions offering similar programmes of varying standards. Collaboration between industry and TVET providers rarely reaches the breadth and depth necessary to develop high quality programmes. Furthermore, TVET is still perceived as an unattractive pathway by many students.

This litany of challenges can be daunting. Therefore, getting the transformation right is more critical than ever as Malaysia enters the last leg of its journey towards Vision 2020.

### What would success look like?

An effective and efficient TVET sector is one where:

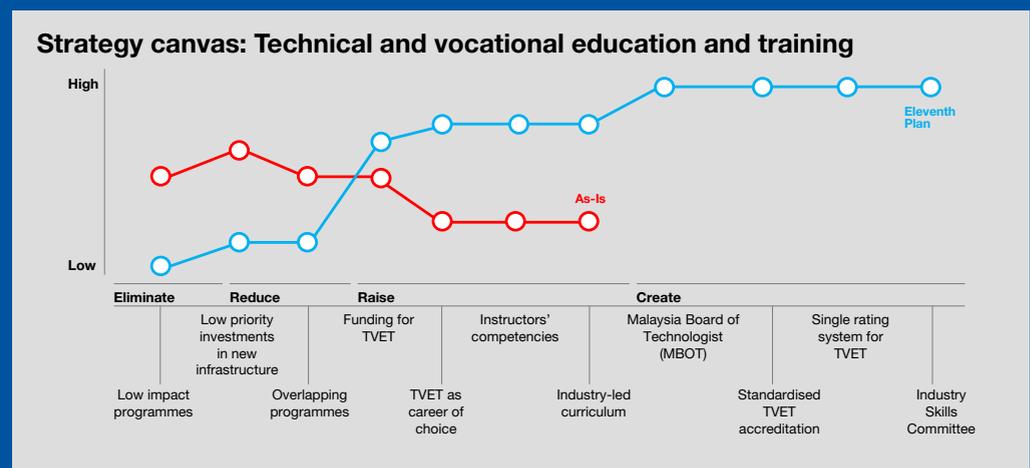
- Supply matches demand, and there are robust quality control mechanisms which ensure that all public and private institutions meet quality standards;

- Industry and TVET providers collaborate across the entire value chain from student recruitment, through to curriculum design, delivery, and job placement; and
- Students are well-informed of the opportunities that TVET can offer and view TVET as an attractive pathway. Students also have access to a variety of innovative, industry-led programmes that better prepares them for the workplace.

### How will this be achieved?

Achieving these aspirations will require harmonising and streamlining how the system currently operates to reduce fragmentation across the various public and private stakeholders. Furthermore, efforts will be made to encourage industry-led interventions and programmes as they are the stakeholders best placed to ensure that the supply of graduates meet their requirements. A summary of the major shifts that will be undertaken are set out on the right.

The strategy canvas below highlights areas that should be eliminated, reduced, raised or created for this game changer.



	From	To
Governance	<p>2 Accreditation Agencies (MQA and DSD) with different sets of qualifications</p> <p>Different quality rating systems for public and private TVET institutions, depending on which Ministry the institution is registered with</p>	<p>Single qualification system adopted by both MQA and DSD</p> <p>Single rating system for both public and private TVET institutions</p>
Programme delivery	<p>Design and delivery of curriculum led by individual TVET institutions or Government</p> <p>No specialisation among TVET institutions</p>	<p>Design and delivery of curriculum led by industry, in partnership with TVET institutions and Government</p> <p>Institutions to specialise in and create Centre of Excellence in niche areas of expertise</p>
Capacity	<p>164,000 intake per annum in 2013</p>	<p>225,000 intake per annum in 2020, by maximising use of existing institutions</p>
Profile	<p>Limited recognition and low premium</p>	<p>Career of choice for students</p>

### Optimising resources for better return on investment

The Government will prioritise improving existing institutions rather than investing in new ones. Similarly, the Government will prioritise buying places from quality private institutions rather than creating new programmes, and will rationalise poor performing institutions. This could be done, for example, by merging them with high performing institutions. Public and private TVET providers will be encouraged to share facilities, faculty and best practices, and to deliver their programmes in as cost-efficient a manner as possible.

### Linking funding to demand and performance

The SDF will continue to provide funding for students who pursue TVET programmes that are highly demanded by industry and delivered by TVET institutions with good performance ratings. The existing SDF loan mechanism for employee upskilling and reskilling will also be revamped to increase the number of recipients through a cost-sharing arrangement with industry. Fees in public TVET institutions will be standardised based on the type and level of programme.

### Developing high quality instructors to improve delivery

Professional development programmes for instructors will be improved by incorporating more industrial training and attachment programmes. A centralised repository of instructor profiles will be established to identify competency gaps and enable the development of an effective training roadmap. Besides these, more industry experts including retired industry practitioners will be encouraged to serve as TVET instructors through the provision of attractive remuneration packages.

## Strategy B3

### Rebranding TVET to increase its attractiveness

#### Promoting TVET as a pathway of choice

SkillsMalaysia will drive a series of targeted media campaigns to educate students and families on the attractive career and entrepreneurship opportunities that TVET programmes can offer. Such promotional efforts will offer students meaningful career guidance and showcase success stories. The MySkills Competition and International Skills Competition for TVET students will also be used as platforms to boost the image of TVET.

#### Recognising technologists as professionals

MBOT will determine and govern the ethics and conduct of the profession as well as provide guidance and professional development programmes for career advancement. Through these activities, MBOT will elevate the role and recognition of technologists.



## Focus area C

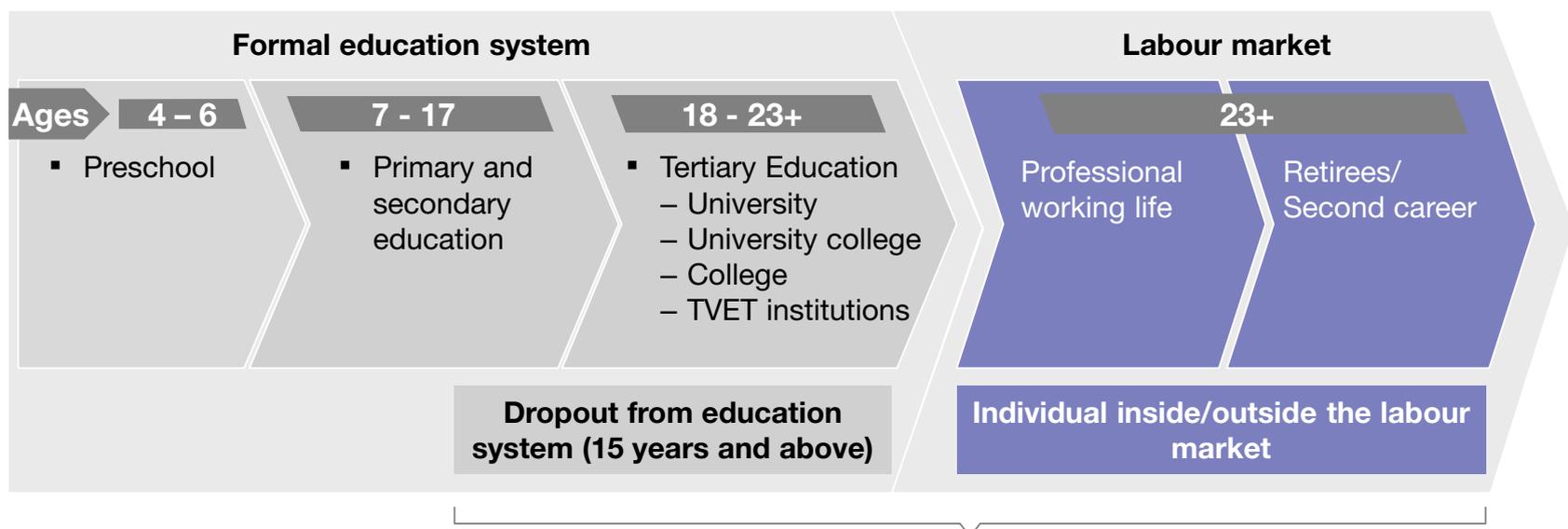
# Strengthening lifelong learning for skills enhancement

Lifelong learning (LLL) is essential in enabling Malaysians to continuously reskill and upskill themselves to meet the ever changing demands of the labour market. It involves Malaysians 15 years old and above, who have dropped out of formal education and, those who are currently employed, unemployed, or retired, as shown in Exhibit 5-15. The Government will widen access to LLL and raise the quality of existing programmes, with the goal of making LLL a way of life for all Malaysians. These aspirations will be achieved through two strategies:

- **Strategy C1: Improving effectiveness of programmes to meet learning needs**, by increasing the use of industry-based training programmes, streamlining community-based programmes, and introducing entrepreneurship training in high-value economic sectors; and
- **Strategy C2: Improving regulatory and funding support to broaden access** through the enhancement of existing frameworks for recognising prior learning, and expanded HRDF support for new sectors and target groups.

Exhibit 5-15

### Lifelong learning concept



### Eleventh Plan: Lifelong learning

- Lifelong learning refers to Malaysians learning from cradle to grave. It encompasses the entire lifetime of the individual, from early childhood care and education to post-retirement.
- The Eleventh Plan focuses on Malaysians 15 years old and above, who have dropped out of formal education, and those who are currently employed, unemployed, or retired.

## Strategy C1

### Improving effectiveness of programmes to meet learning needs

#### Enhancing industry-based programmes to upskill employees

Industry-based upskilling programmes will be strengthened to upgrade the skills of existing employees. For example, the CIDB and the Malaysian Automotive Institute (MAI) will initiate industry-based training in the construction and automotive industries. The Malaysian Meister Programme (MMP), which is adapted from the German-Meister Programme, will be introduced to provide skills enhancement training for experienced employees.

#### Developing entrepreneurs for high-income economic sectors

Agencies such as Institut Keusahawanan Negara (INSKEN), Majlis Amanah Rakyat (MARA), and Malaysian Global Innovation and Creativity Centre (MaGIC) will strengthen entrepreneurship related training programmes for high-income economic sectors in collaboration with industry. MaGIC, through its Go2Market programme in partnership with the Stanford Graduate School of Business will help innovators incubate and set up successful businesses. Additionally, the Government will nurture an entrepreneurial spirit in youth from an early age, through the formal curriculum in schools, IHEs, TVET institutions, as well as through extracurricular activities.

#### Enriching communities through LLL

A task force headed by the Department of Community College will be formed to enhance LLL curricula, reduce redundancies, and optimise resources at the community level. The enhanced curricula will emphasise industry relevant skills as well as inculcate positive values. The portfolio of programmes offered by relevant agencies will be reviewed to ensure relevance to the specific needs of the community it serves, with training being delivered in existing facilities.

## Strategy C2

### Improving regulatory and funding support to broaden access

#### Expanding Human Resources Development Fund (HRDF) Act coverage

The coverage of the HRDF Act, 2001, will be expanded to include more subsectors under the services and agriculture sectors. This will increase the number of employees that will be eligible for training under HRDF from 1.77 million in 2014 to 2.8 million in 2020 which is an increase of 58%. HRDF will also collaborate with SME Corp to provide training to SMEs not covered under the HRDF Act. 50,000 SME employees are projected to benefit from these training programmes.

#### Recognising experiential/prior learning

The Recognition of Prior Learning (RPL) programme under the DSD and Accreditation of Prior Experiential Learning (APEL) under the MQA will be enhanced to make it easier for employees to continue their education. The RPL is a programme designed to recognise employees' experience and expertise for certification. The APEL enables knowledge and skills acquired through formal education and working experience to count towards the completion of their studies in IHEs. In addition, the Government will encourage higher enrolment into the MyPhD-Industry programme.

#### Supporting pre-employment training through the Future Workers Training scheme

The Future Workers Training (FWT) Scheme will be established under the HRDF to promote pre-employment training focusing on emerging technologies. Existing pre-employment training programmes, such as the Industrial Skills Enhancement Programme (INSEP) and the Workers Technical Transformation Programme (WTTP) will be consolidated as part of the FWT Scheme.



## Focus area D

# Improving the quality of education for better student outcomes and institutional excellence

The education system plays a crucial role in supplying Malaysia with world class talent as it is the primary factor for the development of knowledge, skills, and attitudes during one's youth. The Government aims to produce future leaders with the knowledge and skills, and ethics and morality, that will propel Malaysia to even greater heights. This aim will be realised through an integrated approach that includes improving the quality of teachers and academic staff, earned autonomy for IHEs and schools, and a more efficient use of public resources. Four strategies have been identified:

### Preschool to post-secondary

- **Strategy D1: Enhancing access and quality to improve student outcomes** through a range of measures such as better quality early childhood care and education (ECCE), professional development of teachers and school leaders, and the provision of different schooling models to meet the needs of specific student groups;
- **Strategy D2: Enhancing governance and stakeholder partnerships for better school support** by empowering Jabatan Pendidikan Negeri (JPN) and Pejabat Pendidikan Daerah (PPD) to provide more instructional support to schools, and engaging the community and private sector as partners in the education transformation journey;

### Higher education:

- **Strategy D3: Raising the quality of graduates and programmes, and strengthening research for innovation,** through measures such as embedding soft and entrepreneurial skills in the curriculum; collaborating with industry in the design and delivery of programmes; enhancing the quality of research; strengthening the role of IHEs as a conduit for innovation and as solution providers to industry and community; and launching massive open online courses (MOOCs) in niche areas of expertise; and
- **Strategy D4: Strengthening IHE governance and financial sustainability towards institutional excellence.** Measures include empowering public universities through earned autonomy within the regulatory framework, linking government funding to performance and encouraging public universities to diversify their funding sources.

Box 5-4

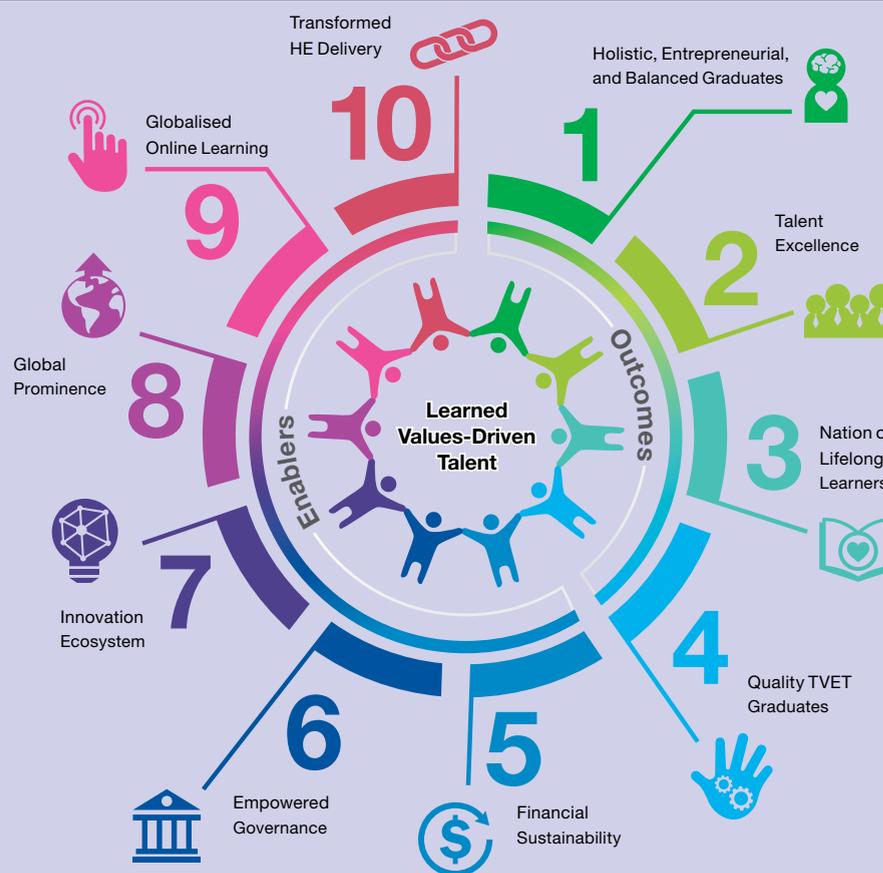
**Malaysia Education Blueprint 2015-2025 (Higher Education)**

In 2015, the Government launched the Malaysia Education Blueprint 2015-2025 (Higher Education) or MEB (HE), outlining a comprehensive transformation programme for the higher education system. As with the MEB, the Government aims to improve system outcomes on the dimensions of access, quality, equity, unity, and efficiency. From a student outcome perspective, the vision is to develop holistic, entrepreneurial, and balanced graduates with the relevant knowledge and skills (*ilmu*), and ethics and morality (*akhlak*) to meet the needs of Malaysia’s growing economy and to be competitive internationally.

To achieve these system and student aspirations, the MEB (HE) outlines 10 shifts that will spur continued excellence. The first four Shifts focus on talent outcomes for key stakeholders in the higher education system. The other six shifts focus on enablers, covering critical components of higher education such as funding, innovation, governance, online learning, global prominence, and delivery.

Source: Ministry of Education

Exhibit 5-16  
**10 Shifts of the MEB (HE)**



The implementation of the MEB (HE) will result in major shifts in the way the higher education system operates, as shown below:

<b>From</b>	Job seekers	Focus on university education	Focus on inputs	Highly centralised	Reliance on government resources	Mass production delivery model	Separation of private and public institutions
<b>To</b>	Job creators and balanced citizens with entrepreneurial mindsets	Academic and TVET pathways equally valued and cultivated	Focus on outcomes	A model of earned autonomy for institutions	All stakeholders have shared responsibility for higher education resources	Technology-enabled innovations to deliver and tailor education for all students	Harmonised Higher Learning Institutions

## Strategy D1

### Enhancing access and quality to improve student outcomes

#### Improving the quality of early childhood care and education (ECCE)

The Government will improve the quality of teachers and caregivers through specialised training programmes, as well as require all teachers working in public preschools to have a minimum diploma level qualification. Measures to ensure the affordability of and accessibility to childcare centres will be explored by Jabatan Kebajikan Masyarakat (JKM) as the lead agency for ECCE. This includes collaborating with other private and public organisations to promote the establishment of more childcare centres at the workplace. The Government will also expand performance monitoring mechanisms to all preschools, and identify gifted and talented children through the PERMATA programme to enable their potential to be nurtured as early as possible.

#### Enhancing the curriculum to build 21st century skills

The school curriculum will embed knowledge, skills, and values that are relevant to the 21st century. Students will be proficient in Bahasa Melayu and English, and be encouraged to learn a third language. Teachers will embed HOTS in their lessons to develop critical, creative, and innovative thinkers. STEM (science, technology, engineering, and mathematics) education will continue to be reinforced through enquiry-based and hands-on learning opportunities. Participation in the TIMSS assessment will be extended to primary school students to provide a basis for earlier interventions.

#### Using online learning to widen access and improve teaching and learning

The MoE will strengthen the use of the 1BestariNet Virtual Learning Environment (VLE) platform in schools. A digital content development roadmap will be formulated to ensure that more resources are developed – from digital textbooks to adaptive learning programmes – to support online learning and supplement the existing 24,000 resources. The MoE will use these resources to deliver virtual lessons and offer more personalised learning opportunities to students. These

resources will be particularly useful for students in under-enrolled rural schools and gifted students. The MoE will collaborate with the Malaysian Communications and Multimedia Commission (MCMC) to achieve these aims.

#### Improving professional development programmes for teachers and school leaders

A comprehensive, competency-based professional development programme will be rolled out for in-service teachers and school leaders. These programmes will be delivered by a pool of skilled master trainers and conducted in selected institutes of teacher education (ITE) and Pusat Latihan Guru dalam Perkhidmatan (PLGDP), based on teacher and school needs. In addition, each PLGDP will specialise in specific topics: STEM for PLGDP Northern Zone, educational technology for PLGDP Central Zone, language and LLL for PLGDP Eastern Zone, and social science and humanities for PLGDP Southern Zone. This means that each selected ITE and PLGDP will focus on training, research, development, and innovation activities in their niche areas of expertise. The quality of ITE lecturers and the pre-service teacher training curriculum will also be continuously enhanced.

#### Providing schooling options for different student groups

The Government is committed to providing a range of national schooling options that meets the needs of different student groups. The K9 school concept, which offers primary and lower secondary education under one roof, will be expanded to improve enrolment, especially among Orang Asli children. The K9 school curriculum will also emphasise the teaching and learning of the Integrated Living Skills subject and Basic Vocational Education. More schools will be equipped with facilities to cater for students with special education needs. To cater to rising demand for religious education, the religious stream classes or Kelas Aliran Agama (KAA) will be expanded in primary and secondary schools. The number of registered Sekolah Agama Bantuan Kerajaan (SABK) will also be increased, with a target of registering at least 10 private and state religious schools every year over the next five years.

## Strategy D2

### Enhancing governance and stakeholder partnerships for better school support

#### Reducing centralised administration of schools by empowering JPN and PPD

The Government will empower the Jabatan Pendidikan Negeri (JPN) or State Education Department and Pejabat Pendidikan Daerah (PPD) or District Education Office by devolving greater decision making rights to them. JPNs will focus on planning and coordinating curriculum implementation, and providing a shared service centre focused on administrative operations to PPDs. PPDs will provide limited administrative support to schools, focusing instead on providing instructional support to teachers and principals. PPDs will coach, mentor, and monitor performance regularly to ensure that all schools move up to better bands and no school remains in Band 6 or 7.

#### Strengthening community support for education

The Parent-Teacher Association (PTA) will drive school-level engagements with the community, private sector, non-governmental organisations, and other education providers, particularly with regard to securing additional expertise and funds. This will enable the creation of a holistic ecosystem that supports student learning. The Trust School concept, a public-private partnership model, will be expanded to at least 90 schools by 2020. Based on the performance of these Trust Schools, the MoE will also identify best practices that can be used to improve teaching and learning in other schools.

Additionally, the MoE will collaborate with other relevant agencies and communities to implement an integrated approach to reduce dropout rates from preschool to upper secondary so as to ensure 100% enrolment by 2020. Collaborative efforts will be established with local authorities and community leaders to trace children who have never attended school or who have dropped out. Students who are at risk of dropping out will be identified and intervention programmes to retain them in schools will be implemented.

## Strategy D3

### Raising the quality of graduates and programmes, and strengthening research for innovation

#### Developing holistic, entrepreneurial, and balanced graduates

Entrepreneurial skills will be embedded across the curriculum to instil a “job creator” mindset in all graduates. Public universities will be encouraged to increase the practical component in entrepreneurship courses, introduce entrepreneurship minors in academic programmes, and emphasise entrepreneurship education for students in professional courses such as engineering, pharmacy, and medicine. Other vital student attributes such as language proficiency, leadership skills, and ethics and spirituality will also be embedded across the curriculum and assessed through an integrated cumulative grade point average. To improve English proficiency among graduates in public universities, students will be required to improve their performance in the Malaysia University English Test (MUET) by at least one band upon graduation.

#### Aligning curriculum with industry needs to prevent skills mismatch

IHEs will periodically and systematically revise their curriculum to keep abreast of changing industry needs. This revision, as well as the development of any new programmes will be done in close collaboration with industry. Programme offerings that are irrelevant to industry will be eliminated. Industrial training for students will be made compulsory and its duration will be extended to better prepare them for entry into the workforce. Teaching staff will also be given the opportunity to update their knowledge and skills through industry attachments. IHEs will also recruit more industry practitioners as faculty members.

### **Creating massive open online courses for broader access and visibility**

MOOCs are the next frontier for online learning. MOOCs will increase access, lower the cost of delivery, bring Malaysian expertise to the world, and enhance the branding and visibility of Malaysian IHEs. The Government will launch MOOCs in niche areas of expertise for Malaysia, make online learning an integral component of all teaching and learning, and support eligible IHEs in establishing the required cyber infrastructure in areas where none exist yet.

### **Improving research, development, and commercialisation activities to accelerate innovation**

The Government will facilitate the development of innovation ecosystems in selected strategic areas that are critical to the nation's economic growth. IHEs will be encouraged to partner with industry, government and local communities to incubate, develop, and commercialise ideas and to establish supporting systems such as technology transfer offices and mechanisms for co-utilisation of facilities. IHEs will also be encouraged to strengthen their role as a conduit for innovation and as solution providers for other stakeholders. The Government will in turn play a catalytic role in securing investments from the private sector through platforms like the Private-Public Research Network.

### **Enhancing the global prominence of Malaysia as an education hub**

The branding of Malaysian IHEs will be reinforced in strategic markets such as Southeast Asia, Middle East and Central Asia. This will be done by intensifying the promotion, marketing and value proposition of IHEs, increasing the number of quality international students, strengthening global networking, and gaining international recognition for specialisations and niches areas of expertise.

## **Strategy D4**

### **Strengthening IHE governance and financial sustainability towards institutional excellence**

#### **Empowering IHEs through earned autonomy within the regulatory framework**

The role of MoE will be transformed from that of a tight controller to a regulator and policy-maker by empowering public universities with greater decision rights. Public universities will operate freely within the regulatory framework established by the Government with strong governance structures, clear decision rights, and effective stakeholder management. These enhanced freedoms will be balanced by the right internal capabilities and with appropriate accountability mechanisms. For example, public universities will have the freedom to establish multi-track career pathways for lecturers, researchers, practitioners, and institutional leaders.

#### **Reducing dependency on government funding with diversified income sources**

The Government will revise the funding formulae for public universities by replacing block grants with performance-linked and per student funding, and implementing performance contracts. Public universities will be encouraged to diversify revenue sources and implement cost optimisation measures. Reform efforts by Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN) will be intensified further to address issues of sustainability, equitable disbursement, and operational efficiencies. All applications and approvals will be evaluated based on household income and the databases of e-Kasih and Bantuan Rakyat 1 Malaysia (BR1M). PTPTN will also manage educational financing services for other agencies to increase revenue and lower its own operational cost.

# Conclusion

The development of highly skilled human capital is essential to helping Malaysia make the shift towards higher-value and knowledge-intensive activities which are the hallmarks of an advanced nation. Investments in human capital are also vital to the improvement of personal wellbeing due to its many socio-economic benefits. To that end, under the Eleventh Plan, the Government will improve the efficiency of the labour market to accelerate economic growth, enable industry-led TVET to meet industry demands, expand lifelong learning for continuous upskilling, and improve the quality of the education system for better student outcomes.

The end vision is of a system wherein every Malaysian is able to access good quality education—whether in a TVET or academic pathway—that fosters the knowledge and skills, and ethics and morality, that they will need to navigate the challenges and opportunities of the globalised economy. The presence of a more efficient labour market will lead to closer alignment of workforce supply and demand, thereby enabling every Malaysian to benefit from the nation's growth. Ongoing opportunities for upskilling and reskilling will also allow Malaysians to stay relevant in their chosen fields or forge new paths for themselves. Collectively, these individuals will help Malaysia emerge as an advanced and inclusive nation by 2020.



# Pursuing green growth for sustainability and resilience



## **Overview**

### **Highlights Tenth Malaysia Plan, 2011-2015: Achievements**

#### **Looking back Tenth Malaysia Plan, 2011-2015: Progress**

Climate mitigation: reducing Malaysia's carbon footprint

Climate adaptation: protecting the nation from the impact of climate change

Enhancing conservation of the nation's ecological assets

#### **Summary of focus areas Eleventh Malaysia Plan, 2016-2020**

##### **Moving forward Eleventh Malaysia Plan, 2016-2020**

Focus area A: Strengthening the enabling environment for green growth

Focus area B: Adopting the sustainable consumption and production concept

Focus area C: Conserving natural resources for present and future generations

Focus area D: Strengthening resilience against climate change and natural disasters

## **Conclusion**

## Overview

Malaysia has set a target to become an advanced economy by 2020. This will be achieved in a resilient, low-carbon, resource-efficient, and socially-inclusive manner. The intention is to shift from the conventional and costly 'grow first, clean-up later' path to a more greener trajectory – Green Growth – which will ensure that socio-economic development is pursued more sustainably, beginning at the planning stage, and continuing throughout the implementation and evaluation stages. Socio-economic development is vital in raising the quality of lives of Malaysians, but if limited natural resources are not used efficiently, it will result in irreversible damage and put Malaysia's development at risk. Green growth is therefore a game changer because it is not just a stand-alone strategic thrust, but a development trajectory that considers all three pillars of sustainable development – economic, social, and environment, and better prepares the nation for future challenges. If carried out successfully, it will increase economic growth, change mindsets and behaviour at all levels of the society, as well as influence policy decisions in government, production decisions in industries, and consumption decisions by individuals. This in turn will correct the perception of green growth – from a high cost to a long-term investment.

**The Tenth Malaysia Plan**, 2011-2015, recognised the importance of environmental sustainability as part of a comprehensive socio-economic development plan. Measures to address the issues of climate change, environmental degradation, and sustainable utilisation of Malaysia's natural endowment were therefore featured in the Tenth Plan. In 2009, Malaysia set a voluntary target of reducing the greenhouse gases (GHGs) emission intensity of its Gross Domestic Product (GDP) by up to 40% compared to 2005 levels by 2020. Under the Tenth Plan, by the end of 2013, Malaysia had already achieved a 33% reduction. Energy sector, which is a major

contributor to national GHGs emission, has undertaken steps to increase the use of clean and environmentally friendly sources. The Renewable Energy Act, 2011 implemented the Feed-in Tariff (FiT) mechanism to accelerate renewable energy (RE) growth in Malaysia, and since then RE installed capacity has grown from 53 megawatts (MW) in 2009 to 243 MW in 2014. In adapting to climate change, nearly a million people have been shielded from the detrimental impact of floods through the implementation of 194 flood mitigation projects. 23,264 hectares of forested areas have been declared as Permanent Reserved Forest under the Central Forest Spine initiative, helping to sustain Malaysia's natural endowment.

**In the Eleventh Malaysia Plan,** 2016-2020, green growth will be a fundamental shift in how Malaysia sees the role of natural resources and the environment in its socio-economic development, protecting both development gains and biodiversity at the same time. Building a socio-economic development strategy that will increase the resilience to climate change and natural disasters remains critical. To pursue green growth, the enabling environment will be strengthened — particularly in terms of policy and regulatory framework, human capital, green technology investment, and financial instruments. This enabling environment will facilitate a shift in the economy, particularly in the private sector, towards more sustainable patterns of consumption and production. This transformation will ensure sustainability of the nation's natural resources, minimise pollution, and strengthen energy, food and water security. By conserving biodiversity, the continuity of their function as a natural buffer against climate change and natural disaster can be strengthened. This buffer, complemented by structural approaches such as innovative flood mitigation and green infrastructure, as well as non-structural approaches like hazard risk maps and warning systems, will strengthen disaster risk management and ultimately improve the wellbeing and quality of life of the *rakyat*.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements

33%

Reduction in greenhouse gases emission intensity of GDP compared to 2005 levels as of 2013

15%

Household recycling rate achieved in 2015, versus 5% in 2010



EURO 4M standards for fuel gazetted in 2013



Renewable Energy Act 2011 enforced and the Feed-in Tariff mechanism implemented

1 million

People shielded from floods through 194 flood mitigation projects

**Climate mitigation:  
reducing Malaysia's carbon footprint**

34

Flood hazard maps developed



MRIA1 aerobic paddy variant launched in 2013

61%

Forest cover in 2014, up from 56.4% in 2010

23,264

Hectares of forest gazetted as Permanent Reserved Forest under the Central Forest Spine



Crocker Range Park in Sabah listed as Man and Biosphere Reserves by UNESCO

**Climate adaptation:  
protecting the nation from  
the impact of climate change**

**Enhancing conservation of the nation's  
ecological assets**

# Looking back

## Tenth Malaysia Plan, 2011-2015: Progress

Natural assets, particularly forests, are critical to ensure sustainability of Malaysia's growth and to act as defenses against natural disasters. Therefore, conservation of natural endowment to reverse natural resource depletion is essential.

The Tenth Malaysia Plan focused on improving environmental quality by undertaking climate change mitigation, adapting to its impact, and increasing efforts to conserve ecological assets.

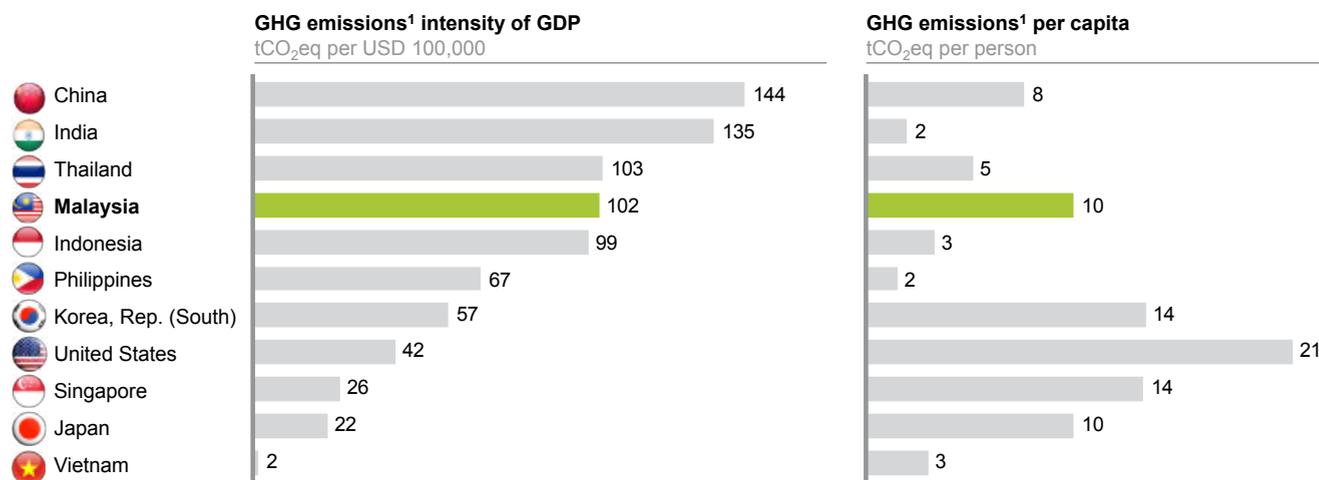
### Climate mitigation: reducing Malaysia's carbon footprint

To achieve the voluntary target of reducing greenhouse gases (GHGs) emission intensity of GDP by up to 40% in the year 2020, compared to 2005 levels, various mitigation measures were undertaken during the Tenth Plan. Exhibit 6-1 shows Malaysia's GHGs emission intensity of GDP and per capita in 2011.

The Renewable Energy Act was enforced in 2011 to accelerate contribution from green energy such as solar photovoltaic (PV), biomass, biogas and mini hydro in Malaysia's electricity generation mix. The Act, which enabled the introduction of FiT for RE, has increased installed capacity between 2009 and 2014 fivefold to 243 MW. As of 2013, this initiative reduced GHGs emission by 432,000 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>eq). At the same time, energy demand management through the Minimum Energy Performance Standards (MEPS) for domestic appliances was gazetted in 2013. The implementation of the Sustainability Achieved via Energy Efficiency (SAVE) Programme (2011-2013) has reduced

Exhibit 6-1

### Comparison of emissions intensity of GDP and per capita in 2011



<sup>1</sup> Excluding land use change and forestry

Source: World Resources Institute – Climate Analysis Indicator Tools (WRI CAIT) and the World Bank

energy consumption by 306.9 gigawatt hour (GWh) as shown in Exhibit 6-2. This has resulted in GHGs avoidance amounting to 208,705 tCO<sub>2</sub>eq. The retrofitting of four government buildings has reduced electricity use ranging from 4% to 19% monthly, equivalent to RM7,000 to RM130,000 savings.

In the transportation sector, initiatives were undertaken to control emissions from motor vehicles along with higher use of energy efficient vehicles and biofuels. The Government gazetted EURO 4M standards in 2013 and enforce its use in RON97 in 2015. To support implementation of bio-diesel B5 Programme (5% bio-diesel blending in automotive fuel), 35 depots were constructed nationwide with in-line blending facilities. As of 2013, the implementation of B5 Programme has managed to reduce GHGs emission by 1.4 million tCO<sub>2</sub>eq. By end of 2014, Malaysia had also introduced the bio-diesel B7 programme (7% bio-diesel blending) nationwide.

Waste management initiatives have also helped avoid and reduce GHGs emission. Conversion of empty palm oil fruit bunches to energy avoided

GHGs emission of 33.1 million tCO<sub>2</sub>eq, while paper recycling activities reduced GHGs emission of four million tCO<sub>2</sub>eq, as of 2013. The Reuse, Reduce, and Recycle (3R) programme was intensified during the Tenth Plan and household recycling rate rose from 5.0% in 2010 to 10.5% in 2012. To support waste-to-wealth initiatives, the National Biomass Strategy 2020 was launched in 2013 to assess how Malaysia will develop new industries by utilising agricultural biomass waste for high value products, including those for exports. An example is the use of palm oil biomass pellets for power generation and for other uses such as medium-density fibre boards.

Forest areas in the states of Pahang, Perak and Selangor were gazetted as Permanent Reserved Forest and this resulted in GHGs emission avoidance of 11.8 million tCO<sub>2</sub>eq. The implementation of projects from the Green Technology Financing Scheme (GTFS) also resulted in GHGs emission reduction of nearly 93,000 tCO<sub>2</sub>eq. In terms of meeting the Montreal Protocol commitment, Malaysia has achieved specific pre-2010 outcomes for reducing ozone-depleting substances and is on-track to comply with the post-2010 provisions of the Protocol by the

Exhibit 6-2

### Energy savings from SAVE Programme over 2011 – 2013

#### Sustainability Achieved via Energy Efficiency (SAVE) Programme

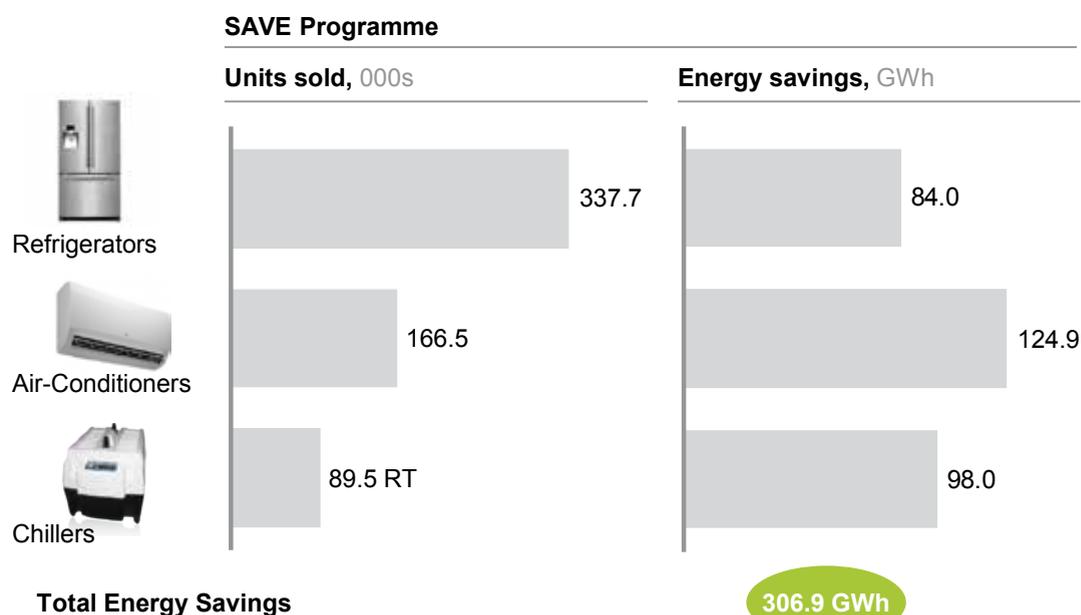
The SAVE programme was an initiative spearheaded by the Ministry of Energy, Green Technology and Water (KeTTHA) from 2011 to 2013

Introduced by the Government in collaboration with utility companies and participating appliance manufacturers

Rebates offered to qualified customers for

- Purchase of five star rated appliances, RM200 for refrigerators and RM100 for air-conditioners
- Replacement of old chillers (>10 years) to energy efficient chillers, RM200 per RT<sup>1</sup>

Encouraged addition of new energy efficient products – 27 new brands of air-conditioners and refrigerators



<sup>1</sup> Refrigeration Tonnes

Source: Sustainable Energy Development Authority (SEDA), Economic Planning Unit (EPU)

end of 2015 with the phasing out of the hydrochlorofluorocarbon (HCFC) substances.

To support the development of local green products, 73 eco-label licences were issued to companies producing such products, which included electrical appliances, cleaning agent for household and personal care as well as products used for construction and steel industry. MyCarbon Reporting Programme, a voluntary reporting mechanism was launched in December 2013 to encourage and facilitate private entities to measure and report their GHGs emissions, from which

they could identify actions to reduce the emissions. As of January 2015, 26 companies volunteered to participate in the programme.

### Climate adaptation: protecting the nation from the impact of climate change

In terms of adapting to the impact of climate change, focus was given to water resources and the agriculture sector. The implementation of 194 flood mitigation projects has shielded nearly one million people from floods. In addition, 34 hazard maps were developed to facilitate

Exhibit 6-3

#### Marine water quality of selected estuaries in Malaysia

Unit = Marine water quality index<sup>1</sup>

	2011, index	2013, index	Change, %
Kuala Batang Rejang, Sarawak	70.8	86.8	15.9
Kuala Kedah, Kedah	65.4	84.2	18.8
Kuala Sungai Lukut, N. Sembilan	67.9	66.8	-1.2
Kuala Sungai Segget, Johor	67.5	61.5	-6.0
Kuala Sungai Setiu, Terengganu	49.8	61.1	11.3
Muara Sungai Inanam, Sabah	58.8	59.2	0.4
Kuala Sungai Kelantan, Kelantan	45.1	53.9	8.8
Kuala Sungai Langat (Jugra), Selangor	53.0	53.6	0.6
Kuala Sungai Gula, Perak	22.9	50.9	28.0
Kuala Sungai Juru, Pulau Pinang	49.6	49.7	0.1
Kuala Sungai Perlis	54.7	48.8	-5.9
Kuala Sungai Kesang, Melaka	67.1	45.3	-21.8

<sup>1</sup> Index measures water quality on a 0-100 scale, with <50 classified as 'Poor', 50-79.99 as 'Moderate', 80-89.99 as 'Good' and >90 as 'Excellent'

Source: Department of Environment

disaster prevention and development planning in major high-risk areas. Coastal erosion prevention efforts were undertaken to rehabilitate and protect coastal areas from being further eroded. In this regard, 24.4 kilometres of coastal areas in Johor, Kelantan, Pulau Pinang, Sabah, Sarawak, Selangor, and Terengganu were rehabilitated. In addition, the National Water Resources Policy was launched in 2012 to provide clear directions and strategies for water resources management, including collaborative governance to ensure water security and continued sustainability.

In addition to building the resilience of the nation against flooding or prolonged drought, new strategies to improve food security were introduced. A new aerobic paddy variant, known as MR1A1, was launched in 2013 with improved resistance to heat and water scarcity, allowing plantation of this staple food in water-poor areas and during off season. The aerobic variant will help to increase rice production while adapting to climate change.

## Enhancing conservation of the nation's ecological assets

Natural assets, particularly forests, are critical to ensure the sustainability of Malaysia's growth and to act as defenses against natural disasters. Reversing natural resource depletion is therefore critical. During the Plan, forest cover has increased from 56.4% in 2010 to 61% in 2014. Various conservation initiatives were also undertaken, such as gazetting 23,264 hectares of forest as Permanent Reserved Forest under the Central Forest Spine initiative and the planting of 53 million trees. Along coastal areas, nearly 2,509 hectares of mangroves and other suitable species were planted to protect coastlines against wave actions and coastal winds, reduce salt water intrusion into rivers and provide breeding grounds for fish and other marine life. Additionally, 1,500 flowering tree species were documented and Crocker Range Park in Sabah was listed as Man and Biosphere Reserves by UNESCO in 2014.

At the same time, relevant policy and legislation were reviewed to strengthen conservation and enforcement efforts. The National Policy on Biological Diversity, 1998 was revised to serve dual purposes - as

the principal policy document to guide biodiversity management and to align with internationally accepted Aichi Biodiversity Targets. Management plans were developed for Pulau Sibul-Pulau Tinggi Marine Park, Johor; Pulau Tioman Marine Park, Pahang; and Pulau Redang Marine Park, Terengganu to enhance and improve management of these parks and their resources. Exhibit 6.3 shows marine water quality for selected estuaries in Malaysia. The National Conservation Trust Fund for Natural Resources was established in 2014 to support conservation efforts. Besides funding from the Federal government, contribution from other parties, such as state governments, private sector, individuals, as well as organisations from within and outside the country is being encouraged. Concurrently, the 1Malaysia Biodiversity Enforcement Operation Network, involving multiple enforcement agencies, was established so that concerted and coordinated efforts to combat poaching and illegal wildlife trade effectively were undertaken.

\* \* \*

While the Tenth Plan laid the foundation for sustainable economic growth, increased frequency and intensity of climate related disasters have had an impact on the livelihood and safety of the people. This highlights the need for strengthening disaster risk management, addressing gaps in how it is assessed and prepared for, and involving communities and the private sector. Insufficient consideration of social and environmental costs in certain socio-economic development projects also undermined the natural asset base and caused ecological degradation, ultimately creating a detrimental impact on people and costs that will be borne by the Government. Stronger protection and conservation of terrestrial and marine areas, environmentally sensitive ecosystems and water resources should therefore be intensified to limit and avoid such damage. Regulatory framework that lay the foundations for transformational shifts such as RE investments have been introduced, but new instruments and stricter enforcement is necessary to boost these initiatives. Malaysia is a fast growing economy, with citizen lifestyles, demands and expectations changing rapidly. As demand drives supply, the demand side needs to be addressed systematically as well.

# Summary of focus areas

## Eleventh Malaysia Plan, 2016-2020

### Strengthening resilience against climate change and natural disasters

- Strengthening disaster risk management
- Improving flood mitigation
- Enhancing climate change adaptation

### Strengthening the enabling environment for green growth

- Strengthening governance to drive transformation
- Enhancing awareness to create shared responsibility
- Establishing sustainable financing mechanisms

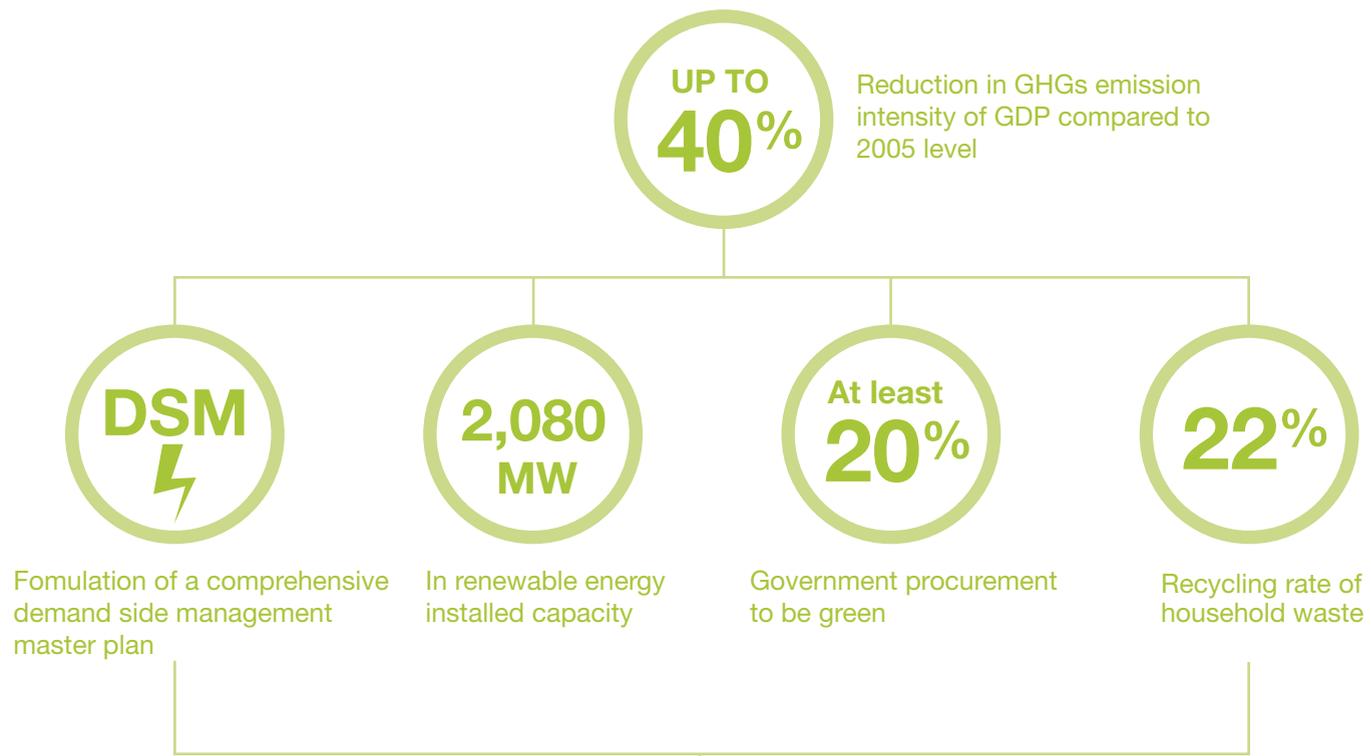
### Conserving natural resources for present and future generations

- Ensuring natural resources security
- Enhancing alternative livelihood for indigenous and local communities

### Adopting the sustainable consumption and production concept

- Creating green markets
- Increasing share of renewables in energy mix
- Enhancing demand side management
- Promoting low carbon mobility
- Managing waste holistically





Adopting the sustainable consumption and production concept



Strengthening resilience against climate change and natural disasters



National crisis and disaster management centre to enhance capacity for disaster preparedness and response



People protected through flood mitigation projects

Conserving natural resources for present and future generations



Terrestrial and inland water areas gazetted as protected areas



Coastal and marine areas gazetted as protected areas

# Moving forward

## Eleventh Malaysia Plan, 2016-2020

Green growth will be the game changer in bringing Malaysia towards a sustainable socio-economic development path, where improvements in quality of life are in harmony with the sustainability of the environment and natural resources.

Building upon the initiatives launched in the Tenth Plan to address issues in environmental protection, climate change and biodiversity, the Eleventh Plan continues to strengthen the nation's resilience to natural disasters, and more fundamentally, charts a paradigm shift towards green growth. For the Eleventh Plan, two principal outcomes have been set. Firstly, to reduce GHGs emission intensity of GDP by up to 40% compared to 2005 levels by year 2020, in line with the voluntary target announced by the Prime Minister at the 15<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change in 2009, and secondly, to conserve at least 17% of terrestrial and inland water areas, as well as 10% of coastal and marine areas as protected areas in line with the Aichi Biodiversity Targets.

To achieve these outcomes, the Government will introduce a transformative green growth strategy framework. This framework reinforces the Government's commitment to address the impact of climate change and manage natural resources in a comprehensive and sustainable manner. An elaboration of green growth as a game changer for Malaysia is shown in the following page. Four focus areas under this framework will lead to significant changes in Malaysia's approach to sustainable and resilient development. The Government will strengthen the supportive environment for this transformation to take place. Development in environmentally

sensitive areas and dependency on stressed natural resources will be reduced significantly. A comprehensive disaster risk management approach will be put in place to respond to the increased frequency and intensity of climate-related disasters, with an important reorientation from a cost to an investment for the future. In addition, flood mitigation approaches with multifunctional purposes will be explored to attract investments in value-generating economic activities. Management of waste will shift towards a comprehensive reuse, reduce, and recycle (3R) approach that will reduce development of new landfills. In the area of energy security, there will be a shift from a focus on supply-side solutions towards a stronger balance of both supply-side and demand side management measures.

To achieve these, the Government will focus on four key areas in pursuing green growth for sustainability and resilience as follows:

- Focus area A: Strengthening the enabling environment for green growth
- Focus area B: Adopting the sustainable consumption and production concept
- Focus area C: Conserving natural resources for present and future generations
- Focus area D: Strengthening resilience against climate change and natural disasters

## Game Changer Embarking on green growth

“Growth that is **efficient** in its use of natural resources, **clean** in that it minimises pollution and environmental impacts, and **resilient** in that it accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters.”  
(World Bank)

Efficient + Clean + Resilient

### Why is green growth important for Malaysia?

Malaysia, like many countries across the world, is grappling with the challenge of balancing a growing population and demand, with a natural environment that is increasingly under stress. In a global context of increasing intensity and frequency of extreme weather events, adopting green growth has now become an imperative for Malaysia. It represents Malaysia’s commitment to renew and, indeed, increase its commitment to the environment and long-term sustainability.

### What will success look like?

A successful green growth trajectory will ensure:

- Detrimental impact of socio-economic activity on environmental systems is reduced;
- Natural capital, including forested areas, biodiversity, and water resources as well as its ecosystems, is valued and sustainably managed;
- Development gains are protected, thus ensuring wellbeing of people across generations; and
- Energy use is efficient and renewable energy is widely used.

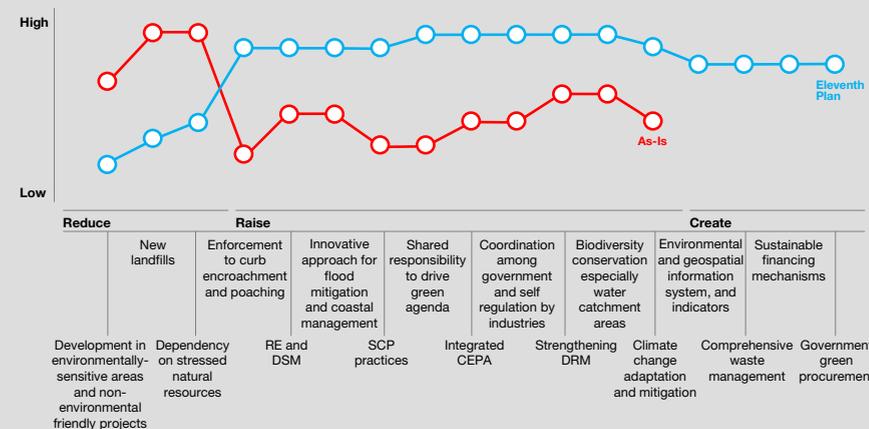


### How will this be achieved?

Achieving these aspirations requires a fundamental shift away from a ‘grow first, clean up later’ development model towards one that views resilient, low-carbon, resource-efficient, and socially inclusive development as an upfront investment that will yield future gains over multiple generations to come. This requires fundamental changes across every major dimension including how policy is determined, how institutions are regulated, how responsibilities are shared, and how people value their environment.

The strategy canvas highlights areas that should be eliminated, reduced, raised or created for this game changer.

### Strategy canvas: Pursuing green growth





## Focus area A

# Strengthening the enabling environment for green growth

Green growth requires fundamental transformations – in regulations and guidelines applicable to businesses, in guiding consumers to make household purchasing decisions and in managing the nation’s energy and natural resources. Many of these changes are innovative, either involving new green technologies or technologies relatively novel to the Malaysian context. For this change to take place smoothly, the Government will provide the relevant policy and institutional framework for green growth. Creating long-term commitment from all stakeholders, businesses, civil society, and most importantly the people, is critical as this transition and associated results will take time. Concurrently, measures and instruments to build capacity, monitor, and evaluate programmes to support green growth efforts will be put in place. Three strategies will be undertaken to establish the enabling environment for green growth:

- **Strategy A1: Strengthening governance to drive transformation** by enhancing regulatory and institutional framework, coordination, capacity as well as monitoring and evaluation mechanisms;
- **Strategy A2: Enhancing awareness to create shared responsibility** through comprehensive communication, education, and awareness programmes and platforms for knowledge sharing; and
- **Strategy A3: Establishing sustainable financing mechanisms** by expanding existing and identifying new economic instruments.

### Strategy A1

## Strengthening governance to drive transformation

The policy, regulatory and institutional framework will be strengthened to encourage industries to shift to greening their products and services

by adopting green technologies as well as accelerating innovation and development of indigenous green technology.

### Formulating and strengthening relevant policies and legislations

Existing regulations such as the Environmental Quality Act, 1974; Solid Waste and Public Cleansing Management Act, 2007; National Policy on Climate Change, 2009; and biodiversity-related policies will be revised and strengthened to further encourage and support sustainable socio-economic development. New policy framework, including the sustainable consumption and production (SCP) blueprint, sustainable development blueprint, national mitigation plan, and national policy on geospatial information management will be formulated. Legislation on disaster risk management and geospatial information management will also be formulated to regulate and provide an enabling environment for green growth.

### Strengthening institutional framework

The institutional framework will be strengthened with the establishment of a national crisis and disaster management centre, national climate change centre, national committee on sustainable waste management, and national chemical management board through the restructuring and deployment of talent from existing agencies. Coordination and collaboration among relevant ministries and agencies, particularly at the federal and state levels, will also be strengthened to achieve green growth and better resource management.

### Enhancing capacity and capability

The transition to green growth will be supported by developing the required capacities, capabilities, and skills at all levels. This will be undertaken by relevant ministries and agencies at the federal, state and local levels as well as the private sector and academia. Initiatives will include identifying new competencies and skills needed for the development of areas such as RE, demand side management, green buildings, waste to energy, bioengineering, and biosafety; introducing

and scaling up training programmes and enhancing their effectiveness through certification by relevant authorities; and intensifying research and development and innovation of indigenous green technology to support green growth, particularly in RE, construction, and transport.

### Improving monitoring and evaluation mechanisms

Comprehensive monitoring and evaluation mechanisms will be established to track and assess the effectiveness of green growth initiatives, as well as to facilitate planning and decision-making process, so as to enable continuous improvements in undertaken efforts. In this regard, a one-stop centre will be established to provide access and linkage to all data in the nation, including data that are housed in relevant agencies. This will facilitate data searching and ensure accessibility. In view of this, the Department of Statistics will take the lead to establish an appropriate mechanism and coordinate with relevant ministries and agencies. Simultaneously, new indicators such as the green economy indicators, resource indicators and inventory, and SCP indicators will be developed to complement existing ones, making them more meaningful in reflecting the current situation.

## Strategy A2

### Enhancing awareness to create shared responsibility

Communication, education and public awareness (CEPA) programmes engaging all levels of society will be enhanced to increase awareness about the environment, climate change adaptation and mitigation, conserving natural resources, and the role of green growth in raising productivity. This will instil a sense of shared responsibility among all stakeholders including federal and state governments, the private sector, academia, NGOs, and the *rakyat* towards comprehensive and coordinated efforts for better quality of life. Better knowledge and awareness will ultimately lead to changes in mindset, behaviour and habits.

### Comprehensive communication and awareness programmes

The Government will improve the effectiveness of CEPA programmes by coordinating and integrating public awareness messages communicated by different public sector agencies and on different

themes – including demand side management, transport, energy consumption, recycling, biodiversity conservation, climate change, disaster risk management, and environmental pollution. Better coordination will increase understanding, visibility and retention of such messages, ensuring the right messages are communicated to the correct target audiences. Besides Government-led initiatives, involvement of the private sector, NGOs, academia, and the *rakyat* in CEPA programmes will also be encouraged.

### Platform for knowledge sharing and collaboration

Platforms will be created for sharing of best practices and collaboration on green growth related projects. This will involve opportunities for public sector planning agencies and implementers to share best practices, knowledge, and expertise. Such collaboration will also extend beyond the public sector to include all stakeholders, particularly the private sector, NGOs as well as indigenous and local communities involved in conservation, innovation and disaster risk management.

## Strategy A3

### Establishing sustainable financing mechanisms

Negative externalities of socio-economic development will be taken into consideration when planning, evaluating, and implementing public and private sector development projects, to achieve the double dividend of higher economic growth and lower environmental impact.

### Expanding existing economic instruments

Implementation of existing mechanisms such as Polluter Pays Principle and Payment for Ecosystem Services will be expanded to support funding needed to address environmental pollution and conserve biodiversity and its ecosystem.

### Funding green growth through new economic instruments

Economic instruments such as green tax, carbon tax, green bonds, and REDD+ (reducing emissions from deforestation and forest degradation) will be utilised where appropriate to develop green financing systems. This is important to support the implementation of green initiatives and expand conservation efforts. The Government will continue to evaluate the use of such mechanisms.



## Focus area B

# Adopting the sustainable consumption and production concept

Sustainability refers to the efficient use of limited resources like water, land, energy and other raw materials, and holistic management of residues - solid waste, effluents or emitted gases. The Government will take the lead in establishing the sustainable consumption and production (SCP) approach in prominent sectors in Malaysia including industry, power generation, infrastructure, and transportation. This requires establishing relevant regulatory framework – standards, certifications and guidelines. Details on the SCP framework are highlighted in Box 6-1, and the following five strategies will be undertaken:

- **Strategy B1: Creating green markets** through Government green procurement, adoption of green buildings criteria and strengthening green certification;
- **Strategy B2: Increasing share of renewables in energy mix** by exploring new RE sources, enhancing capacity of RE personnel and implementing net energy metering;
- **Strategy B3: Enhancing demand side management (DSM)** by formulating a comprehensive DSM master plan and expanding DSM measures;
- **Strategy B4: Promoting low carbon mobility** through utilisation of energy efficient vehicles and public transportation; and
- **Strategy B5: Managing waste holistically** through better coordination, encouraging 3R and using waste as a resource for other industries.

## Strategy B1

### Creating green markets

The Government will act as a catalyst to create green markets in products and services including buildings. The Ministry of Energy, Green Technology and Water (Kementerian Tenaga, Teknologi Hijau dan Air, KeTTHA) supported by relevant ministries and agencies will promote the development of a domestic market for green products and services. Measures to be undertaken include implementing Government green procurement, promoting the development of green buildings and greening of industries to spur green growth. A Government driven push will encourage local industries, especially small and medium enterprises, to develop green products and services, eventually leading to further greening of the supply chain.

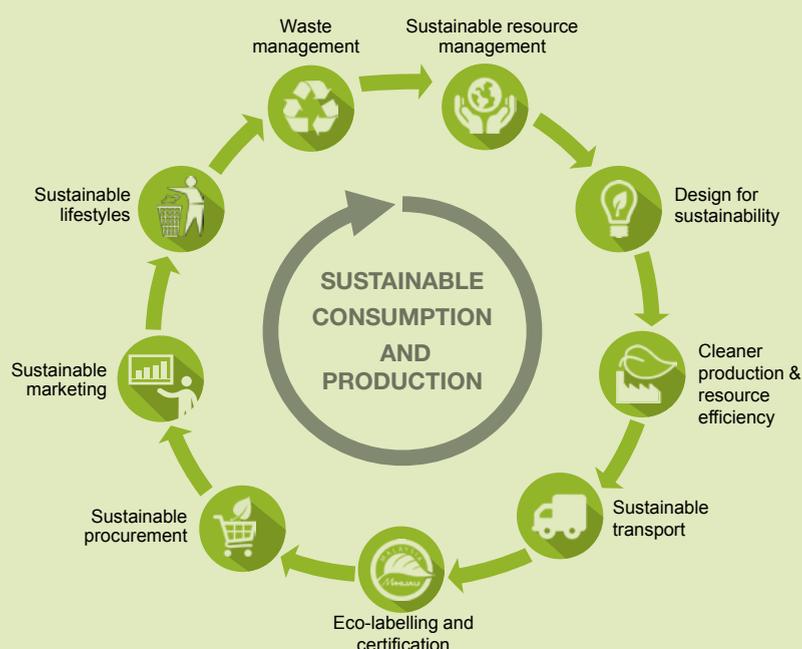
#### Implementing Government green procurement

Government green procurement (GGP) will be made mandatory for all government ministries and agencies. GGP will create the demand for green products and services, encouraging industries to raise the standard and quality of their products to meet green requirements. GGP will complement the existing eco-labelling scheme in the country for green products certification. By 2020, it is targeted that at least 20% of government procurement will be green. Concurrently, the private sector will also be encouraged to emulate Government efforts in green procurement.

#### Encouraging widespread adoption of green buildings criteria

New government buildings will adopt green features and designs, and use green building materials as per the Skim Penarafan Hijau Jabatan Kerja Raya Malaysia. Existing government buildings will be gradually retrofitted. Industry players will also be encouraged to obtain green certification for private buildings such as GreenPASS and the

## Box 6-1

**Sustainable consumption and production****Background**

Sustainable consumption and production (SCP) is a concept that promotes economic growth without compromising the environment or jeopardising the needs of future generations. This means efficient use of natural resources, minimising use of hazardous substances and reducing pollution and waste over the life cycle of products and services. Through this life cycle approach, SCP invites people to consider the environmental impact and ensure resource efficiency at both the production and consumption phases.

**SCP in Malaysia**

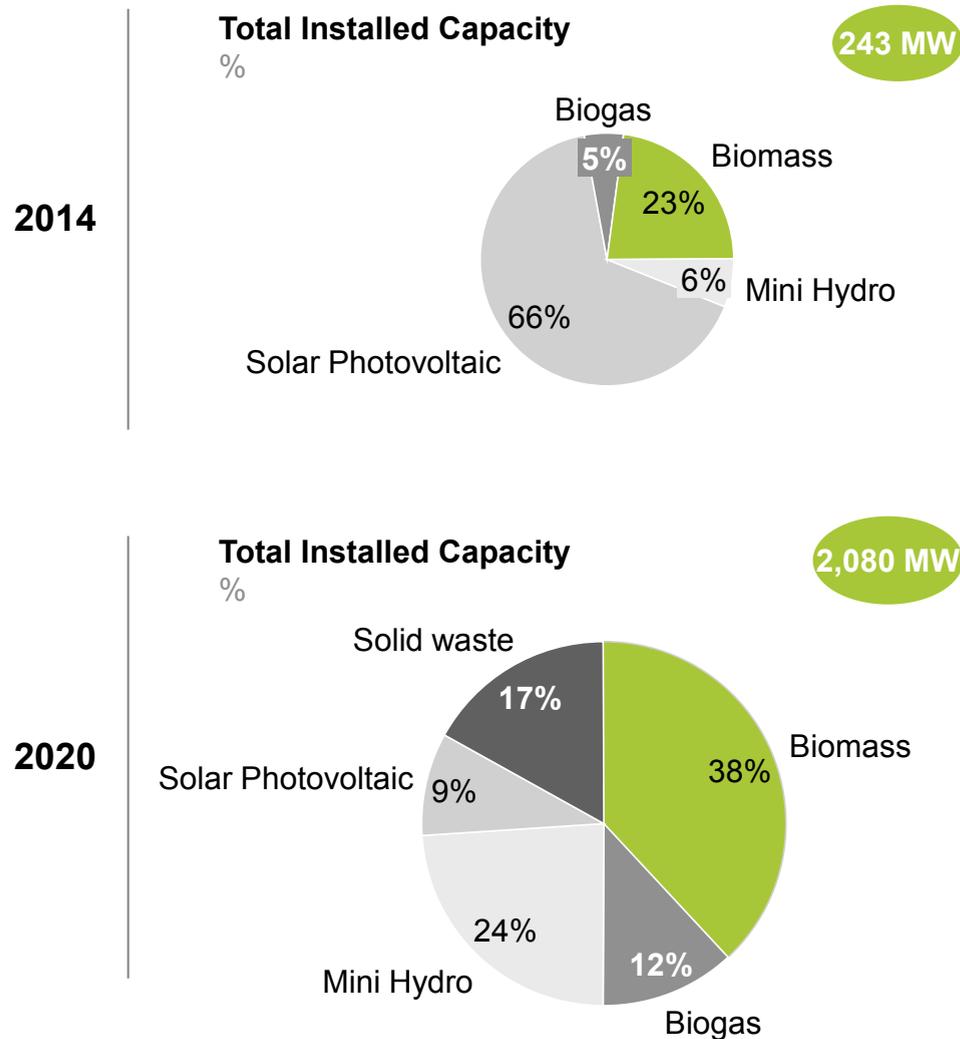
SCP is one of the approaches to achieve green growth. Malaysia is undertaking the SCP project under the SWITCH-Asia Programme Policy Support Component for a period of four years, from February 2012 until January 2016. The project coordinates the goals of

economic growth, environmental protection and social inclusiveness into an integrated development concept. The main output is a national SCP blueprint, outlining measures and areas of priority to achieve green growth.

**Initiatives undertaken in Malaysia**

- 1. Government green procurement (GGP):** Government purchases of environmentally friendly products and services to spur demand for green industries. Malaysia has developed GGP guidelines and as a pilot project that started in July 2013, five selected ministries have procured green products and services worth RM352 million as of April 2015.
- 2. SCP in education:** Integrating SCP in the formal syllabi to instil sustainable behaviour among students. The SCP curriculum was drafted in collaboration with the Ministry of Education, containing training along eight themes, including energy, water, waste, food consumption and production, transport and sustainable buildings.
- 3. SCP portal ([www.scpmalaysia.gov.my](http://www.scpmalaysia.gov.my)):** Developed to enhance awareness, knowledge and capacity of all levels towards green growth.
- 4. Development of SCP indicators:** Indicators to assess the impact of SCP on the economy, society and the environment:
  - Greenhouse gas emissions per GDP (tCO<sub>2</sub>eq per year per GDP);
  - Proportion of citizens living under the poverty line (%);
  - Domestic Extraction (DE) per GDP;
  - Domestic Materials Consumption (DMC) per GDP;
  - Products in the Green Directory (number);
  - Resource consumption per capita - energy, water and materials;
  - Waste generation (tonnes solid waste per year);
  - Energy consumption per square metre per capita and total energy consumption;
  - Share of biofuels in transport fuel mix (%);
  - Expenditure on government green procurement (RM million); and
  - Eco-label awards according to the National Eco-Label Programme (SIRIM Eco-labelling Scheme) (number).

Exhibit 6-4

**Renewable energy installed capacity by sources**

Source: SEDA Malaysia, EPU

Green Building Index. Apart from ensuring efficient use of resources, particularly energy and water use, green buildings will also reduce GHGs emission.

**Strengthening green certification**

Green rating systems and standards, aligned with international best practices, will be introduced to promote the greening of industries. Simultaneously, the MyHijau Mark programme, a uniform labelling established by the Government for green products and services, will be expanded for key product areas such as household products, electronic and electrical appliances. In addition, the Department of Environment (DOE) will expand self-regulation among industries to mitigate pollution at source, and cover new aspects such as noise and soil pollution, in addition to hazardous waste, water and air pollution.

**Strategy B2****Increasing share of renewables in energy mix**

RE capacity is expected to reach 2,080MW by 2020, contributing to 7.8% of total installed capacity in Peninsular Malaysia and Sabah. In the Eleventh Plan, focus will be on promoting new RE sources, enhancing capacity of RE personnel and implementing net energy metering to further intensify the development of RE. Current and forecasted RE installed capacity is shown in Exhibit 6-4.

**Exploring new RE sources and enhancing capacity of RE personnel**

Studies will be conducted to identify new RE sources to diversify the generation mix. In the Eleventh Plan, new RE sources such as wind, geothermal and ocean energy will be explored. Currently, the national wind mapping exercise is underway and is expected to be completed by 2016. The exercise will further enable a study of the feasibility of wind energy to be developed. Geothermal potential will also be further explored with the discovery of a 12 square kilometres

geothermal field in Apas Kiri, Sabah. Viability of ocean energy will be explored to take advantage of Malaysia's geographical position of being surrounded by sea.

The RE industry will diversify Malaysia's energy mix in a more sustainable manner, create employment, and enhancing skills. The industry is expected to create about 15,300 jobs, comprising of skilled and semi-skilled jobs. The Government will provide training to 1,740 personnel through the Sustainable Energy Development Authority (SEDA), creating experts in the field of biomass, biogas, mini hydro and solar PV. The participants will be employees from the industry such as RE project developers, financial institutions and potential service providers. In addition, the private sector will be encouraged to conduct training and increase the number of RE experts.

### Implementing net energy metering

To complement the current FiT mechanism in encouraging the take-off of RE, a new instrument termed as net energy metering (NEM) will be implemented in the Eleventh Plan. The objective of NEM is to promote and encourage more RE generation, by prioritising internal consumption before any excess power generated is fed to the grid. NEM is anticipated to encourage manufacturing facilities and the public to generate power without any restriction on their generation capacity. This will further assist the Government's effort to increase the contribution of RE in the generation mix. NEM will be executed by KeTTHA and utility companies, and regulated by Suruhanjaya Tenaga based on amended legal provisions.

## Strategy B3

### Enhancing demand side management

Demand side management (DSM) marks an important paradigm shift for Malaysia towards efficient management of energy resources. This initiative will give due emphasis to the demand side for a balanced management of the entire energy spectrum. In addition, DSM provides solutions to problems such as load management, energy efficiency, and strategic conservation of resources. The main goal of DSM is to encourage consumers to use less energy during peak hours and to move the time of energy use to off-peak hours. This

strategy will broaden and extend the successful outcomes from early DSM initiatives during the Tenth Plan such as MEPS and the SAVE programme.

### Formulating a comprehensive demand side management master plan

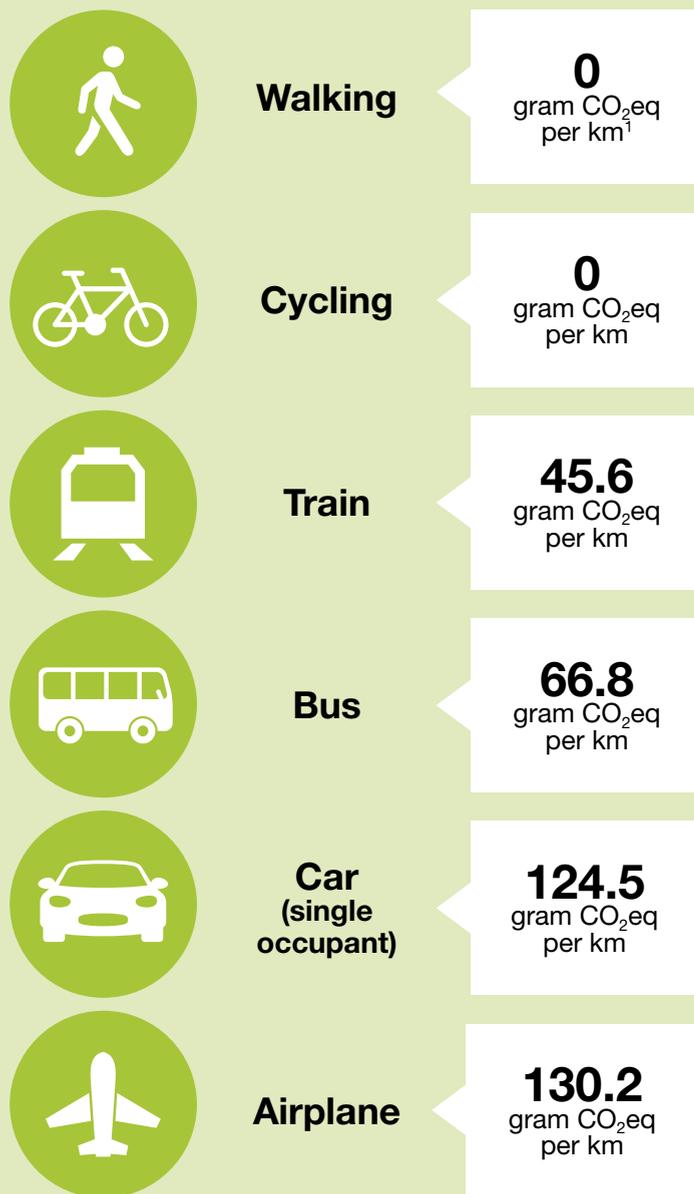
A comprehensive long-term DSM master plan is required for prudent energy usage. The Economic Planning Unit, Prime Minister's Department (EPU) will initiate a study on DSM which covers the whole spectrum of the energy sector. DSM is a vital tool to reduce peak electricity demand impacting the overall load on an electricity network. This will have beneficial effects including mitigating electrical system emergencies and increasing system reliability. It will also result in less dependence on expensive imports of fuel, reducing peak power demand and minimising harmful emissions to the environment. DSM will be able to maximise the return on utilisation of existing and new electricity supply assets. The flattening of the demand curve will positively constrain demand growth and result in deferment of construction of new electricity supply infrastructures. The scope of the new DSM master plan will include the electric and thermal energy, including usage in the transport sector.

### Expanding demand side management measures for buildings, industries and households

During the Eleventh Plan, measures will be taken to identify potential improvements and appropriate approaches to ensure efficient use of energy in buildings, industries and households. These measures include increasing competencies of energy service providers, especially Registered Electrical Energy Managers, and promoting the implementation of Energy Performance Contracting for government buildings. User awareness will be enhanced on energy labelling and the availability of standards such as ISO 50001 for buildings and MEPS for appliances will be promoted. Other specific measures will include introduction of Enhanced Time of Use (EToU) tariff scheme and gradual abolishment of the Special Industrial Tariff for energy intensive industries. Infrastructure related initiatives such as implementation of smart grids and highly efficient co-generation technologies for combined heat and power system will be promoted.

## Box 6-2

## Comparison of carbon footprint by modes



<sup>1</sup> Grams of carbon dioxide equivalent per kilometre  
Source: European Energy Agency

## Strategy B4

## Encouraging low carbon mobility

Low carbon mobility emphasises the usage of public transport, which can have a carbon footprint of nearly half that of a single occupant car as shown in Box 6-2. By encouraging the use of public transport, dual objectives of reducing congestion and minimising environmental pollution can be achieved. There are several mechanisms to reduce energy consumption and emissions of harmful gases including black smoke of the transport sub-sector. These include using of energy efficient vehicles (EEVs), increasing the use of biofuels and compressed natural gas (CNG), placing higher fuel standards to reduce air pollution and increasing the use of public transportation as the preferred mode by providing a seamless and reliable modal mix of transportation. This will eventually reduce over-dependency on private vehicles.

## Encouraging adoption of energy efficient vehicles

The use of EEVs is in line with the objectives of the National Automotive Policy (NAP), 2014. EEVs can contribute to minimising the impact on the environment in terms of reducing dependency on fossil fuel and fuel wastage as well as emission of harmful gases and black smoke. The Government will work with relevant private agencies to increase adoption of EEVs, especially for public transport like buses and taxis.

## Reducing environmental impact of transport sub-sector

Other measures will be undertaken with relevant public transport authorities to reduce the environmental impact of the sub-sector. Public transport investments in cities – including Mass Rapid Transit (MRT) systems in Greater Kuala Lumpur/Klang Valley (GKL/KV) and bus systems in other state capitals – will be made in line with declared targets to achieve 40% public transport modal share in GKL/KV and 20% in other cities. The Government will also work towards increasing bio-diesel blending requirements of up to 15% in automotive fuel and implementing the EURO 5 emission standards during the Eleventh Plan. The use of CNG will also be promoted.

## Strategy B5 Managing waste holistically

All seven types of waste - solid, agricultural, construction, radioactive, mining, sewage, and scheduled waste - will be managed in a holistic manner based on a life cycle approach. This approach extends beyond merely disposing the waste, rather it aims to increase recycling and recovery rate of waste and improve management of landfills to reduce the amount of waste and pollution. The National Solid Waste Management Department and the Solid Waste Management and Public Cleansing Corporation (SWCorp) will spearhead these initiatives, together with other relevant agencies such as the Atomic Energy Licensing Board, Department of Agriculture, DOE, Minerals and Geoscience Department, and Suruhanjaya Perkhidmatan Air Negara (SPAN).

### Increasing coordination on waste management

A waste management platform that meets regularly to coordinate matters on sustainable and holistic waste management will be established. Waste management is currently implemented independently by relevant agencies such as the DOE, SPAN and SWCorp as per their respective jurisdictions. This creates a gap in waste management, which will be addressed effectively through the establishment of a mechanism to provide oversight and perform tasks in a more integrated and coordinated manner.

### Encouraging reuse, reduce and recycle (3R)

The Government has set a goal of 22% household recycling rate by 2020. Waste reuse, reduction, and recycling is a long-term goal. Achieving it involves changing mindsets and behaviour while phasing in systems that enable better management of waste. Investments in 3R awareness and education programmes therefore need to continue during the Eleventh Plan to shape better consumption and waste disposal behaviour. Concurrently, implementation of waste separation at source can help achieve recycling outcomes. Waste separation at source for households will be implemented in selected states starting September 2015 and rolled out to other states subsequently during the Eleventh Plan.

### Increasing investment in waste as a resource

Using waste as a resource gives it economic value, thus diverting it away from landfills towards more productive use. Apart from addressing the issues of waste disposals and landfills, investing in waste recycling and recovery will also reduce dependency of industries on natural resources, as waste becomes a valuable resource – either converted to energy (e.g. biomass and food waste for power generation) or used as an input for other products. These initiatives will be private sector driven to ensure long-term financial viability of such projects and so that industries see the value of waste as a source of energy or inputs for their processes.



## Focus area C

# Conserving natural resources for present and future generations

Malaysia is blessed with rich biodiversity – forest, marine, and coastal areas with unique ecosystems, flora and fauna. These areas are invaluable buffers against climate change and natural disasters and are home to important biological assets. Conserving Malaysia's biodiversity is a commitment the Government will make to ensure future generations have the same access to these resources as the population today. While Malaysia has large forested areas, some have suffered environmental degradation in the recent past, highlighting the need to further intensify conservation efforts. Increasing enforcement against illegal deforestation and poaching and undertaking reforestation in affected areas will help towards this objective. Endangered plant and wildlife species also need to be specifically focused on to increase their numbers. To make this work, the Eleventh Plan will lay the regulatory framework on access to biological resources and benefits sharing (ABS). Communities that live on the fringes of protected areas and depend on natural resources will be trained to take on new opportunities to improve their quality of life. In order to enhance the conservation of biodiversity, two strategies will be undertaken, namely:

- **Strategy C1: Ensuring natural resources security** by conserving terrestrial and marine areas as well as endangered plant and wildlife species, managing natural resources and strengthening biosafety; and
- **Strategy C2: Enhancing alternative livelihood for indigenous and local communities** by involving them in biodiversity conservation and empowering them for alternative economic opportunities.

## Strategy C1

### Ensuring natural resources security

Malaysia's natural assets such as forest and marine areas, plants and wildlife, as well as minerals will be managed sustainably. Where threat of deforestation or extinction exists, special focus will be given to restock these assets. Legal framework will provide institutional support to conservation efforts and promote rational use of biological resources.

#### Conserving terrestrial and marine areas

Conserving Malaysia's immense natural wealth is the first step to ensuring the sustainability of the biodiversity present in the country. Important biodiversity areas will be gazetted as terrestrial and marine protected areas. Reforestation and forest enrichment efforts will be undertaken in affected areas to improve degraded forests. Measures to reduce illegal deforestation activities and forest degradation will be taken through stricter enforcement. Similarly, relevant measures and strict enforcement will help improve the quality of marine parks as well as water quality throughout Malaysia. Environmental forensics will be implemented to support site investigation, site remediation, and strengthen legal enforcement and resource management.

#### Conserving endangered plant and wildlife species

Biodiversity conservation efforts will be increased by protecting, rehabilitating, breeding and restocking selected endangered plant and wildlife species such as the tiger, sambar deer, elephant, gaur, *keruing layang*, *asam batu* and slipper orchid in its natural habitat (*in-situ*) and outside its natural habitat (*ex-situ*). New methods and technologies, including advanced reproductive technology, will be used to increase the population of endangered species. 1Malaysia Biodiversity Enforcement Operation Network initiatives to curb encroachment into protected areas and poaching of wildlife will be intensified. Examples of Malaysia's endangered species are shown in Box 6-3.

## Box 6-3

## Selected endangered species of flora and fauna in Malaysia

**Malayan Tiger***Panthera tigris jacksoni*

Estimated number:

**250 – 350****Sambar Deer***Rusa unicolor*

Estimated number:

**700 – 1000****Keruing layang***Dipterocarpus sarawakensis*

Estimated number:

**63** trees including saplings*Keruing layang* is found only in Terengganu and Sarawak.**Asam batu***Begonia herveyana* (Begoniaceae)Estimated number: **300** seedlings and saplingsThis species of *asam batu* is found only in Johor and Malacca. Quality of its habitat is rapidly declining.

All of these species are endangered as their population is decreasing due to habitat loss, habitat fragmentation and poaching. As key umbrella species in Malaysia, protecting them means protecting other species as well.

**Malayan Elephant***Elephas maximus*

Estimated number:

**1,220 – 1,680****Gaur***Bos gaurus*

Estimated number:

**270 – 330****Slipper orchid***Paphiopedilum callosum*  
var. *sublaeve*

Estimated number:

As of 2014, about **200** individuals are thought to be present.

This variety is endemic to Kedah. The species is severely threatened by habitat decline and harvesting pressures.

## Managing natural resources

Continuous research to identify the potential and value of natural resources, including minerals, will be undertaken. This will create a comprehensive natural resource inventory database with estimations of national natural resource availability to facilitate better decision-making and determine appropriate actions needed to conserve and use natural resources in a sustainable manner. A holistic regulatory framework to curb the misappropriation of natural resources will be formulated. The Government will finalise the Bill of Access to Biological Resources and Benefits Sharing (ABS Bill) to regulate bioprospecting activities in Malaysia, ensuring that benefits are shared in a fair and equitable manner. The law will establish a transparent framework

allowing users to negotiate mutually agreed terms with providers prior to accessing biological resources. Details on the ABS Bill are in Box 6-4.

## Strengthening biosafety

The Department of Biosafety, Ministry of Natural Resources and Environment (NRE) will be strengthened to increase its capacity and capability in assessing and evaluating harmful effects from emerging and new technology. This is in view of increasing investment and growth in biotechnology, particularly synthetic biology, bioengineering and genetic engineering, including genetically modified organisms (GMOs), which require more sophisticated approaches in biological resource management. Definitions of key terms are shown in Box 6-4.

### Box 6-4

#### Bill of Access to Biological Resources and Benefits Sharing

- Accessing biological resources refers to taking these resources from their natural habitat where they are found or grown, for the purposes of research and development on any genetic resources derivative or biochemical compounds contained in these resources;
- The Ministry of Natural Resources and Environment is finalising the Bill of Access to Biological Resources and Benefits Sharing (ABS Bill) after robust consultation with various stakeholders such as federal and state agencies, NGOs, indigenous and local communities and the private sector;
- The objective of the Bill is to regulate bioprospecting activities in Malaysia and ensure that benefits are shared in a fair and equitable manner; and
- The Bill will provide a transparent framework allowing users to negotiate mutually agreed terms with providers prior to accessing biological resources.

Source: Ministry of Natural Resources and Environment

#### Biotechnology: key definitions

- **Synthetic biology** refers to the design and construction of new biological parts, devices and systems that do not exist in the natural world, or the re-design and fabrication of existing biological systems for useful purposes;
- **Bioengineering or biological engineering** is the use of artificial tissues, organs, or organ components to replace damaged or absent body parts; and
- **Genetic engineering** is the development and application of scientific methods, procedures, and technologies to directly manipulate genetic material and alter the hereditary traits of a cell, organism or population.

Source: Synthetic Biology Project and The American Heritage Science Dictionary 1st Edition

## Strategy C2

### Enhancing alternative livelihood for indigenous and local communities

Indigenous and local communities (ILCs) living on the fringes of protected terrestrial and marine areas and largely dependent on natural resources for their livelihood will be provided with alternative economic opportunities to reduce this dependency and avoid illegal extraction of natural resources from these areas.

#### Enhance ILCs involvement in biodiversity conservation

Active efforts to promote community and civil society participation, especially ILCs, in the planning and management processes of protected areas will be undertaken, including initiatives to proactively engage ILCs in conservation programmes. An example of such an initiative is shown in Box 6-5.

#### Empowering ILCs for alternative economic opportunities

Capabilities of ILCs will be enhanced through participation in training programmes such as language courses, nature guides and entrepreneurship, as well as basic medical and emergency response to prepare them for alternative income generation. Sustainable use and benefits sharing of biological genetic resources and associated traditional knowledge will be promoted by regulatory measures such as the ABS Bill. This will further improve the economic position and independence of ILCs.

#### Box 6-5

### Community involvement in conservation

#### Kelawat Forest Reserve joint forest management initiative

The Sabah Forestry Department initiated a joint forest management initiative in the Kelawat Forest Reserve with 24 families of the Dusun community living in extreme poverty.

The community was allowed to enter and occupy part of the forest reserve in 2014 and use it for rubber agroforestry and fruit tree plantation. In return, they assisted the forestry department with restoring, managing and protecting the reserve, and nurturing dipterocarp trees grown interspersed in plantations.

#### Outcome

- **Three- to fourfold increase in household income** through rubber latex and fruit sales, increasing monthly income of 80% of the households above RM1,000, lifting them from extreme poverty; and
- **Restoration of denuded forest areas**, with forest area rehabilitated and conserved, as well as restoration of biodiversity and watershed functions in denuded areas resulted in enhancement of protection of Kelawat Forest Reserve from encroachment and forest fires.





## Focus area D

# Strengthening resilience against climate change and natural disasters

Increased frequency and intensity of natural disasters due to the adverse impact of climate change has affected the nation. As Malaysia develops socio-economically, it is important to ensure its development gains are not reversed by natural disasters. Resilience of growth is therefore important to ensure the increase in standards of living enjoyed by people today will continue to rise for future generations. The immediate step is to make sure no one is left at risk. Planning and preparing for natural disasters, identifying which areas and communities are at risk and providing the right tools in case such situations occur will be important in preparing a comprehensive disaster risk management (DRM) framework.

The following strategies will be undertaken to reach these objectives:

- **Strategy D1: Strengthening disaster risk management** by establishing DRM policy and institutional framework, improving disaster detection and response capacity, incorporating DRM into development plans and creating community awareness;
- **Strategy D2: Improving flood mitigation** by generating new investments from flood mitigation projects, enhancing long-term planning and strengthening flood forecasting and warning systems; and
- **Strategy D3: Enhancing climate change adaptation** by developing a national adaptation plan, and strengthening resilience of infrastructure, natural buffers including water and agriculture sector as well as creating awareness on health impact.

## Strategy D1

### Strengthening disaster risk management

Increased frequency and intensity of climate-related disasters such as floods, coastal erosion and landslides, compounded by extensive and indiscriminate land use, which has expanded into environmentally sensitive areas, have affected the nation. Therefore, there is an urgent need for a more comprehensive DRM framework to be put in place. This will include hazard and risk management, vulnerability reduction and preparedness, as well as response and recovery. In this regard, the Government will strengthen DRM to arrest and reduce the impact of natural disasters on people and infrastructure. It will also ensure effective and faster response time to communities affected by natural disasters when they occur.

#### Establishing a policy and institutional framework for disaster risk management

The Government will strengthen the policy, regulatory and institutional framework of DRM under the National Security Council (Majlis Keselamatan Negara, MKN). A comprehensive national DRM policy and its related legislation will be formulated, and relevant standard operating procedures will be revised. Concurrently, a national crisis and disaster management centre will be established as the main training centre in Malaysia to conduct training programmes and drills. It will also act as a platform for greater engagement with stakeholders such as DRM related agencies, the private sector, academia, civil society organisations and the *rakyat*. MKN will play a critical role in ensuring a more coordinated, integrated and interconnected approach to managing disasters.

In addition to establishing a DRM framework, the Government will continue to strengthen coordination and collaboration among disaster-related agencies at the federal, state and district levels, including on issues regarding deployment of resources and assets to ensure faster response.

### Improving disaster detection and response capacity

Capacity in disaster detection and early warning will be improved by upgrading detection technology and forecasting systems. Mapping of disaster prone and high risk areas is essential to enhance disaster detection efforts. Capabilities of all parties involved in disaster preparedness, response and recovery including capacity to conduct forecasting analysis will be strengthened to improve response time and effectiveness of DRM.

### Incorporating DRM into development planning

DRM will be reoriented from a cost to an investment and as a prerequisite for cities and infrastructure. Measures will be taken to ensure development complies with existing environmental standards and development guidelines, as well as incorporate climate change considerations into development planning, evaluation, and implementation.

### Improving communications and awareness

Local communities, civil society organisations and the private sector also play an important role in disaster preparedness, response and recovery. Efforts will therefore be taken to enhance awareness, build capacity and empower them to take initial response measures in a disaster. For example, drills in risk prone areas, done on a large scale and involving all sectors can help communities to deal with a natural disaster scenario. Communication strategies and platforms among disaster-related agencies as well as between the Government and the people will be established to enable better coordination and faster response time.

## Strategy D2 Improving flood mitigation

Flood mitigation efforts will be further improved through innovative solutions taking into account the intensity and frequency of extreme weather events.

### Generating investments from flood mitigation projects

The Department of Irrigation and Drainage Malaysia (DID) will use alternative and new technologies, including multifunctional mechanisms, to mitigate floods and encourage investment. For example, retention ponds besides mitigating floods, will also be used as artificial wetlands for water quality improvement, habitat grounds for wildlife and recreational parks. Retention ponds with aesthetic improvements will increase the commercial value of land surrounding the area. Similarly, dams will be constructed for multiple purposes besides flood mitigation, such as power generation, irrigation, water supply and recreation.

The approach to addressing flood mitigation in floodplains and high risk areas will be reoriented, including generating new economic activities, and improving the financial viability of such investments. Developments in such areas, especially construction of buildings and infrastructure, will be based on appropriate design and technology to adapt to floods and extreme weather. A similar approach was adopted by Austrian authorities in the Danube River in Vienna as described in Box 6-6.

### Long-term planning for flood mitigation

In addition, the DID and relevant agencies will strengthen long-term flood mitigation solutions through implementation of Integrated Water Resource Management, Integrated River Basin Management and Integrated Flood Management. This includes the implementation of integrated solutions using a combination of structural components – such as retention ponds, diversion and river improvement works, and non-structural components – such as flood maps, flood warning system, and flood proofing as well as awareness and education programmes. DID will also review existing flood mitigation measures such as bunds and flood levees to cope with higher flood levels. Average recurrence interval in high risk locations will be raised as part of these efforts.

**Box 6-6****Case example: Austria's Danube Island**

The Danube Island, a long, narrow island in central Vienna, Austria, is part of Vienna's highly sophisticated flood protection system. The island is 21.1 kilometres in length and 70 to 210 metres in width and lies between the Danube River and a parallel excavated channel called the New Danube.

The Danube Island serves as an innovative example of protective water management practices in Austria. It is an integrated flood management system, which comprehensively addresses prevention, response and aftercare. The uniqueness of the Danube Island concept stems from its design which aims to achieve the greatest possible safety from floods through meaningful interaction of spatial planning, structural engineering and organisational measures.

**Flood mitigation measures**

The first notable protective measures were taken between 1870 and 1875, when a central bed of 280 metres was dug out and an inundation area of 450 metres created on the river's left bank. In 1970, modifications were made with an additional channel – the New Danube – to replace the former inundation area. This flood control system is designed to bring river flows up to 14,000 cubic metres per second to protect Vienna from flash floods.

**Innovative applications**

However, over the past few decades, the New Danube has been increasingly adapted for other uses beyond flood management. Investments to-date include a 172 megawatt hydroelectric power generation, groundwater augmentation, business centre riverfront development, leisure and recreation spaces. Its multi-faceted development is a prime example of how flood mitigation projects could be adapted for other economic or social purposes.



1975



2009

### Improving flood forecasting and warning systems

An effective flood warning system will be able to improve the accuracy of prediction and provide early warning of impending incidents. This will substantially reduce damage during floods. The Government will upgrade the current flood forecasting and warning system to allow a longer lead time in numerical weather prediction, raising from current three days lead time to seven days, and flood warnings from current six hours to two days lead time.

### Strategy D3

## Enhancing climate change adaptation

Climate change adaptation measures will be enhanced to minimise the impact of increasingly frequent and severe extreme weather events. These measures will reduce risks to socio-economic growth, secure energy, food and water needs, ultimately protecting development gains.

### Developing a national climate change adaptation plan

Climate change impact is cross-sectoral in nature. Effectively addressing its impact requires long-term planning and investments along with integration across many areas including public policy and economic activities. In this regard, NRE will develop a national climate change adaptation plan to provide a coherent framework as well as coordinate and synergise adaptation efforts across relevant ministries and agencies.

Exhibit 6-5

### Rehabilitation of coastal areas in Malaysia, 2005 - 2014

- In the aftermath of the 2004 tsunami, the Government embarked on a rehabilitation programme for coastal ecosystem by replanting mangroves and other suitable species in such areas
- This coastal ecosystem acts as a barrier against natural catastrophes such as tsunamis, coastal erosion, and storm surges, beside enriching Malaysia's natural endowment and biodiversity

**Examples of rehabilitation sites**



2005

➔



2013

**Kampung Sri Menanti Laut, Muar, Johor,**



2009

➔

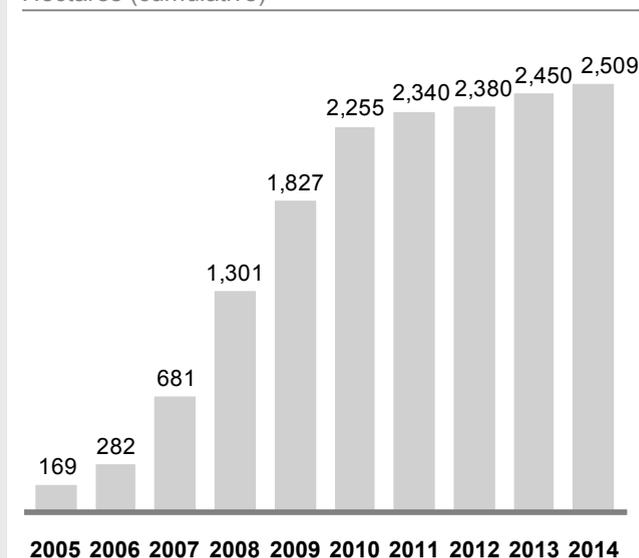


2013

**Pantai Pasir Putih, Selabat, Kuching, Sarawak**

### Areas planted with mangroves and other suitable species

Hectares (cumulative)



### **Building resilient infrastructure**

Building resilience in infrastructure is important in the face of climate change impact. In energy-related infrastructure, due consideration will be given to climate change and environment at the planning, evaluation and implementation stages. Dependency on particular sources, especially polluting or non-renewable ones, will be systematically addressed through introduction of renewable sources. Alternative sources of water such as recycled water, ground water, lakes and reservoirs will be explored to increase the diversity of supply and resilience against potential climate change impacts.

### **Strengthening natural buffers**

Biodiversity, particularly the forest and coastal ecosystems will be conserved to act as natural buffers against the impact of climate change. The Government will strengthen efforts to enhance terrestrial and marine biodiversity through conservation measures. Management of rivers and coastal areas will be improved by adoption of water management guidelines as well as continuation of conservation efforts, particularly mangrove forests and related coastal forest species, as shown in Exhibit 6-5.

### **Increasing resilience of agriculture sector**

Resilience in the agriculture sector is important to secure not only Malaysia's food sources but also economic growth. Research and development, especially in agriculture-climate modelling, will be intensified and adoption of good agricultural practices will be extended to 500 new fruit and vegetable plantations, 160 new farms and 65 new aquaculture farms.

### **Creating public awareness on health impact of climate change**

The objectives of this initiative is to enhance public awareness on climate-related diseases to improve public health. Changes in rainfall and increases in temperature can increase vector capacities, resulting in greater and wider transmission of vector-borne diseases. Focus will be on vector-borne diseases such as malaria and dengue as well as air- and water-borne diseases.

## Conclusion

Climate change continues to be a major threat as it adversely impacts economic and social development gains and deepens economic inequalities. Over-exploitation of natural resources, unsustainable use of land, illegal deforestation, loss of biodiversity, and land-use change will weaken the provision of ecosystem services, increase vulnerability to climate-related disasters, and jeopardise the needs of present and future generations. In the Eleventh Plan, Malaysia is breaking free from the conventional wisdom of development at all costs to green growth, which is a more sustainable path of growth. This will see Malaysia enter the ranks of advanced economies in 2020 with an economy resilient to the adverse impact of climate change and with secure and sufficient supply of natural resources like water, food, and energy. Partnership and shared responsibility across all levels of society, including individuals, will be key to safeguarding the environment and biodiversity. Successful green growth will not only expand economic opportunities, but also enhance inclusivity and reduce disaster risks.



# Strengthening infrastructure to support economic expansion

## Overview

### Highlights Tenth Malaysia Plan, 2011-2015: Achievements

### Looking back Tenth Malaysia Plan, 2011-2015: Progress

Upgrading physical infrastructure to enhance access and connectivity

Developing a people-centric public transport system

Growing logistics and trade facilitation

Increasing broadband coverage and initiating migration to Digital Terrestrial Television

Continuing efforts to restructure the water services industry

Ensuring effective sourcing and delivery of energy

### Summary of focus areas Eleventh Malaysia Plan, 2016-2020

### Moving forward Eleventh Malaysia Plan, 2016-2020

Focus area A: Building an integrated need-based transport system

Focus area B: Unleashing growth of logistics and enhancing trade facilitation

Focus area C: Improving coverage, quality, and affordability of digital infrastructure

Focus area D: Continuing the transition to a new water services industry framework

Focus area E: Encouraging sustainable energy use to support growth

### Conclusion



## Overview

Infrastructure investments lay the foundation for long-term economic growth and quality of life improvements of citizens. Malaysia has historically invested significantly in infrastructure, and therefore today a majority of the *rakyat* have access to essential amenities and services such as transport, communications, electricity, and clean water. Developments in these assets – including roads, rail, logistics, ports and airports, digital infrastructure such as high-speed broadband, connected water services, and electricity supply have helped establish physical and virtual connectivity within the nation, allowing development to flow to all regions, and improving standards of living and productivity nationally. As Malaysia moves closer to its vision of becoming an advanced economy and inclusive nation by 2020, the focus will not only be on further expanding the physical reach of these networks to all communities, but to improve the efficiency, productivity, and affordability of these services, and enhancing user experience. The Government will address issues of streamlining licences and regulations, and strengthen institutional frameworks to improve integrated planning and regulatory oversight of the industry. These efforts will lay the right “software” for infrastructure as new significant investments – from mass rapid transit system, high-speed broadband, expanded sewerage networks to new oil refining capacity – are rolled out in the next five years.

**During the Tenth Malaysia Plan, 2011-2015,** the Government made large investments in transport, digital, and energy infrastructure, in line with rising demand for such assets. Malaysia’s road network grew 68% between 2010 and 2015, plugging more communities into Malaysia’s growth. Two major national ports - Port of Tanjung Pelepas and Port Klang - were in the World’s Top 20 Container

Ports as cargo and container volume in the country grew 23% since 2010. Expansion works were undertaken in these ports to meet this soaring demand. A new runway and terminal were opened in Kuala Lumpur International Airport (KLIA) and passengers grew 46% between 2010 and 2014. Under the National Broadband Initiative, 55,801 km of fibre was rolled out, increasing the broadband penetration to 70.2% of Malaysia's household. Construction on the strategic Pengerang Integrated Petroleum Complex (PIPC) started in 2012 on approximately 9,100 hectares of land, improving energy security for Malaysians.

**In the Eleventh Malaysia Plan, 2016-2020**, the transport and logistics sector will continue to remain a crucial driver of growth – leveraging new investments in road, rail and air services to boost regional development. Expansion of these networks will create new corridors of economic activity. Better integration of these different transport modes will also create seamless connectivity for people and goods. In addition to passenger flows, the Government will work with the private sector to create an integrated logistics, which coupled with an efficient trade facilitation will further boost Malaysia's trade. Digital connectivity will also be expanded through broadband infrastructure roll-out in non-urban areas, bringing connectivity and choice to even more regions and households. In water and sewerage, Malaysia will continue to invest in new networks and treatment plant capacity. Focus will also be given to a holistic non-revenue water reduction programme and improving the performance of the sewerage system. Efforts to expedite migration towards a new licensing regime under the Water Services Industry Act, 2006 (WSIA), will also be undertaken to ensure the sustainability of the water services industry. Energy underpins all these initiatives, and efforts to further strengthen the security of Malaysia's fuel and electricity supplies will be undertaken.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements

**93,100**  
KM

New roads added, increasing total network by 68% between 2010 and 2015<sup>e</sup>

**2.29**

National Road Development Index in 2015 from 1.42 in 2010

**TOP  
20**

Two ports in world's top 20 container port rankings - Port Klang, Selangor (#13); Port of Tanjung Pelepas, Johor (#19)

**46%**

Increase in passengers at KLIA from 2010 to 2014<sup>1</sup>



KLIA2 opened in 2014 and 3rd runway operationalised at KLIA

**32%**

Increase in urban rail ridership from 2010 to 2014

**25**

World Bank Logistics Performance Index ranking rose from 29 in 2013 to 25 in 2014

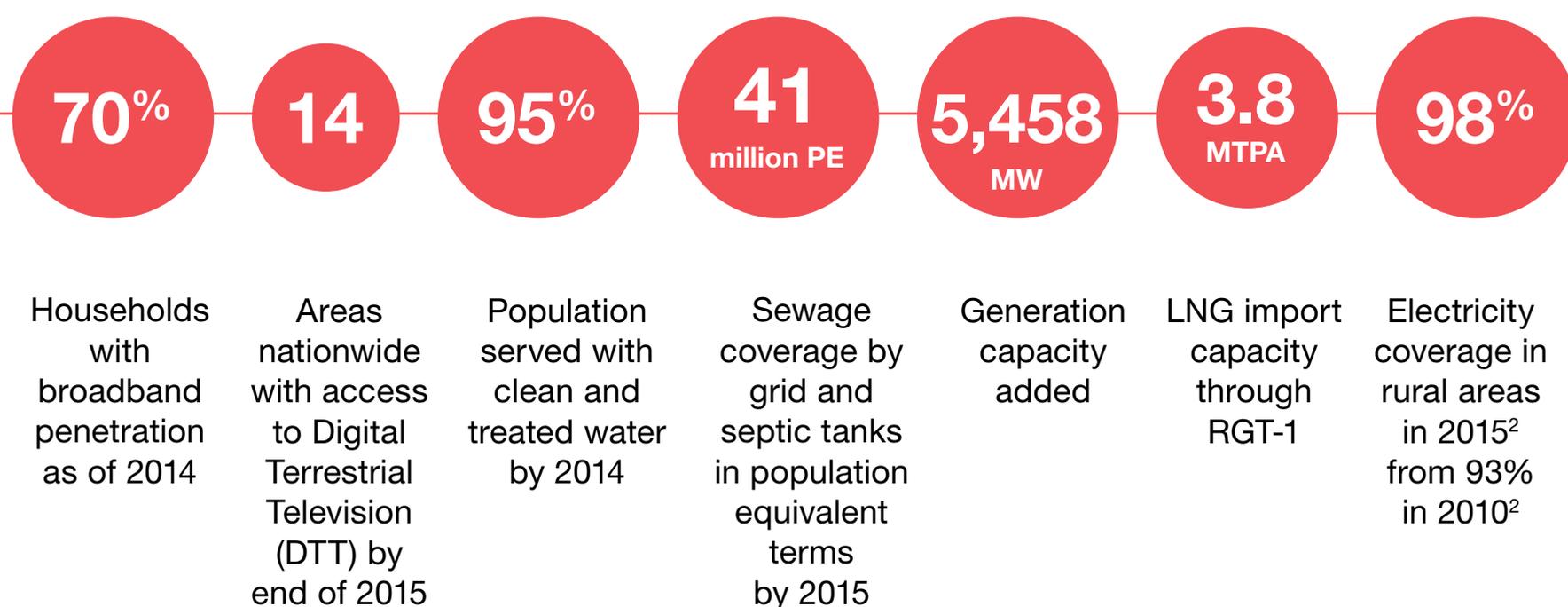
**Upgrading physical infrastructure to enhance access and connectivity**

**People-centric public transport system**

**Growing logistics and trade facilitation**

<sup>e</sup> Estimate

<sup>1</sup> Not including transit passengers



**Increasing broadband coverage and initiating DTT migration**

**Efforts to restructure the water services industry**

**Effective sourcing and delivery of energy**

<sup>2</sup> Actual figure for 2010 is 92.5% and for 2015 is 98.2%.

# Looking back

## Tenth Malaysia Plan, 2011-2015: Progress

Network expansion of essential infrastructure was undertaken to reach more households and meet increasing demand for services such as transport, broadband, water services, and energy.

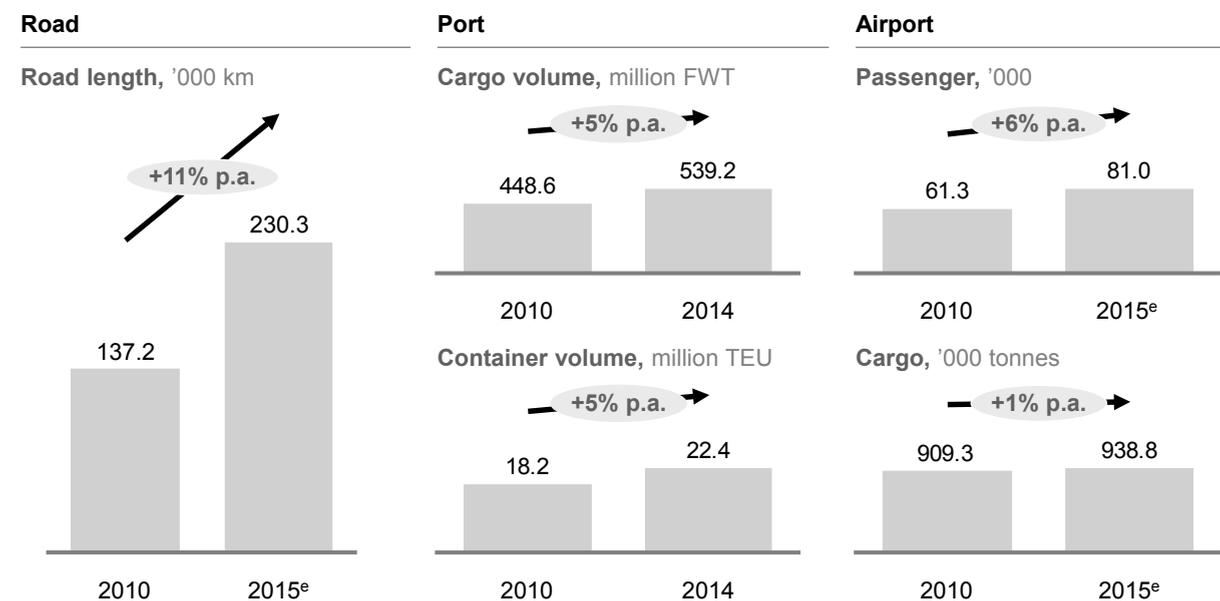
In the Tenth Malaysia Plan, network expansion of essential infrastructure such as roads, rail, water, and electricity, was undertaken to reach more households and improve standards of living. Concurrently, initiatives to develop new infrastructure such as mass rapid transit (MRT), broadband and fibre-optic internet, digital terrestrial television, and renewable energy were started. In addition, institutional framework and regulations were streamlined and strengthened to address sectoral challenges and improve delivery of services.

### Upgrading physical infrastructure to enhance access and connectivity

Road length rose 68% from 137,200 kilometres (km) in 2010 to an estimated 230,300 km in 2015. This resulted in a rise in the National Road Development Index from 1.42 in 2010 to an expected 2.29 in 2015. A total of 4,500 km of rural roads were built under the National Key Result Area (NKRA) programme. During this period, road development focused on improving nationwide linkages for better connectivity. Road maintenance programmes were continuously undertaken with

Exhibit 7-1

### Highlights of road, port, and airport growth



<sup>e</sup> Estimated

Source: Ministry of Transport (MOT), Economic Planning Unit (EPU)

a greater focus on corrective maintenance. Accident-prone spots were improved and pedestrian bridges constructed to improve safety. Details on expanded road infrastructure are included in Exhibit 7-1.

Two Malaysian ports featured in the International Association of Ports and Harbours World's Top 20 Container Ports report in 2013 – Port Klang, Selangor at 13th with 10.4 million twenty-footer equivalent unit (TEUs) and Port of Tanjung Pelepas (PTP) at 19th with 7.6 million TEUs. Between 2010 and 2014, total cargo volume grew 20.2% reaching 540 million freight weight tonnes (FWT) and container volume grew 21% reaching 22 million TEUs. Major projects were undertaken to expand port capacity with addition of new container wharfs at Northport and Westport of Port Klang, PTP, Penang Port, and Kuantan Port. Details on cargo and container volume are included in Exhibit 7-1.

During the Tenth Plan, airports recorded an average annual growth rate of 9.7% for passengers handled, and an increase of 46% in total volume between 2010 and 2014 to 85 million passengers in 2014. In May 2014, KLIA2 was opened as a new low-cost carrier terminal at the Kuala Lumpur International Airport (KLIA) and an additional third runway was

operationalised at KLIA, to facilitate higher aircraft movement. These investments were in line with projected increases in demand, as the Government had ratified the ASEAN Open Skies Agreement in 2013 and also improved connectivity domestically to rural areas. Exhibit 7-1 shows the evolution of passenger and cargo volume in Malaysian airports.

## Developing a people-centric public transport system

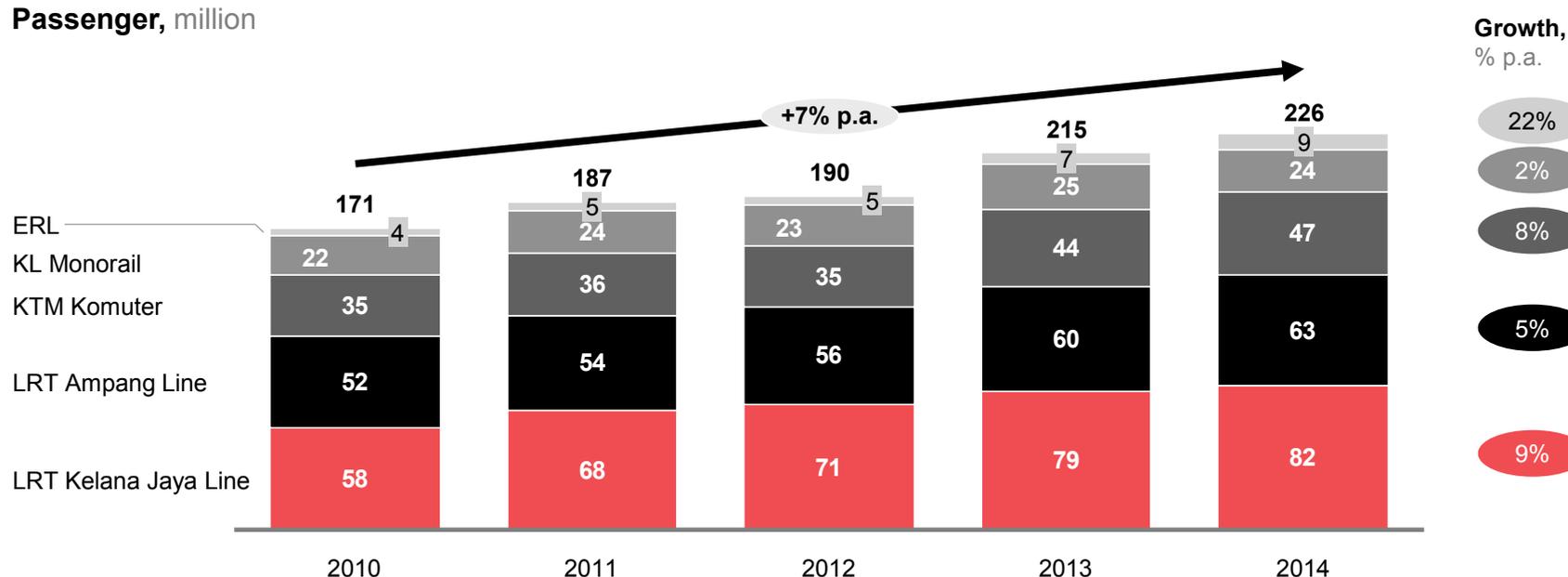
A people-centric public transport system was the main focus of development efforts. Four strategies were implemented - strengthening the regulatory framework, increasing transport capacity, promoting seamless connectivity, and establishing a robust monitoring and enforcement mechanism. The National Land Public Transport Master Plan 2012-2030, was formulated to set the direction for public transport development to achieve a 40% public transport modal share for urban areas by 2030.

Initiatives under the Tenth Plan enabled a 31.7% increase in the annual ridership of urban rail in Greater Kuala Lumpur / Klang Valley (GKL/ KV) - from 171 million in 2010 to 226 million in 2014. These initiatives

Exhibit 7-2

### Greater Kuala Lumpur / Klang Valley rail ridership

Passenger, million



Source: Suruhanjaya Pengangkutan Awam Darat (SPAD)

included comprehensive investments in rail transport, which included upgrading and rehabilitation of existing infrastructure, constructing new rail lines, extending existing lines, and procuring new rolling stocks. New routes added include the Express Rail Link (ERL) extension from KLIA's main terminal to KLIA2 and light rail transit (LRT) extension from Kelana Jaya to Putra Heights and Sri Petaling to Putra Heights. The Klang Valley Mass Rapid Transit (KVMRT) Line 1 from Sungai Buloh to Kajang started in 2012. The KVMRT Line 1 is expected to operationalise in 2017 and will bring greater convenience and connectivity to residents in the Klang Valley. Outside the GKL/KV area, the electrified double-track railway from Padang Besar, Perlis to Gemas, Negeri Sembilan was also completed during this period. Exhibit 7-2 details increased ridership in urban rail in GKL/KV.

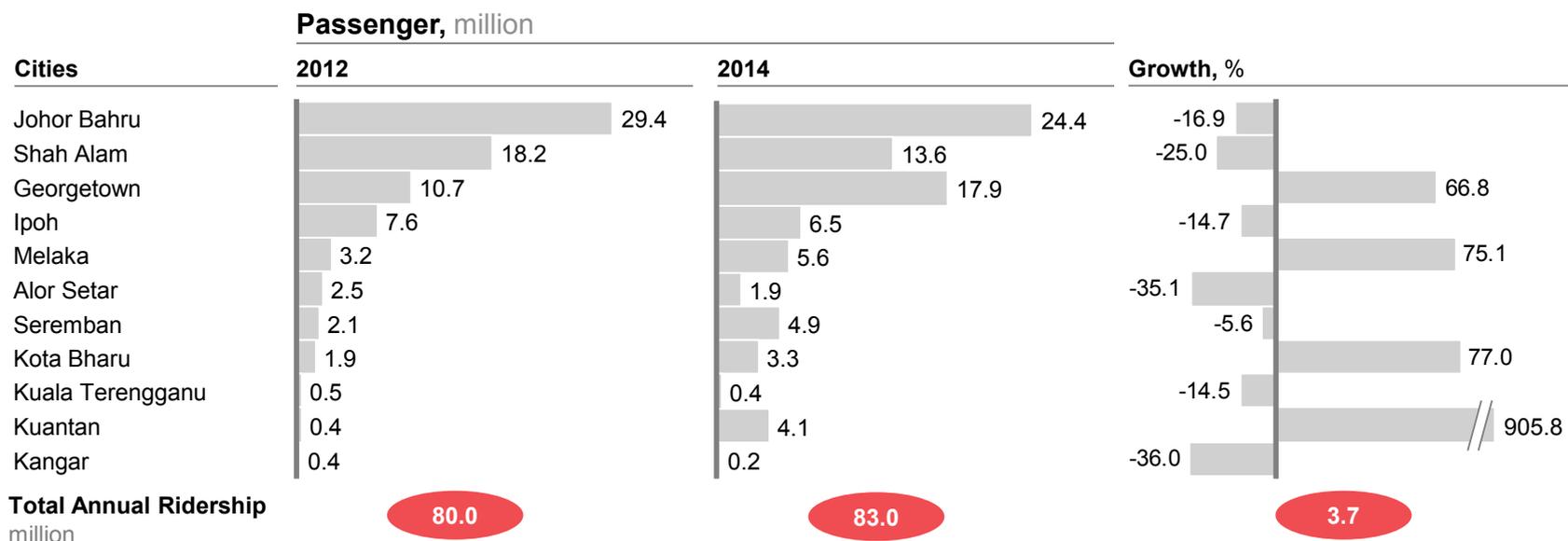
An additional 470 new buses were provided for Rapid KL, Rapid Kuantan, and Rapid Penang, leading to significant increases in passenger ridership. In Georgetown, stage bus ridership increased from 10.7 million in 2012 to 17.9 million in 2014, an increase of 67%, whereas in Kuantan it

rose from 0.4 million to 4.1 million in the same period, a 10-fold rise. The Go-KL free bus service was introduced in 2013 to ease road congestion during peak hours in the Kuala Lumpur central business district. Overall, stage bus annual ridership showed a mixed performance with an increase in four capital cities and a decrease in seven other cities from 2012 to 2014, as shown in Exhibit 7-3.

Integration between transport modes was enhanced by providing first- and last-mile connectivity including extending pedestrian walkways, building parking facilities at terminals, and revitalising inter-urban terminal hubs. The opening of the Terminal Bersepadu Selatan and Pudu Sentral in Federal Territory (FT) Kuala Lumpur improved connectivity between different modes. In the GKL/KV region, the public transport modal share improved from 16.9% in 2010 to 17.1% in 2014, while the morning peak hour ridership increased from 314,965 to 747,859. Network coverage, measured by population living within 400 metres of public transport nodes, improved from 63% in 2010 to 72% in 2014.

Exhibit 7-3

### Stage bus ridership in selected capital cities



## Growing logistics and trade facilitation

Improvements in transport infrastructure and measures to facilitate online trading contributed to increased trade activities, improving Malaysia's ranking in the World Bank Logistics Performance Index from 29 out of 160 countries in 2013 to 25 in 2014. Total freight volume grew 20.7% from 453.7 million tonnes in 2010 to 548 million tonnes in 2014 and total trade increased 23.9%, from RM1.17 trillion in 2010 to RM1.45 trillion in 2014. During the same period, rail freight contributed the highest annual growth rate of 6.3% followed by sea freight at 5.5%. Air freight showed a slight decrease of 0.8% per annum due to limited connectivity, frequency of cargo flights, and low air cargo volume.

## Increasing broadband coverage and initiating migration to Digital Terrestrial Television (DTT)

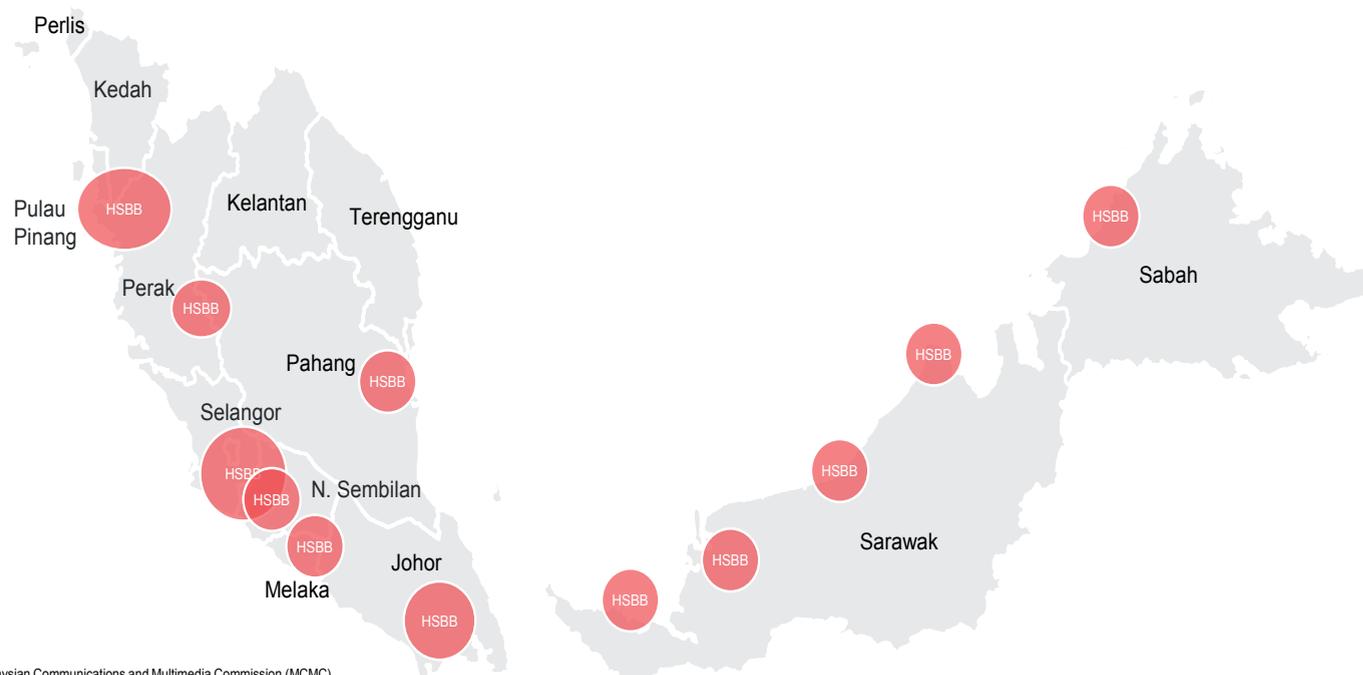
High-speed broadband is critical for economic growth. According to an International Telecommunication Union (ITU) 2012 report, a 10% increase in broadband penetration will contribute 0.7 percentage

points increase in Malaysia's GDP. Under the Tenth Plan, High Speed Broadband (HSBB) and Broadband for General Population (BBGP) were rolled out in several states, raising national broadband penetration from 55.6% in 2010 to 70.2% in 2014. Cities within the HSBB roll-out include Bintulu, Kuching and Miri in Sarawak, and Kota Kinabalu and Menggatal in Sabah. This contributed to an increase in broadband penetration in these states from 40.2% and 25.6% respectively in 2010 to around 67% in 2014. States such as Kuala Lumpur, Melaka, Perak, Selangor, Pahang, and Johor achieved more than 70% household broadband penetration. Exhibit 7-4 shows the areas covered by HSBB during the Tenth Plan.

ICT infrastructure in the public sector, previously managed by individual ministries, was consolidated into 1Gov\*Net in 2012, a centrally managed dedicated network connecting 10,552 out of 11,268, nearly 94%, of all Federal Government buildings. Under the 1BestariNet programme, efforts were made to provide connectivity to schools to support teaching and learning. A total of 10,132 schools were connected through fibre (nine schools), WiMAX (6,628 schools),

Exhibit 7-4

### Area covered by HSBB I



Source: Malaysian Communications and Multimedia Commission (MCMC)

Asymmetric Digital Subscriber Line (ADSL, 1,086 schools), Very Small Aperture Terminal (VSAT, 2,129 schools), and wireless (280 schools).

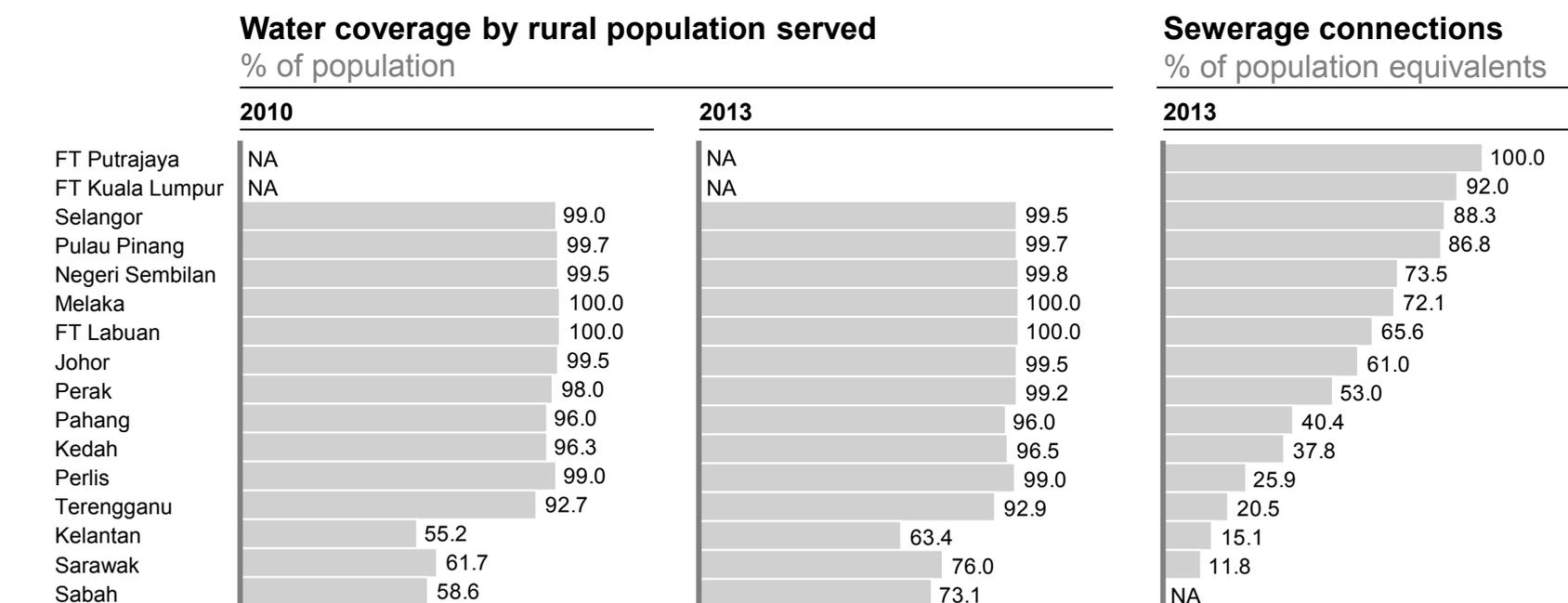
In keeping pace with technological development, Free-to-Air Digital Terrestrial Television (DTT), offering digital television and radio services is scheduled to be launched by end of 2015. The first phase is expected to be rolled out in 14 areas nationwide including four areas in Sabah and Sarawak. Other services will be made available after the Analogue Switch Off (ASO) scheduled to start in 2016.

## Continuing efforts to restructure the water services industry

The water services industry comprises both water and sewerage services. As of April 2015, six states have migrated to the new licensing regime in line with the WSIA. The remaining five states namely Kedah, Kelantan, Pahang, Selangor, and Terengganu are expected to migrate during the Eleventh Plan. Sewerage services, which are part of the WSIA, are yet to be integrated.

*Exhibit 7-5*

### Water and sewerage services coverage



Source: EPU, Suruhanjaya Perkhidmatan Air Negara (SPAN)

## Connecting communities to water supply

At the end of the Tenth Plan, Malaysia enjoyed a high level of connectivity to treated water. As of 2014, 95.1% of the population was served with clean and treated water supply, rising from 94.2% in 2010. Most states recorded more than 99% coverage in urban areas – the only exception being Kelantan at 59.5%. Rural coverage for Kelantan, Sabah and Sarawak remained below 80%, as seen in Exhibit 7-5.

Despite efforts to improve management of water supply and its distribution, the rate of non-revenue water (NRW) increased from 36.3% in 2010 to 36.6% in 2013. This is due to the lack of enforcement, limited district metering zones to monitor water pressure and detect burst pipes as well as slow replacement of pipes and meters. NRW rate was highest in Perlis at 62.4% and Sabah at 53.2%. While water and sewerage services are well developed in urban areas, these services could be further strengthened for rural areas.

24 new water treatment plants were completed and commissioned while 38 treatment plants were upgraded, increasing production

capacity to 18,421 million litres per day. In addition, upgrading of the Mengkuang Dam in Pulau Pinang and distribution networks in the Federal Land Development Authority (FELDA) settlement areas in Pahang commenced. The National Key Results Area (NKRA) programme provided clean and treated water networks to 320,000 rural households. These initiatives expanded coverage of clean and treated water networks and ensured security of supply.

### Extending sewerage coverage

The capacity of sewerage services by grid and septic tanks is expected to increase from 36.2 million population equivalent (PE)<sup>3</sup> in 2010 to 40.7 million PE by end of the Tenth Plan. Connected sewerage services will increase to 3.4 million accounts by 2015 with a handling capacity of 26.1 million PE. Sewage volume for connected services increased from 22.4 million PE in 2010 to 24.6 million PE in 2013, representing 63% of total PE volume. In addition, construction of seven regional and centralised treatment plants including the Pantai 2 Sewage Treatment Plant (STP) in FT Kuala Lumpur and Langat STP in Selangor commenced.

## Ensuring effective sourcing and delivery of energy

The security of energy supply improved to meet increased energy demand. Efforts were undertaken to ensure the long-term sustainability of the energy sector through resource diversification, continuous investments in new infrastructure, and technology enhancement. In addition, the improvement in productivity and efficiency as well as the implementation of efficient resource utilisation measures were also undertaken.

### Oil and gas

Petroleum reserves stood at 22.6 billion barrels of oil equivalent (boe) comprising 5.8 billion boe of crude oil and 16.8 billion boe of natural gas in 2014. Average production of domestic crude oil and condensate decreased from 667,000 barrels per day (bpd) in 2006 to 576,000 bpd in 2013. At 2013 production level, domestic crude oil including condensate would have a reserve life of 28 years. An average Overall Resource Replenishment Ratio (ORRR)<sup>4</sup> of 1.94 from 2011 to 2013 was

achieved, and attributed to continuous investments by PETRONAS in the upstream exploration and production. For the downstream subsector, the total refining capacity has remained at 635,000 bpd since 1998, fulfilling most domestic demand. Exhibit 7-6 shows trends in Malaysia's oil and gas production since 2000.

The production of natural gas increased at a compound annual growth rate of 6%, as seen in Exhibit 7-6. The discovery of new gas fields grew reserves from 90 trillion cubic feet (tcf) in 2011 to 98.3 tcf in 2012. The Regasification Terminal 1 (RGT-1) in Sungai Udang, Melaka, with a capacity of 3.8 million tonnes per annum (mtpa) began operations in 2013. The increase in supply capacity enabled the demand of 2,419 million standard cubic feet per day (mmscfd) of gas in Peninsular Malaysia to be met. Construction of RGT-2 in Pengerang, Johor commenced in 2015 and when completed in 2017, will increase the supply level to 2,900 mmscfd.

During the Tenth Plan, several projects in the downstream oil and gas subsector were initiated to ensure the security and sustainability of energy supply. Development of the Pengerang Integrated Petroleum Complex (PIPC) on approximately 9,100 hectares of land, which includes the PETRONAS Petroleum Integrated Complex Project and DIALOG-Vopak Deepwater Petroleum Terminal, started in 2012. The deep water petroleum terminal, which started operations in April 2014, has a storage capacity of 1.3 million cubic metres for both crude oil and petroleum products. In addition, expansion of the liquefied natural gas (LNG) plant in Bintulu, Sarawak, which began in 2013, is expected to add 3.6 mtpa of LNG production.

### Electricity

To ensure the reliability of electricity supply, a total of 5,458 megawatts (MW) of capacity was added into the system, with the commissioning of 10 power plants. Among these were the Bakun Hydroelectric in Sarawak as well as Kimanis and SPR gas-fired power plants in Sabah with a total capacity of 2,785 MW. In terms of fuel mix, the share of coal in the total generation mix is expected to increase from 41.6% in 2010 to 43.0% in 2015, while natural gas is expected to decline from 51.5% to 40.1%.

<sup>3</sup> PE is an estimate unit of usage made of sewage facilities. For residential areas PE is calculated as five per household.

<sup>4</sup> ORRR is an indicator to measure discovered reserves versus production where a ratio of 1.0 and above is healthy.

Transmission and distribution systems were further expanded to improve the quality of services and meet growing demand. The transmission projects linked generation plants to the main grid, providing connections to industrial and commercial areas. These included the Air Tawar-Bukit Merah in Perak, Bukit Kapar-Meru in Selangor, Kimanis-Lok Kawi in Sabah, and Bakun-Similajau in Sarawak. The distribution network was also expanded to provide access to new development areas and to extend electricity supply to rural areas such as distribution substations in Indahpura (Johor), Enoe (FT Labuan), and Labuk (Sabah).

Improvements were recorded in the productivity and efficiency of electricity supply services. Tenaga Nasional Berhad (TNB), Sabah Electricity Sdn. Bhd. (SESB), and Sarawak Energy Berhad (SEB) registered improved performance in reducing the number of interruption incidences based on the System Average Interruption Duration Index (SAIDI) as shown in Exhibit 7-7. The supply of electricity to rural areas increased from 92.5% in 2010 to 98.2% in 2015. The implementation of rural electrification projects, mostly through grid connection, benefited

115,153 houses, mainly in Sabah and Sarawak. Alternative systems such as mini hydro, solar hybrid, and biomass were utilised in remote areas.

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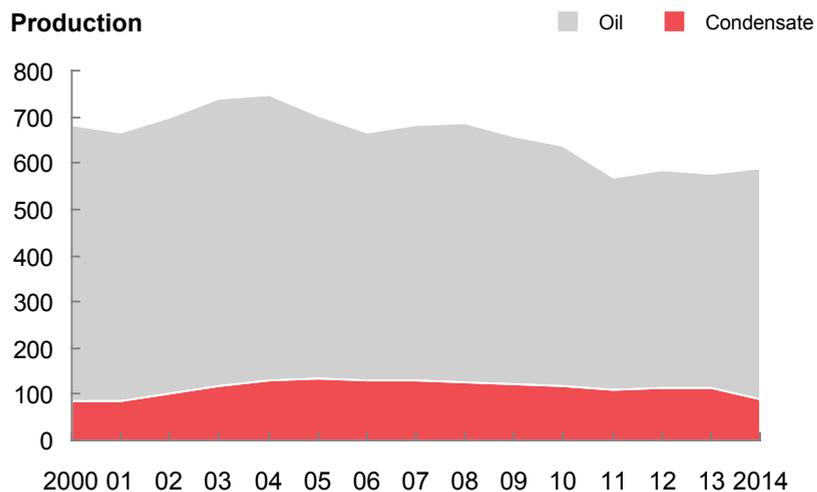
Despite the progress achieved in the Tenth Plan, provision of reliable transport, logistics, digital infrastructure, utilities, and energy supply will become more challenging to ensure sustained robust economic growth. The key challenges in the transport sector include road congestion in urban areas, inadequate public transport, capacity constraints in ports, institutional limitations in civil aviation, and bottlenecks in logistics. Digital infrastructure roll-out in rural areas still faces cost and coverage challenges due to the high cost of broadband deployment and low return on investment. With respect to water supply, the key issues are the high NRW rate, low coverage in rural areas, high operational cost, and lack of financial sustainability of the water service operators. In the energy sector, the issues include fragmented governance, security and reliability of supply, market distortion, lack of regulatory framework, and overdependence on fossil fuels.

Exhibit 7-6

## Oil and gas production from 2000 to 2014

### Crude oil and condensate production

'000 bpd



Source: Petroliaam Nasional Berhad

### Gas production

mmscfd

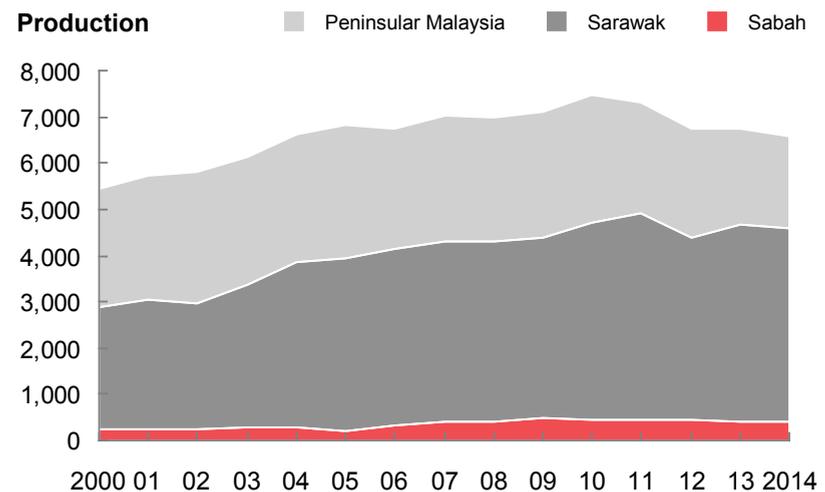
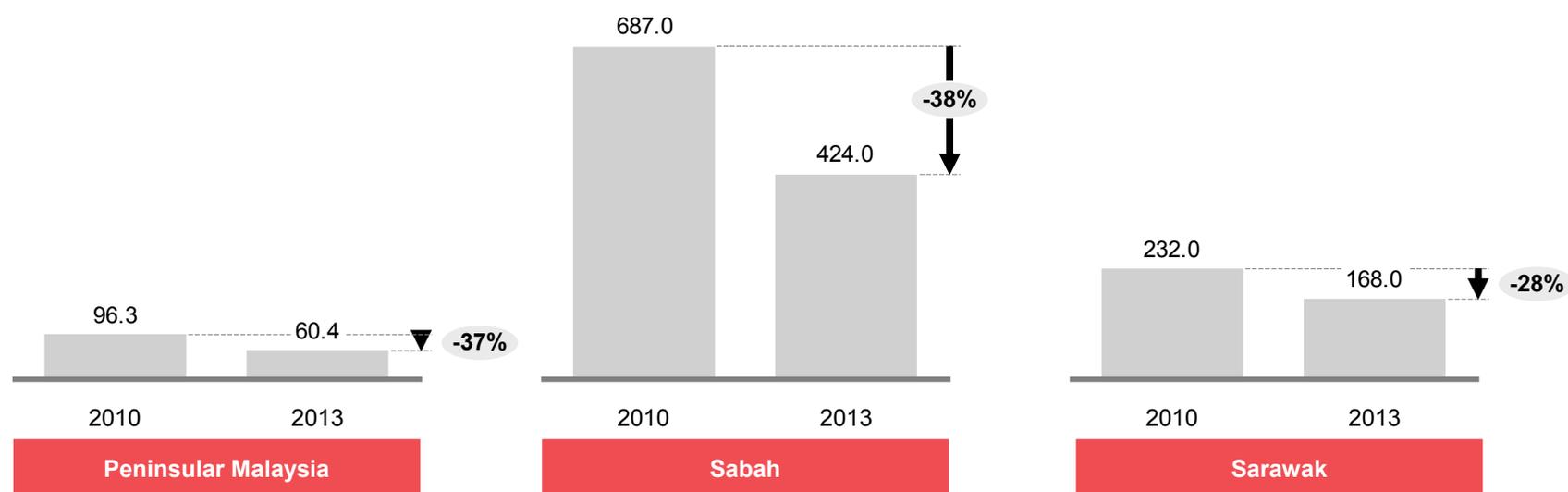


Exhibit 7-7

## Reliability of electricity supply from 2010 to 2013

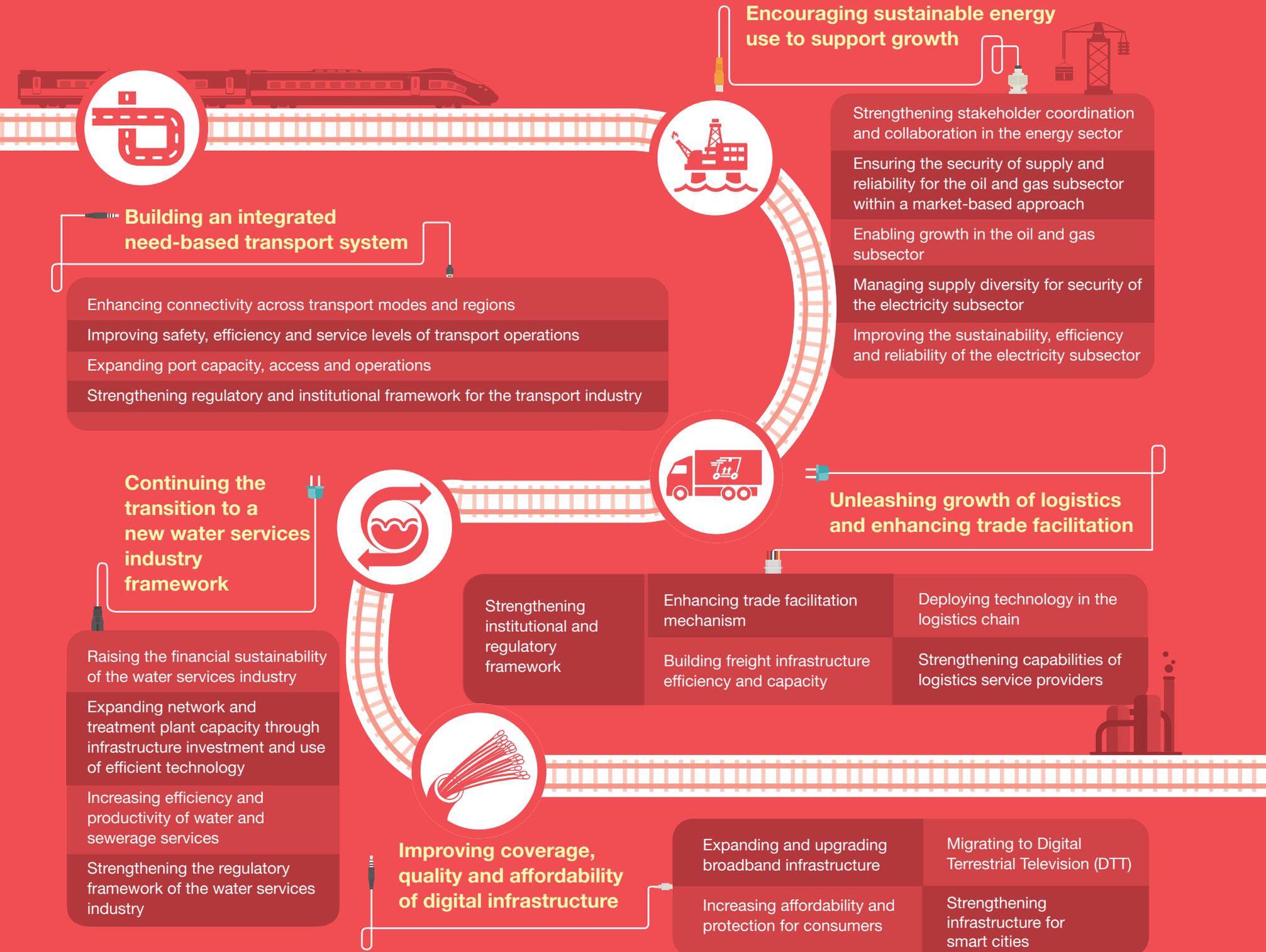
**System Average Interruption Duration Index, minutes per customer**



Source: Ministry of Energy, Green Technology and Water, Energy Commission, and Sarawak Energy Berhad

# Summary of focus areas

## Eleventh Malaysia Plan, 2016-2020



# SELECTED OUTCOMES



# Moving forward

## Eleventh Malaysia Plan, 2016-2020

In the Eleventh Plan, focus will not only be on expanding the physical capacity and reach of infrastructure networks, but improving their performance, productivity, and affordability. The aim is to not only bring such amenities to all households, urban or rural, but make these services befitting of an advanced economy and inclusive nation by 2020.

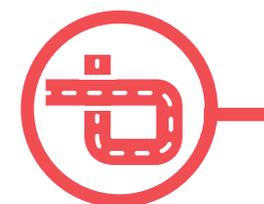
The Eleventh Malaysia Plan will strengthen the foundation of economic expansion and provide an enabling environment to support growth. Initiatives will be undertaken to provide a seamless transportation system and enhance mobility of people, targeting a 40% public transport modal share in the GKL/KV region and 20% in other state capitals. Rural, rural-urban and inter-city connectivity will also be strengthened through enhanced bus, rail and air services. Movement of goods will also become increasingly important as trade plays a significant role in Malaysia's economic growth. The logistics industry will therefore be strengthened. By 2020, Malaysia is targeting an 8.5% annual growth rate of the transport and storage subsector, along with a place in the top 10 of the World Bank Logistics Performance Index.

Beyond physical connectivity, digital infrastructure will not only be vital in bringing people together through communication channels, but lay the foundation of economic development through knowledge-intensive industries. To achieve this, the reach of broadband infrastructure to 95% of populated areas is targeted, along with its affordability - targeting 1% of gross national income (GNI) per capita for fixed broadband cost. Key infrastructure roll-out initiatives such as High-Speed Broadband 2 (HSBB 2), Sub-Urban Broadband (SUBB), and Digital Terrestrial Television (DTT) will be undertaken during this period, along with policies to improve access pricing and consumer protection frameworks.

Essential amenities like water services and energy continue to remain critical in directly impacting the quality of life of citizens. In these sectors, expanding network reach especially in rural areas, improving the reliability and efficiency of services, and enhancing the financial sustainability of the sector, are main areas of focus. By 2020, the Government aims to provide 99% of the population with clean and treated water, 80% with connected sewerage services and reduce non-revenue water to 25%. In energy sector, 7,626 MW new generation capacity will be installed in Peninsular Malaysia, along with 300,000 bpd refining capacity at PIPC, providing security to Malaysia's energy needs.

The focus areas are summarised as follows:

- Focus area A: Building an integrated need-based transport system
- Focus area B: Unleashing growth of logistics and enhancing trade facilitation
- Focus area C: Improving coverage, quality, and affordability of digital infrastructure
- Focus area D: Continuing the transition to a new water services industry framework
- Focus area E: Encouraging sustainable energy use to support growth



## Focus area A

# Building an integrated need-based transport system

Transportation is a vital lifeline for both urban and rural communities in Malaysia. It ensures that people from all walks of life are able to access and broaden their activities in pursuit of jobs, recreation, and daily necessities. Under the Eleventh Plan, the Government aims to continue to provide sufficient and affordable access to transportation to allow for a safe, efficient, and fast flow of people and goods within Malaysia – especially across rural and urban areas – and internationally. These aspirations will be achieved through four strategies:

- **Strategy A1: Enhancing connectivity across transport modes and regions** through greater connectivity across regions and modes, promoting public transport in both rural and urban areas, and optimising transport planning;
- **Strategy A2: Improving safety, efficiency, and service levels of transport operations** by shifting to preventive maintenance, improving road and rail safety, and upgrading air navigation and airport infrastructure;
- **Strategy A3: Expanding port capacity, access, and operations** through the National Port Policy, a port community system, and improving port accessibility and capacity; and
- **Strategy A4: Strengthening regulatory and institutional frameworks for the transport industry** through introducing a national transport model and establishing the Malaysian Aviation Commission.

## Strategy A1

### Enhancing connectivity across transport modes and regions

Comprehensive and efficient public transport connectivity is an enabler for sustained economic prosperity. To elevate public transport as the preferred mode of commute, it has to be made available and must prove to be reliable and convenient for users. Investments will therefore be made in rural, rural-urban, urban, and intercity transport modes. These efforts will reduce dependency on private vehicles, traffic congestion and air pollution.

#### Prioritising regional connectivity for new highways

To achieve a balanced economic development, highway development will be focused outside the Klang Valley and other urban areas. The Eleventh Plan will therefore focus on rural and rural-urban connectivity. The Pan Borneo Highway will promote better connectivity in Sabah and Sarawak. Further development of the Central Spine Road, Kota Bharu-Kuala Krai Highway, and the Lebuhraya Pantai Timur will improve connectivity in Peninsular Malaysia and catalyse growth in the east coast region. The completion of the West Coast Expressway in 2019 will also provide better access to the west coast of Perak and Selangor. A comprehensive needs analysis will be adopted in road planning to ensure effective decision-making on whether to upgrade existing roads or construct new ones.

## Box 7-1

**Klang Valley Mass Rapid Transit (KVMRT)****Line 1: Sungai Buloh to Kajang**

- 51 km MRT system
- 31 stations with expected ridership of 400,000 people per day
- 3.5 minutes service intervals
- Construction started in 2012
- Phase 1: Sungai Buloh to Semantan, expected operations in 2016
- Phase 2: Semantan to Kajang, expected operations in 2017

**Line 2: Sungai Buloh to Serdang to Putrajaya**

- 52.2 km MRT system
- 2016 construction expected to start, with completion in 2022



Source : MRT Corporation

**Increasing public transport modal share in cities**

Improving urban public transport remains critical for Malaysia as 75% of its population will be living in cities by 2020. Public transport modal share in GKL/KV was 17.1% in 2014. The Government aims to raise this to 40% by 2020, and 20% in other capital cities. To increase public transport modal share by commuters, investments in new infrastructure, along with greater intermodal integration will be undertaken to ensure seamless travel. Suitable public transport modes will be developed based on travel demand.

The Klang Valley Mass Rapid Transit (KVMRT) system will become operational during the Eleventh Plan. The KVMRT Line 1 will traverse 51 km between Sungai Buloh and Kajang, through 31 stations serving about 1.2 million people with a daily expected ridership of 400,000 as shown in Box 7-1. Construction on KVMRT Line 2 will also start in 2016 and is estimated to become operational by 2022. Additionally, construction on a Light Rail Transit (LRT) Line 3 connecting Bandar Utama to Klang, running over 36 km and serving 25 stations will start in 2016 with expected completion in 2020.

KTMB is the sole operator of intercity rail services and offers public transport options. KTMB will continue its transformation exercise to improve overall operations, including organisation structure, route rationalisation, and review of fare and freight charges, to provide a better service to the public. Service reliability and operational performance will be improved by addressing engineering issues, rolling stock management, and infrastructure maintenance.

**Deploying roads and public transport to increase rural and rural-urban connectivity**

Rural roads linking the main road networks will continue to be given focus. These roads provide access to basic social amenities such as health, education, and other public services. Rural roads will also create economic opportunities for the residents and further alleviate poverty among the rural households. Bus networks will complement rail networks to provide efficient last-mile connectivity. Express bus services will be rationalised to make it efficient, safe, and sustainable. Its network will be restructured to provide more regular and frequent services, taking into account low demand areas.

Beyond roads, an efficient public transport service is important to facilitate mobility within, and to urban centres. This improves accessibility to social amenities and promotes economic activities. In this regard, the Stage Bus Services Transformation (SBST) Programme will be extended to rural areas and provide greater coverage. Alternative community-based public transport service

such as minivans, and the use of private vehicles, will be considered for remote areas. Box 7-2 provides details on the SBST Programme.

The Government will continue to enhance connectivity and safety of rural air services by improving short take-off and landing airstrips (STOLports). The construction of a new airport in Mukah will be completed in 2018 and the relocation of Lawas STOLport in Sarawak to a suitable site will be carried out. MASwings, the designated community airline for Sabah and Sarawak, will utilise the new ATR 72

and Viking aircrafts to improve its efficiency. Currently there are 49 RAS routes which serve communities across Sabah and Sarawak as shown in Exhibit 7-8. These routes will be rationalised to ensure that support on rural air services is targeted towards the right areas.

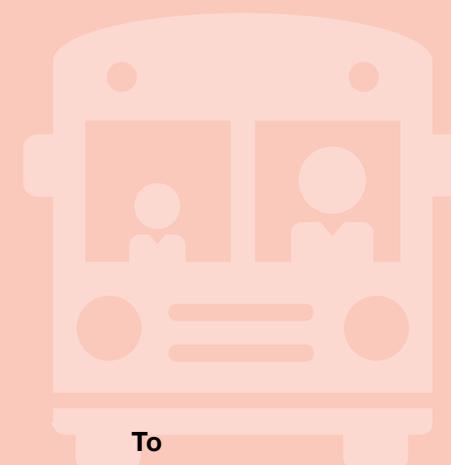
### Optimising transport planning

The transit-oriented development (TOD) concept will be promoted to optimise land use and public transport infrastructure planning. TOD concepts will be expanded in urban areas to maximise access

#### Box 7-2

### Stage Bus Services Transformation Programme

The SBST Programme is an ambitious effort to completely transform the stage bus business model towards financial self-sustainability and increased levels of service for commuters. The SBST will be rolled out in phases starting in 2015 across Seremban, Kuching, Kangar, Ipoh, and Kuala Terengganu and extending to other cities and rural areas during the Eleventh Plan. Major shifts under the SBST Programme include:



	From	To
<b>SUSTAINABILITY</b>	Bus operators dependent on fare box collection only	Gross cost service delivery contract model where operators are paid per kilometre of service provided
<b>ACCESSIBILITY</b>	Areas without sufficient ridership are underserved in terms of availability of service and frequencies of service	Minimum level of accessibility provided based on network and service levels determined by the regulator
<b>SERVICE QUALITY</b>	Large variance in quality of service across various operators, and across regions	Stringent performance monitoring through global positioning system (GPS) and geo-fencing data to track reliability, on-time performance, safety and other key indicators

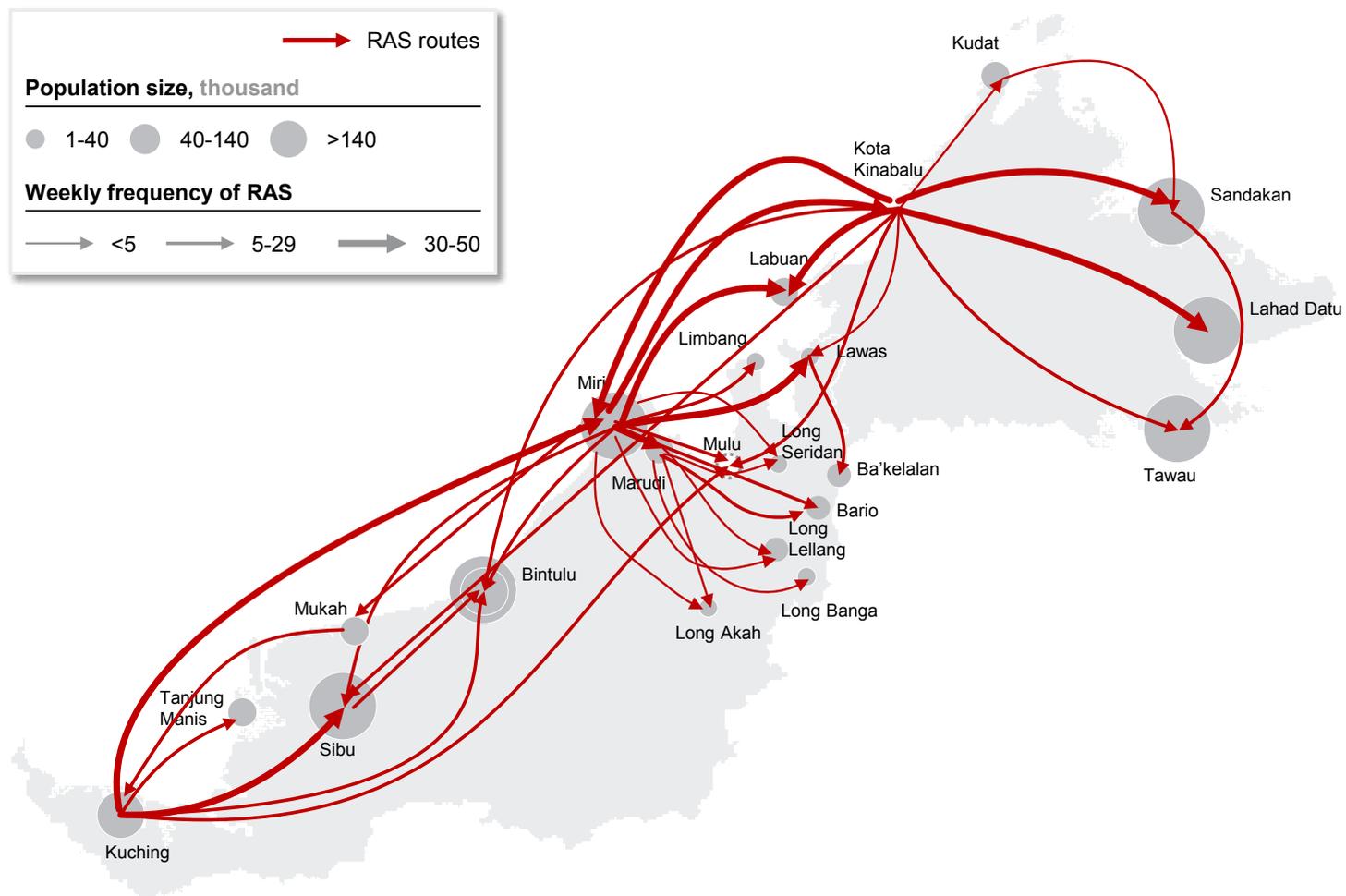
to quality public transport and to attract private investments for commercial and residential purposes. This will help reduce traffic congestion and improve air quality, making cities more liveable.

Planning for development of road and rail networks will be integrated, to promote a multimodal transport system. Mechanisms for regular

engagement between stakeholders and transport planners will be established to avoid fragmented planning. Efforts will be undertaken to promote the modal shift from road to rail in transporting cargo between hinterland and ports.

Exhibit 7-8

### Rural air services routes



Source: MOT

## Strategy A2

### Improving safety, efficiency, and service levels of transport operations

Strategies to expand Malaysia's transport network and enhance intermodal integration must be further complemented by efforts to improve the system's safety and efficiency as well as user's level of comfort. This approach will encourage commuters to trust and use the public transport options available to them, move away from private transport, and create a more equitable and environmentally sustainable transport system.

#### Shifting towards preventive maintenance

Maintaining assets in good condition is crucial to ensure the road and rail network continues to be effective, and functions to required standards throughout its lifespan. Road maintenance programmes will focus on preventive maintenance by adopting a life-cycle costing approach. Utilisation of advanced materials and innovative technology in road construction and maintenance will be intensified to ensure durability of road infrastructure. Maintenance of rail assets will focus on refurbishment of rolling stocks and replacement of tracks and sleepers.

#### Improving road and rail safety

Road and rail safety will be improved during the Eleventh Plan. Blackspot Mitigation Programme and Road Safety Audit will be intensified to reduce road accidents and fatalities. This will reduce road fatalities by 50% by 2020 as per the recommendations of the United Nations Decade of Action for Road Safety 2011-2020. Response time to address road hazards, including landslides and potholes, will be shortened. Rail safety for heavy rail will be enhanced through track upgrading, electrification, signalling and communication system improvement, as well as rolling stocks replacement.

#### Upgrading air navigation system and airport infrastructure

A new Kuala Lumpur Air Traffic Control Centre will be built at KLIA to replace the National Control Centre at Subang, Selangor to improve aircraft movement capacity. In addition, the Communication, Navigation and Surveillance as well as the Air Traffic Management systems will

be upgraded to improve efficiency of air navigation services. This will increase aircraft movements from 68 movements per hour to 108 movements to strengthen KLIA as the main gateway. The Langkawi International Airport, Kedah and the Sultan Ismail Petra Airport, Kelantan will be upgraded to cater for the expected increase in passengers.

## Strategy A3

### Expanding port capacity, access, and operations

As Malaysia integrates further into the ASEAN Economic Community and the global economy on the whole, economic growth through trade and exports will necessitate greater capacity and efficiency of its port infrastructure. To address this, attention will be given to expanding capacity of ports and address issues in congestion.

#### Implementing the National Port Policy

The National Port Policy will be implemented to foster systematic development and growth of ports and jetties by introducing comprehensive strategy and policy measures. The policy will provide a regulatory framework for further developments in capacity, and will improve efficiency by streamlining the functions of all ports and jetties. Major hub ports will be strengthened by networks of secondary ports to improve competitiveness of the national logistics chain. In addition, port development will take into account land use planning to ensure the sustainable growth of major ports.

#### Creating a port community system

A single communications platform will promote information sharing among ports and private stakeholders such as logistics firms and customs agents. All port authorities will be required to establish their port community system (PCS), an open electronic system that enables intelligent and secure information exchange between public and private stakeholders. PCS optimises, manages, and automates port and logistics processes through a single window for interaction. This will improve the efficiency of port operations and competitiveness while strengthening strategic alliances among stakeholders.

### **Improving port accessibility and capacity**

Accessibility to major ports will be improved to cater for bigger vessels through channel deepening works. In addition, port operators will undertake capacity expansion, which includes building additional berths and wharfs. These improvements will attract more international liners and mega vessels with capacity of 18,000 TEUs to call at these ports.

## **Strategy A4**

### **Strengthening regulatory and institutional framework for the transport industry**

Greater attention will be given to strengthen the institutional and regulatory framework for public transport, port, and civil aviation. This will ensure that development in these sectors is planned, structured, and systematic to remain competitive and sustainable.

#### **Introducing a national transport model**

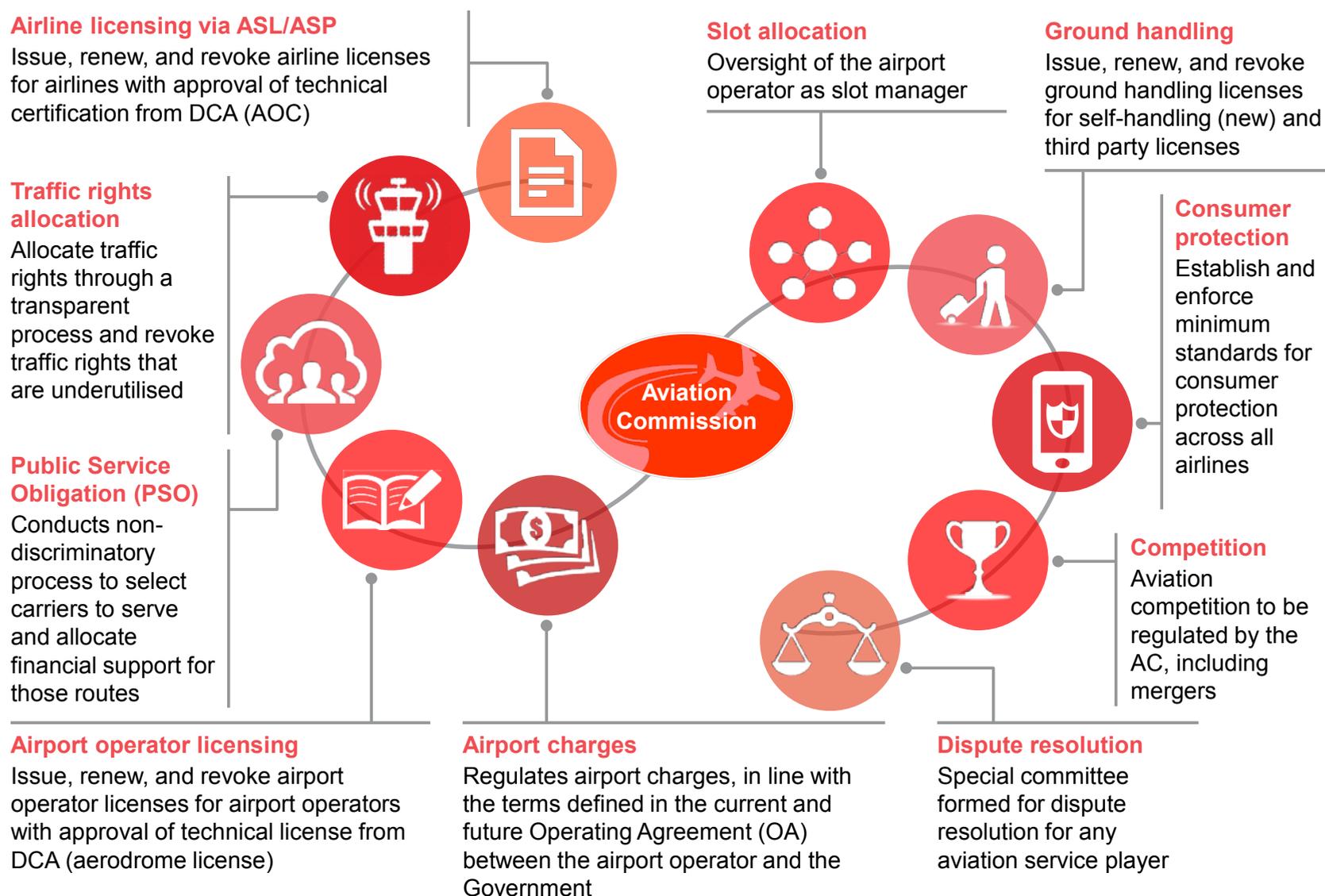
A national transport model will be introduced to strengthen inter-agency collaboration in formulating integrated transport policies. This will facilitate demand and capacity assessments of new transport infrastructure based on current and future development needs.

### **Establishing the Malaysian Aviation Commission**

The incorporation of the Malaysian Aviation Commission in July 2015, an independent regulatory body, will enable a more structured and systematic aviation industry. The responsibilities of the commission include economic regulation and consumer protection as shown in Exhibit 7-9. It will also undertake policy and planning functions to manage capacity and competition via licensing, route allocation, and streamlining airports according to its hierarchy. The Department of Civil Aviation (DCA) will continue to serve as the technical, safety, and security authority. The possibility of corporatising DCA will be assessed during the Eleventh Plan.

Exhibit 7-9

## Roles of the Malaysian Aviation Commission



Source: Malaysian Aviation Commission Bill, 2015



## Focus area B

# Unleashing growth of logistics and enhancing trade facilitation

Efficient and high-performing logistics and trade facilitation are important determinants of a country's competitiveness, as well as an important source of employment. Malaysia has a high aspiration to become the preferred logistics gateway to Asia, and improve its ranking in the World Bank Logistics Performance Index from top 25 in 2014 to be among the top ten by 2020. Exhibit 7-10 shows Malaysia's current performance compared to selected regional peers. By 2020, Malaysia aims to achieve an annual growth of 8.5% for the transport and storage subsector, creating an additional 146,000 jobs, mostly high-skilled. These aims will be met through the following strategies:

- **Strategy B1: Strengthening the institutional and regulatory framework** through the National Logistics Task Force (NLTF) and regulating other functions such as off-dock depots, warehousing activities, and commercial vehicle registrations;
- **Strategy B2: Enhancing trade facilitation mechanisms** through collaboration to reduce cargo clearance time and greater paperless trading;
- **Strategy B3: Building freight infrastructure efficiency and capacity** by improving last-mile connectivity at Port Klang and expanding air and rail freight infrastructure;
- **Strategy B4: Deploying technology in the logistics chain** through development of virtual selling platforms and supporting logistics infrastructure for e-commerce; and
- **Strategy B5: Strengthening the capabilities of logistics service providers** through training and accreditation programmes.

## Strategy B1

### Strengthening institutional and regulatory framework

#### Formation of the National Logistics Task Force

The Ministry of Transport (MOT) will champion the development of the logistics sector through the NLTF. Chaired by the Minister of Transport, the NLTF will implement the National Logistics and Trade Facilitation Master Plan, providing strategic direction for the development of the logistics industry and further improving its productivity and competitiveness. Five cluster groups have been established, responsible to drive specific action plans proposed in the Master Plan, monitored by the NLTF. In addition, the Special Committee for Services Sector, chaired by the Prime Minister, will provide oversight to resolve cross-cutting issues.

#### Regulating off-dock depots

The Land Public Transport Commission (SPAD) will be given the mandate and capacity to ensure the orderly development of off-dock depots. These depots will be regulated through operating licences and standard guidelines. An organised off-dock depot management system will decongest ports and deliver efficient cargo operations at competitive cost.

#### Planning and development of warehousing activities

The planning and development of warehousing activities will be placed under the purview of MOT. The ministry will collaborate with the Ministry of Urban Wellbeing, Housing and Local Government (KPKT) to develop standards and specifications for warehouses, identify suitable locations, and improve approval processes. In addition, both ministries will develop a national warehouse inventory website to manage information on the warehousing segment.

### Simplifying and streamlining regulations

Efforts will be focused on simplifying the commercial vehicle registration process. In addition, processing time for application of landing permits for non-scheduled flights will be shortened. To enable these improvements, complex and ineffective regulations will be

simplified and streamlined to improve efficiency and reduce costs. In order to optimise vehicle utilisation and enhance road freight efficiency, the axle load for heavy vehicles and the interchangeability of prime movers for different trailers will be reviewed.

Exhibit 7-10

### Comparison of logistics sector performance in 2013

		Malaysia 	Indonesia 	Thailand 	Singapore 	Hong Kong 
Air	<b>Air Transport</b> (million tonne-km)	1,990.9	959.1	2,644.4	6,512.2	9,439.9
	<b>Air Freight Volume</b> (million tonne)	0.9	1.5	1.6	1.8	4.1
Sea	<b>Container Traffic</b> (million tonne)	20.8	10.1	7.9	32.6	22.4
	<b>Sea Freight Volume</b> (million tonne)	506.2	1,470.5	198.5	560.9	276.1
Land	<b>Trade Costs</b> (US\$ per container)					
	<b>Import</b>	485.0	660.0	760.0	440.0	595.0
	<b>Export</b>	450.0	615.0	595.0	460.0	590.0
Warehouse	<b>Building a warehouse</b>					
	<b>Procedures</b> (no.)	13.0	17.0	7.0	10.0	5.0
	<b>Time</b> (days)	74.0	211.0	113.0	26.0	66.0
Trade Facilitation	<b>Time Requirement</b> (Days)					
	<b>Import</b>	8.0	23.0	13.0	4.0	5.0
	<b>Export</b>	11.0	17.0	14.0	6.0	6.0

Higher performance  
Lower performance

Source: EPU

## **Strategy B2**

### **Enhancing trade facilitation mechanism**

#### **Collaboration to reduce cargo clearance time**

Collaboration between the Royal Department of Customs and permit issuing agencies will be strengthened to shorten cargo clearance processing time without compromising security. The Special Task Force to Facilitate Business (PEMUDAH) will lead this initiative with the Malaysian Productivity Corporation as secretariat.

#### **Moving to paperless trading**

Paperless trading will be driven through u-Customs to encourage industry players and permit issuing agencies to gradually reduce the usage of hardcopy documents. The security of the trade documents will be enhanced with better features and standards to ensure only genuine documents are used.

## **Strategy B3**

### **Building freight infrastructure efficiency and capacity**

#### **Strengthening last-mile connectivity to Port Klang**

The last-mile connectivity to Port Klang, Selangor via road and rail will be improved to cope with the rise in container volume. Priority will be given to upgrading the rail link between Westport and Northport to reduce congestion and encourage rail freight. Critical stretches along Jalan Pelabuhan Utara and Pulau Indah Expressway will be upgraded to ease congestion and enable the seamless movement of goods. In addition, the usage of traffic information systems will be promoted for better traffic management within Port Klang.

#### **Expanding capacity for air and rail freight**

The Padang Besar Terminal in Perlis will be upgraded to capture the potential growth in cargo volume, anticipated to reach 245,000 TEUs by 2020 from 120,000 TEUs in 2014. Among the measures to be undertaken include expanding the yard to create an extra container stacking area, providing extra load-on/load-off spaces, and increasing the number of train services.

The cargo handling facilities and freighter service at Kota Kinabalu International Airport will be upgraded based on demand to support the export of agricultural produce, particularly aquacultural products. In addition, the need for cargo facilities such as cool ports and staging areas to consolidate and facilitate cargo movement at KLIA will be reviewed. In addition, the former low-cost carrier terminal will be transformed into a regional cargo hub.

## **Strategy B4**

### **Deploying technology in the logistics chain**

#### **Promoting the development of virtual selling platforms**

Virtual selling platforms will be promoted to match logistics supply and demand. The private sector, through freight associations, will take the lead in establishing platforms, driven through the National Logistics Task Force. This initiative will enable the logistics service providers to connect with freight forwarders and publish rates and availability of services to users, particularly the small and medium enterprises (SMEs).

#### **Strengthening logistics facilities for e-commerce**

Supporting logistics facilities for e-commerce featuring fulfilment centres will be developed at strategic locations to increase the efficiency and productivity of online retailers. Fulfilment centres which offer warehousing, order processing and delivery activities provide the platform for online retailers to outsource services. This will reduce operating costs and enhance customer satisfaction. In addition, SMEs will be encouraged to go online and gain access to a wider market through fulfilment centres.

The development of urban logistics services will be given priority to encourage efficient distribution of goods purchased online in the urban areas. Emphasis will be given to improve fleet management, setting up hub and spoke distribution facilities, and night logistics services. NLTF will drive the urban logistics initiative under the Eleventh Plan.

## **Strategy B5**

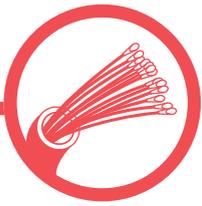
### **Strengthening capabilities of logistics service providers**

#### **Investing in training and human capital development**

Skills of professionals in the logistics industry will be enhanced through on-the-job training programmes. In addition, universities and training institutes will be encouraged to offer logistics-related short-term courses or certification programmes to improve competency. Efforts will be undertaken to enhance industry-led training through greater collaboration between training institutions and industry experts.

#### **Introducing accreditation for logistics service providers**

An accreditation system for logistics service providers will be introduced to certify companies that comply with regulations and adopt best practices such as green logistics and information, communications and technology (ICT) applications. Accreditation will be made a prerequisite for companies to obtain incentives. This initiative will enable local logistics service providers to move up the value chain and offer higher value added services, leading to increased service exports.



## Focus area C

# Improving coverage, quality and affordability of digital infrastructure

Digital infrastructure plays a critical role in connecting businesses and individuals to the global marketplace, allowing people to communicate in ways never possible before due to rapid technological advances. Malaysia aspires to ensure that its citizens and economy keep pace with the digital global economy by expanding the successful roll-out of digital technologies such as the High-Speed Broadband (HSBB) and Digital Terrestrial Television (DTT). This, coupled with efforts to increase the affordability of such services, and enhanced consumer protection standards, will pave the way for the ubiquity of fibre connectivity, ensuring that Malaysians have access to affordable, high-quality digital infrastructure on par with the world's developed economies. These aspirations will be achieved through four strategies:

- **Strategy C1: Expanding and upgrading broadband infrastructure** through deploying broadband as an essential service, improving international to last-mile connections, and integrating digital infrastructure planning;
- **Strategy C2: Increasing affordability and protection for consumers** through an improved Access Pricing Framework (APF) and setting standards for consumer protection;
- **Strategy C3: Migrating to DTT** by implementing the second phase of Malaysia's DTT and introducing value added services; and
- **Strategy C4: Strengthening infrastructure for smart cities** through better connectivity and seamless integration of urban services.

### Strategy C1

## Expanding and upgrading broadband infrastructure

Policy measures to encourage investments in digital infrastructure will be undertaken by improving connectivity from international to last-mile connections to households. Greater coordination between relevant government agencies will ensure these measures are integrated and coherent.

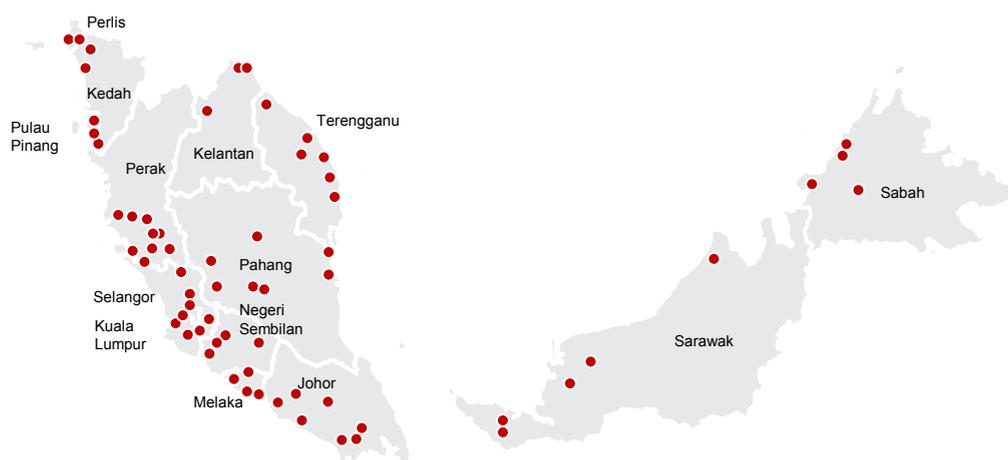
### Deploying broadband as essential service through Uniform Building By-Laws

An amendment in 2011 to the Uniform Building By-Laws (UBBL), 1984 stipulates that communication installations is one of the essential services similar to water and electricity under the certification for completion and compliance of buildings. This requires developers to provide ready-to-use communication infrastructure for new housing and commercial developments. The eight states, namely Johor, Kelantan, Melaka, Pahang, Perak, Perlis, Selangor, and Terengganu, which have gazetted the new UBBL requirements will be fibre-ready by 2018. The remaining states will be encouraged to comply with the UBBL requirements.

### Improving connectivity from international to last-mile connections

Measures will be undertaken to improve the international to last-mile bandwidth capacity to meet the expected demand of 41 terabytes per second (Tbps) during the Eleventh Plan. Efforts will also be undertaken to enhance connectivity through deployment of the High-Speed Broadband 2 (HSBB 2) and Suburban Broadband (SUBB) for a more holistic coverage in all state capitals and selected high-impact growth areas as shown in Exhibit 7-11.

Exhibit 7-11

**HSBB 2 and SUBB proposed coverage****High-Speed Broadband 2**

- Covers all state capitals and selected high-impact growth areas
- 250,000 ports to be installed by end of 2016, passing through 410,000 premises
- 100 megabits per second (Mbps) broadband made available to all households in state capitals and high-impact growth areas by 2020

**Suburban Broadband**

- Covers suburban and rural areas
- Additional 420,000 ports through 750,000 premises to be installed within 5 years of project start
- 20 megabits per second (Mbps) broadband made available to 50% of households in suburban and rural areas by 2020

Source: MCMC

A review of the regulatory framework for international connectivity and promotion of a conducive environment to encourage international submarine cables to land in Malaysia will be undertaken.

### Integrating digital infrastructure planning

Collaboration amongst the Ministry of Communications and Multimedia, Malaysian Communications and Multimedia Commission (MCMC), state governments, and local authorities will be strengthened on the planning and deployment of digital infrastructure. Sharing of infrastructure and smooth deployment of broadband at standard and reduced cost will be the focus. The collaboration will ensure that broadband supply meets both federal and state requirements.

## Strategy C2

### Increasing affordability and protection for consumers

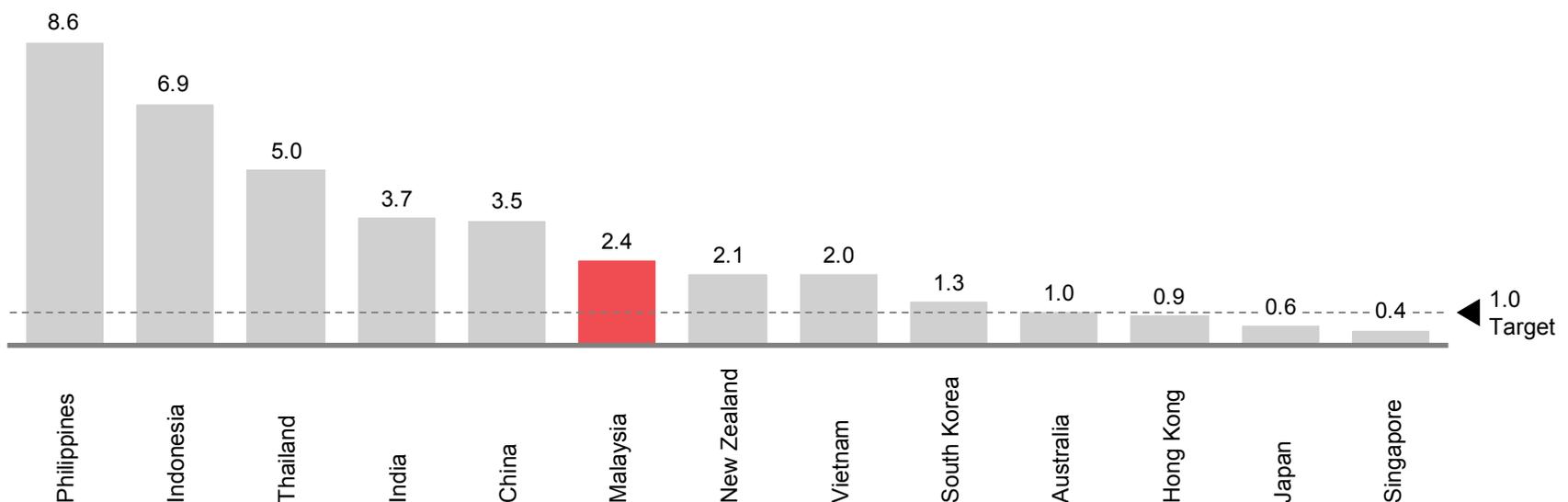
#### Improving the Access Pricing Framework for providers

The APF will be improved to facilitate competition and infrastructure sharing among service providers. This is expected to reduce the fixed broadband cost from 2.42% of GNI per capita in 2013 to 1% in 2020, in line with the national target. This will increase affordability and improve broadband outreach to the underserved. The APF will be reviewed in 2015 and the next review is scheduled in 2017 after the revision of the access list. The decision on specific service pricing will be determined as a result of the review and public inquiry. Exhibit 7-12 shows Malaysia's fixed broadband prices versus other countries in the region.

Exhibit 7-12

### Comparison of fixed broadband prices between Malaysia and other countries

#### Fixed broadband price, % GNI per capita 2013



Source: International Telecommunications Union (ITU), World Bank

### Setting standards and guidelines for better consumer protection

The self-regulatory framework under the Communications and Multimedia Act 1998 will be strengthened to enhance consumer protection. These improvements will provide consumers with clear and specific criteria to measure the Quality of Service (QoS) of service providers, as well as protect their rights in cases where minimal acceptable standards are not met. Services such as public cellular service, dial-up internet access, content applications, public payphone, digital leased line service, and broadband access will be included. In addition, the monitoring and compliance framework will also be strengthened to impose stiffer penalties on service providers for non-compliance.

In addition, a Star Rating System for telcos will be introduced to assist consumers in making informed choices about service providers. This will be based on MCMC's Extensive End-Point Service Availability Testing, a mobile network quality measurement which is conducted twice a year to benchmark the QoS for mobile services. This effort is to keep consumers informed and encourage mobile operators to improve their networks and services.

The General Consumer Code (GCC) will be reviewed to provide model procedures for service providers on reasonably meeting consumer requirements, handling consumer complaints, protecting consumer information and promoting a high level of consumer confidence in service delivery from the industry.

### Strategy C3

## Migrating to Digital Terrestrial Television (DTT)

DTT is a technological advancement in television that allows broadcasting of high quality video over digitised land-based signals. DTT therefore has lower operating costs than satellite television, but offers a higher quality of broadcast than analogue. DTT allows higher levels of video compression than analogue, leading to a more efficient use of spectrum, thus releasing spectrum for wireless communication and other uses. For broadcasters and consumers, this means better affordability and better quality viewing on regular television, without the need for satellite antennas.

### Implementing second phase of Malaysia's DTT

The second phase of the Digital Terrestrial Television (DTT) service will be implemented in 2016-2017, covering 46 areas nationwide including 24 areas in Sabah and Sarawak. The second phase roll-out will give more households the option to choose between DTT and satellite televisions, increasing consumer choice.

### Introducing value-added services through DTT

In addition to providing TV and radio services, DTT opens the room for new value added services through televisions, as well as spurs the development of content and applications, which contributes to the growth of the content and software solutions industry. Service options include connected services such as Catch-Up TV, video- and application-on-demand; potential for TV-based commerce including e-shopping, transaction and payment gateways, and delivery tracking; and other services such as social media TV, ratings research and analytics, and e-learning. These services will be made available after the completion of the Analogue Switch Off (ASO), which will commence by regions in 2016, to be completed in 2017. Examples of potential value added services are shown in Exhibit 7-13.

## Strategy C4 Strengthening infrastructure for smart cities

As more Malaysians live in urban areas, cities are starting to face pain points such as congestion, pollution, and inefficient deployment of urban services. Smart Cities is a next generation approach to urban management with solutions that address these issues and improve the quality of life of urban dwellers as shown in Exhibit 7-14.

Efforts will be undertaken by the Ministry of Communications and Multimedia to ensure smart living in cities. In this regard, emphasis will

be placed on addressing major pain points related to urban services such as providing better transportation as well as utilities and waste management. To enable connectivity and seamless integration of services, focus will be on developing pervasive broadband, sensor networks and applications. Data will also be made available on an open basis to support analytics and planning as well as create opportunities for open innovation by businesses and individuals.

During the Eleventh Plan, a framework will be developed to prioritise areas of focus in the development of smart cities. A fundamental initiative to realise the migration to smart cities will be the development of smart communities.

*Exhibit 7-13*

### Examples of value-added services through DTT



#### Connected Services

- Catch-Up TV
- Video-on-Demand
- Application-on-Demand
- Online Games
- Web TV
- Multi-Screen Video
- Video Contribution Network
- Programme Guides Schedule Data Enhanced
- Subscription Radio
- On-Screen Chat



#### T-Commerce & Applications Services

- E-Shopping
- Ordering Services
- Transaction & Payment Gateway
- Third Party Integration Management
- Delivery Tracking



#### Soft Services

- Hot Line
- Ratings Research & Analytical Customer Relationship Management
- E-Learning Application
- Social Media TV
- Voting
- Subscription Management System
- Payout

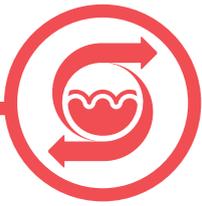
Source: MCMC

Exhibit 7-14

## Overview of smart city initiatives



Source: Based on "How to Make a City Great", McKinsey & Company Cities Special Initiative 2013



## Focus area D

# Continuing the transition to a new water services industry framework

Access to clean water and sewerage represents one of the most basic foundations of life. Malaysia today has already achieved impressive outcomes with close to 95.1% of its population having access to clean and treated water. The Government remains committed to expanding coverage and improving the quality of the water services industry nationwide. To achieve these objectives, the Water Services Industry Act (WSIA) was introduced in 2006. The Act aims to protect long-term financial sustainability and enable continuous renewal of the industry. In addition, the Government remains committed to tackling the long-standing issue of non-revenue water, currently at a national average of 36.6%, a major inefficiency in the industry that must be addressed. To achieve these aspirations, the following four strategies will be pursued during the Eleventh Plan:

- **Strategy D1: Raising the financial sustainability of the water services industry** by strengthening the tariff system and implementing joint billing for water and sewerage;
- **Strategy D2: Expanding network and treatment plant capacity through infrastructure investment and use of efficient technology**, through new treatment plants and expanding connected water and sewerage services;
- **Strategy D3: Increasing efficiency and productivity of water and sewerage services** through implementation of the Non-Revenue Water Reduction Programme and by rationalising and upgrading sewage plants; and
- **Strategy D4: Strengthening the regulatory framework of the water services industry** with the National Sewerage Master Plan, a water demand master plan and promotion of waste to wealth initiatives.

## Strategy D1 Raising the financial sustainability of the water services industry

### Strengthening the tariff setting mechanism

Capital expenditure for water treatment and distribution will be financed through the Perbadanan Aset Air Berhad (PAAB) to reduce the amount of financial support required from the Government. The viability of this arrangement will need to be tied to a new tariff setting mechanism that promotes full cost recovery. This will ultimately ensure that water services operators are financially sustainable.

A new tariff setting mechanism will also be implemented for sewerage service to cover operational cost. This will ensure that service operators are able to carry out scheduled maintenance, minimising incidences of non-compliance and safeguarding the environment.

### Implementation of joint billing for water and sewerage services

WSIA aims to integrate both water and sewerage services as a single industry. To this end, a joint billing exercise between water and sewerage services will be implemented based on a volumetric formula for sewerage tariffs. This is expected to increase collection rates by 20% to 30% for sewerage services, allowing operators to be financially sustainable.

## Strategy D2

### Expanding network and treatment plant capacity through infrastructure investment and use of efficient technology

#### Developing new treatment plants

The Government will ensure water supply sustainability, especially in stressed areas, by constructing new treatment plants or upgrading existing ones. Focus will be given to states which have water supply reserve margins of less than 10% such as Kedah (0%), Selangor (4.5%), and Negeri Sembilan (7.5%). With the completion of the Langat 2 Water Treatment Plant (WTP), the water supply reserve margin for Selangor will reach 14%. Similarly, the upgrading of Kulim High Tech WTP and Batu Kitang WTP will increase reserve margins for the Kulim High Tech Industrial Park in Kedah to 10% and for Kuching in Sarawak to 13%.

#### Increasing clean and treated water coverage

The Government aims to have 99% of the population served by clean and treated water by 2020. Alternative water supply systems such as rain water harvesting, tube wells, and gravity feed systems will be expanded in rural areas - particularly in Kelantan, Pahang, Sabah, and Sarawak. Efforts to expand connected water supply coverage in these states will continue, supplemented by these alternative systems. These systems will be tailored to local requirements, geographical considerations, and cost effectiveness considerations. Rain water harvesting systems will be adopted in remote areas with high rainfall while gravity feed systems will be adopted in highland areas with limited access.

#### Expanding connected sewerage services in rural areas

Connected sewerage services will be extended to rural areas through solutions tailored for population agglomerations of less than 5,000 people. This will reduce the use of individual septic tanks and pour flushes, which are both major threats to the environment and public health, and result in a two million population-equivalent reduction. Priority will be given to areas bordering water sources and polluted rivers.

## Strategy D3

### Increasing efficiency and productivity of water and sewerage services

#### Implementing a holistic non-revenue water (NRW) reduction programme

During the Eleventh Plan, NRW will be reduced from 36.6% in 2013 to 25%, as shown in Exhibit 7-15, with the implementation of a holistic NRW reduction programme. The reduction of 11% in NRW will result in an additional revenue of up to RM410 million annually. One of the initiatives is to develop comprehensive district metering zones, which also include meter and pipe replacement programmes, and pressure control management. Enforcement on illegal tapping will also be given priority. Regulations to require contractors to only use trained workers in pipe works will be enforced.

#### Rationalising and upgrading sewage treatment plants

In the Eleventh Plan, 3,000 small and inefficient sewage treatment plants will be rationalised through the construction of regional and centralised plants with larger capacities and more efficient technologies. These plants will be considered for areas that have sufficient demand. In areas where such plants are not feasible, existing treatment plants will be upgraded with new mechanical and electrical components to ensure effluent levels are compliant with standards. This rationalisation is expected to reduce the cost of electricity bills and manpower by 50%. Alternative financing methods based on privatisation concepts will be further promoted as a new source of capital.

## Strategy D4

### Strengthening the regulatory framework of the water services industry

A comprehensive policy will be prepared for implementing agencies, industry players, and relevant stakeholders to guide the water services industry towards sustainability. This is to promote better and more

coordinated planning through an enhanced understanding of the supply and demand chain from all sources.

### Developing the National Sewerage Master Plan

The National Water Services Commission (SPAN) will develop the National Sewerage Master Plan to provide integrated and holistic long-term policy directions and strategic shifts for the sewerage services industry. The master plan will include strategic plans on identification of catchment areas, rationalisation of treatment plants, and funding mechanisms. It will also provide appropriate strategies to encourage migration from individual septic tanks and pour flush to standardised treatment systems to minimise pollution.

### Promoting waste to wealth for sewerage

Waste to wealth initiatives will be actively promoted for sewerage service operators. These operators will be encouraged to tap sewage

by-products. Guidelines will be introduced under the National Sewerage Master Plan to lay necessary requirements to support these initiatives. In addition, service operators will be encouraged to strengthen their standard operating procedures.

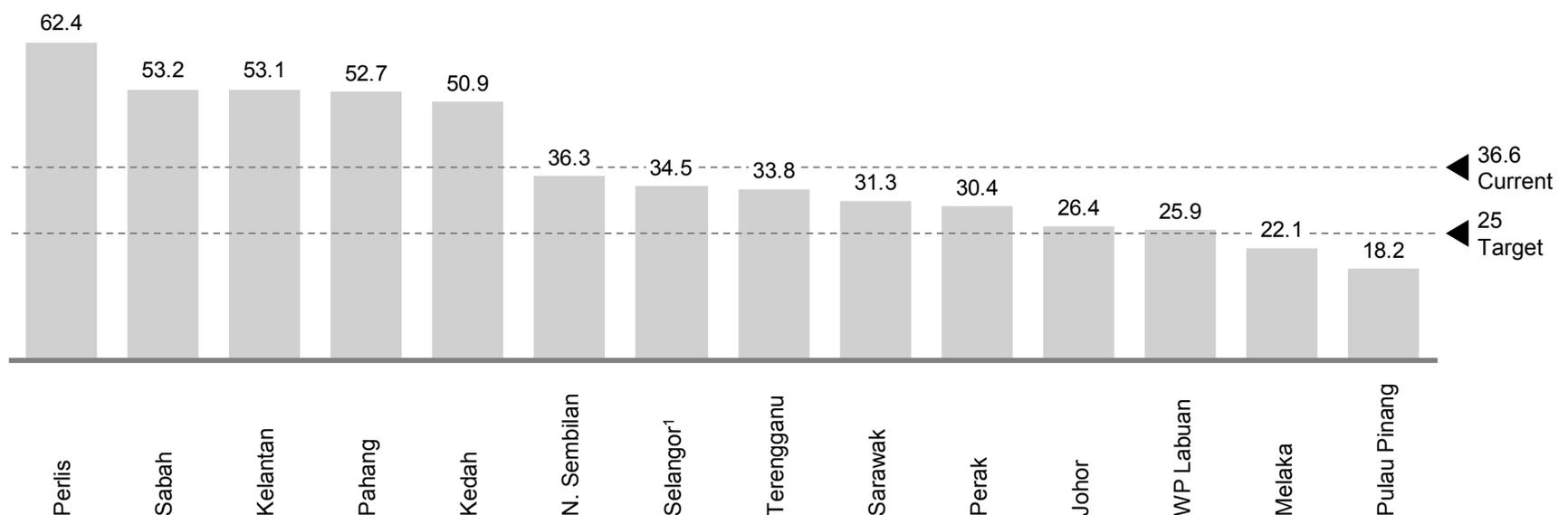
### Establishing a water demand management master plan

The Ministry of Energy, Green Technology and Water (KeTTHA) will develop a master plan on water demand management, which will enable better demand management and provide tools to forecast water demand. Priority will be given to reduce the use of treated water for non-potable uses by using alternative water sources such as rain water harvesting, storm water, and treated waste water. The revision of tariffs will also be used as a water demand management tool. In addition, communications, awareness and education programmes will be intensified to promote the efficient and prudent use of water.

Exhibit 7-15

### Non-revenue water by states in 2013

%



<sup>1</sup> Selangor includes FT Kuala Lumpur and FT Putrajaya  
Source: SPAN



## Focus area E

# Encouraging sustainable energy use to support growth

The security of energy supply is of paramount importance as energy is the primary driver of the nation's growth – affecting not only the quality of life for all Malaysians but also enabling the continued growth of the economy. Malaysia is committed to ensuring energy security for the nation while improving infrastructure and service delivery for the oil, gas and electricity subsectors. Underpinning these efforts are continuing policies to rationalise energy subsidies and move towards a market-based energy pricing so that energy resources are utilised optimally. These aims will be achieved through five strategies:

- **Strategy E1: Strengthening stakeholder coordination and collaboration in the energy sector** through greater institutional collaboration on energy planning and engaging end-users on efficient energy consumption;
- **Strategy E2: Ensuring the security and reliability of supply for the oil and gas subsector within a market-based approach** and reducing market distortions;
- **Strategy E3: Enabling growth in the oil and gas subsector** in downstream oil and gas refining, introducing third party access regulation to allow new entrants into the gas business and implementing clean fuels in the transport sector;
- **Strategy E4: Managing supply diversity for security of the electricity subsector** through better management of resources, enhancing alternative energy sources, and augmenting rural electrification; and
- **Strategy E5: Improving the sustainability, efficiency, and reliability of the electricity subsector** with a sustainable tariff framework and initiatives to improve efficiency and reliability of electricity supply.

### Strategy E1

## Strengthening stakeholder coordination and collaboration in the energy sector

### Fostering greater institutional collaboration on energy planning

A comprehensive governance, that allows for more structured inter-agency collaboration in the area of planning and management for the energy sector, will be instituted. A high-level focal point in the Government will be established to oversee and streamline all energy related policy decisions and execution. In this regard, National Petroleum Advisory Council will oversee comprehensive planning and management of the energy sector and streamline the interests of all parties.

### Engaging end-users on efficient energy consumption

A comprehensive and effective communication plan on the sustainable use of energy resources is required to improve public awareness and understanding, and to manage public perception of the subsidy rationalisation programme. This includes communications and public awareness programmes to build buy-in for the development of coal and nuclear power plants required for security of supply, and for consumers to use energy efficiently in homes, schools, and at workplaces. A task force comprising of representatives of the Government, the private sector, and non-government organisations (NGOs) will be formed to ensure coordinated implementation of the plan.

## Strategy E2

### Ensuring the security and reliability of supply for the oil and gas subsector within a market-based approach

#### Ensuring security of supply for gas

Gas supply security would be ensured through the construction of pipelines from the Malaysia-Thailand Joint Development Area to Kerteh, Terengganu; construction of the RGT-2 in Pengerang, Johor; and the commissioning of two floating LNG units offshore Sabah and Sarawak with a capacity of 2.7 mtpa. In addition, to ensure undisrupted supply during emergencies, a swing field offshore east of Peninsular Malaysia will provide an additional 100 - 200 mmscfd of natural gas. These additional volumes, together with a 15% buffer of storage capacity from RGT-1 in Sungai Udang, Melaka, will cater for gas demand in Peninsular Malaysia.

Reliability of gas supply in Sabah will be improved with additional pipeline connections from offshore fields to demand centres in FT Labuan, as well as Kota Kinabalu and Kimanis in Sabah. Platforms will be connected through multiple links to provide alternative bypass options and provide capacity to users in the event of platform shutdowns. Improved connectivity for FT Labuan will be realised through the establishment of a pipeline connection between the Sabah-Sarawak Gas Pipeline and FT Labuan. In addition, advanced technology will be deployed in mature and marginal fields to monetise stranded gas.

Distribution of natural gas to scattered and uneconomic demand areas in Peninsular Malaysia and Sabah will be served through virtual pipelines, which is a method of distributing natural gas from city gate to consumers using trucks. This will reduce the cost of production for industries. Safe and economic alternative distribution methods for natural gas will also be explored.

#### Reducing market distortion

Sustained efforts to institute market-based energy pricing will be carried out to reduce the amount of energy subsidies. Initiatives to

review the pricing structure for gas supply will be continued during the Eleventh Plan to gradually align current piped gas prices towards market prices. In addition, Incentive-Based Regulation (IBR) for gas will be introduced to ensure efficient resource allocation, usage and sustainable financial performance. The price for RON 95 petrol, RON 97 petrol and diesel will continue to be regulated using the managed float system to stem leakages. Compressed natural gas (CNG) prices will also be reviewed accordingly to gradually remove subsidies and encourage expansion of CNG retail infrastructure.

## Strategy E3

### Enabling growth in the oil and gas subsector

#### Supporting the development of Pengerang Integrated Petroleum Complex

The Refinery and Petrochemical Integrated Development (RAPID) within PIPC is a major development that will add 300,000 bpd of oil refining capacity in Malaysia during the Eleventh Plan. The facility will be able to produce EURO 4M and EURO 5 grade petrol, in addition to 7.7 mtpa of various grades of specialised products such as synthetic rubber and high grade polymer by 2020. In addition, the complex will have a 1,220 MW co-generation power plant of which 620 MW will be utilised by RAPID and the remaining 600 MW exported to the grid. The Government will provide support to construct essential infrastructure such as roads, drainage, and utilities for this development. Another investment in PIPC will be secured by the Johor Petroleum Development Corporation during the Eleventh Plan to complement existing investments by DIALOG-Vopak and PETRONAS.

#### Moving towards third party access for gas supply to allow new entrants

Third party gas players will be able to utilise gas supply infrastructure through the enforcement of the amended Gas Supply Act, 1993 (Act 501) in 2016. This will create a level playing field for new entrants to the domestic gas supply market complementing PETRONAS, which is currently the sole player.

In addition, fair competition will be encouraged and a vibrant gas supply market will be created while local industries will be weaned off subsidies. The expected future gas industry growth is estimated to be worth RM2.86 billion.

### Implementation of clean fuel in the transport sector

The utilisation of environmentally friendly fuel will be implemented when RON 95 petrol with EURO 4M, and diesel with EURO 5 standards are introduced during the Eleventh Plan. This is in line with Environmental Quality (Control of Petrol and Diesel Properties) (Amendment) Regulations 2013. In addition, the current B7 programme will be further increased to the B15 programme (blending of 15% palm-based methyl ester with 85% petroleum diesel) in all sectors by 2020. The bio-diesel programme, which will be implemented by the Ministry of Plantation Industries and Commodities, offers the energy sector a sustainable, renewable, and environmentally friendly source of energy, as well as reduces the nation's dependency on imported diesel fuel.

## Strategy E4

### Managing supply diversity for security of the electricity subsector

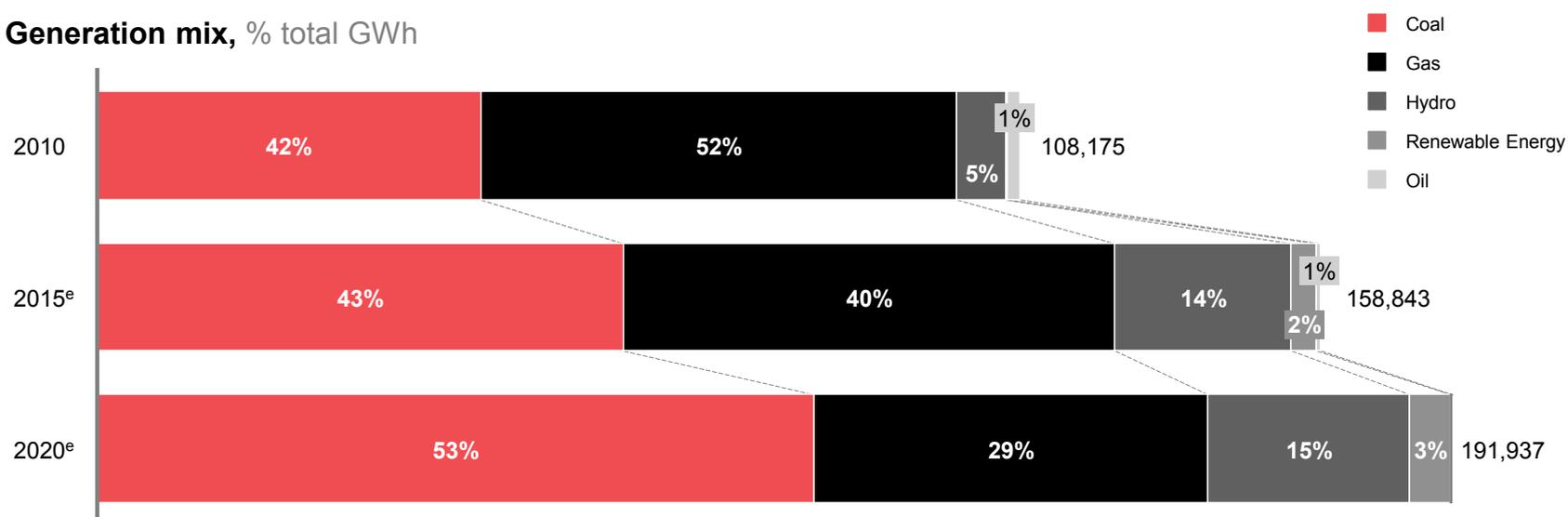
#### Ensuring electricity supply security through better management of resources

The electricity subsector will maintain an optimum generation mix, which takes into account economic, social, and environmental factors. This will be guided by the Hirschmann-Herfindahl Index or HHI<sup>5</sup>, a fuel diversity index which will be adopted for efficient management of resources. During the Eleventh Plan, the optimisation of fuel mix and exploration of alternative fuels will be given priority to reduce the nation's dependency on fossil fuels for electricity generation. The expected electricity generation mix is shown in Exhibit 7-16.

Exhibit 7-16

### Generation mix in Malaysia

#### Generation mix, % total GWh



<sup>e</sup> Estimated  
Source: Energy Commission

<sup>5</sup> The HHI target is set at below 0.5 in 2020. A HHI of 0.5 indicates there will be no dependence on any particular fuel while a HHI exceeding 0.5 reflects overdependence on certain fuel resources. The HHI for 2014 is 0.45, which indicates a healthy index.

The Government will ensure that future power planting up must incorporate more stringent emission control technologies to ensure a progressive reduction of the energy industry's carbon footprint. Usage of clean and green energy sources in power generation will be made a priority and is expected to be increased substantially in the generation mix. Malaysia needs the right balance between economic, environmental, technology adaptation, and social considerations to ensure all aspects are considered before installing new capacity.

### Enhancing alternative energy sources

The Government will study new potential RE sources to enhance the generation mix. During the Eleventh Plan, biomass and biogas power plants will be pursued because of the large potential of these sources. In addition, other RE sources such as wind, geothermal, and ocean, as well as off-grid RE facilities, will be explored and promoted. Off-grid electricity supply using RE sources in relevant local areas will be provided in a cost-efficient manner, as successfully implemented in other countries. Electricity generation capacity through renewable sources including biomass, biogas, solar PV, and mini hydro are targeted to reach 7.8% of total installed capacity in Peninsular Malaysia and Sabah by 2020, or about 2,080 MW<sup>6</sup>.

The usage of nuclear power as an alternative energy resource will be explored further. In this regard, an independent atomic energy regulatory commission will be established based on a new comprehensive nuclear law for electricity generation.

The implementation of net energy metering (NEM), especially for solar-generated electricity, will provide savings on electricity bills to consumers. NEM allows RE generators to use the electricity first and feed surplus electricity to the grid. This instrument will enable consumers to use their own generating facilities to offset their consumption of electricity over a billing period.

### Augmenting rural electrification

Rural electrification programmes, especially in Sabah and Sarawak, will be enhanced to improve national coverage to 99% by 2020, as shown in Exhibit 7-17. Electricity supply would be provided through off-grid generation for areas which are too far from the grid. The development of alternative systems such as solar hybrid, mini and pico hydro will be supported by off-grid networks to ensure wider coverage. A pico hydro is a small-scale system with a generation capacity between 0.1 kW and 1 kW which uses flowing water to rotate electrical generator turbines. This system is suitable for rural areas as it does not require construction of dams and has no impact on the environment.

Community involvement in providing rural electrification will be promoted. The Government will explore collaborations with relevant communities to ensure sustainability of rural electrification systems. Partnerships with NGOs will be formed to provide electricity supply for the rural communities using micro hybrid and RE sources. The community's involvement from an early stage is important to reduce the cost of development and maintenance of the electrification system.

## Strategy E5

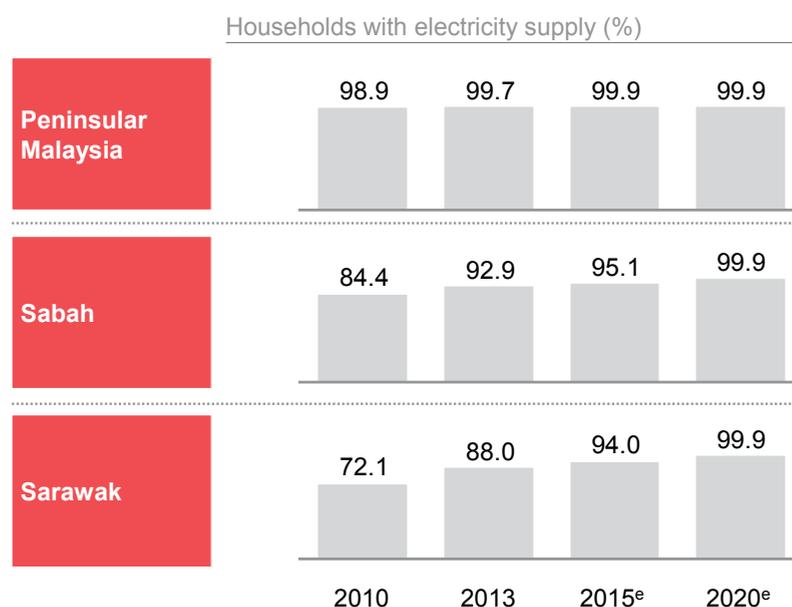
### Improving the sustainability, efficiency, and reliability of the electricity subsector

#### Creating a sustainable tariff frameworks

In line with the Government's policy to gradually remove energy subsidies, subsidy rationalisation for electricity tariffs will continue. Fuel cost is the single largest component of the electricity tariff. Therefore, to ensure that electricity tariffs are affordable for consumers, the generation fuel mix needs to be balanced to optimise the cost of supply. The Special Industrial Tariff will be abolished by 2020. In addition, future tariff increases will take into consideration the availability of safety nets for low-income households.

<sup>6</sup> Excludes large hydro projects

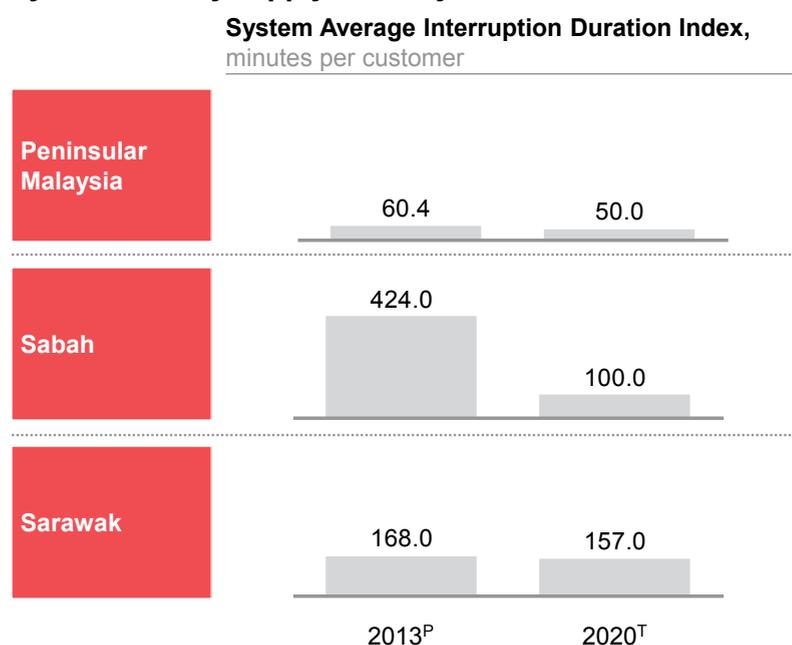
Exhibit 7-17

**Rural electrification in Malaysia**

<sup>e</sup> Estimated

Source: Ministry of Rural and Regional Development

Exhibit 7-18

**Reliability of electricity supply in Malaysia**

<sup>P</sup> Progress

<sup>T</sup> Target

Source: Ministry of Energy, Green Technology and Water, Energy Commission, and Sarawak Energy Berhad

The implementation of IBR will be continued to ensure utility companies provide efficient services. The IBR framework is designed to incentivise utility companies to reduce costs and improve service levels. The separation of generation, transmission, and distribution tariffs with automatic adjustments to take into account changes in fuel prices will increase transparency and efficiency of electricity supply as is illustrated in Box 7-3. New additions of power plants and extensions of existing power plants will continue to be selected through competitive bidding for greater transparency. This also creates healthy competition among industry players which will result in more competitive tariffs, and in turn benefits end-consumers.

**Improving efficiency and reliability of electricity supply**

The efficiency and reliability of electricity supply will be further improved through continued investment in generation, transmission, and distribution projects by utility providers. New investment in generation capacity and reinforcement of transmission, and distribution networks will continue in the Eleventh Plan. Construction of new power plants to produce 7,626 MW will be initiated to replace retiring plants and meet the growing peak demand. A number of 500 kV and 275 kV transmission projects to reinforce the grid systems will be completed to enhance the security of supply to major load demand centres. The additional generation capacity coupled with expanded transmission and distribution networks will improve the SAIDI for Peninsular Malaysia, Sabah, and Sarawak as shown in Exhibit 7-18.

## Box 7-3

## Incentive-based regulation for the electricity subsector

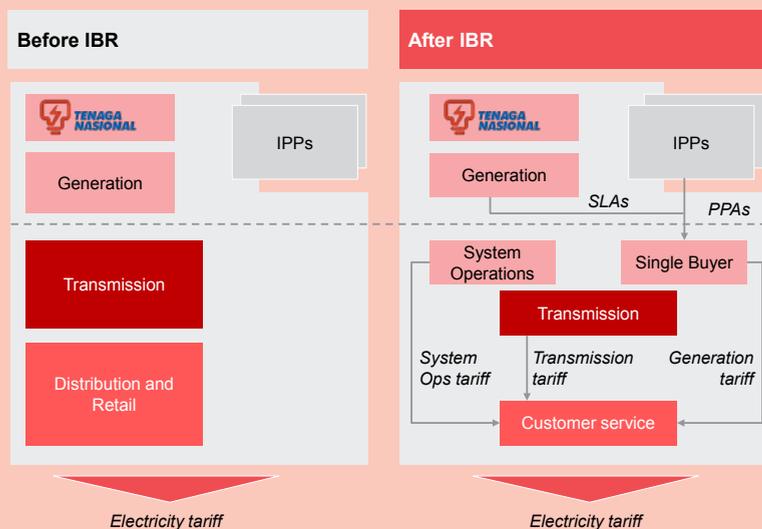
### What is incentive-based regulation?

Incentive-based regulation (IBR) is a core part of the Malaysia Electricity Supply Industry (MESI) restructuring exercise which began in 2009. The first regulatory period of the IBR was launched in January 2014.

It marks a significant structural shift away from the original model towards one of greater transparency as each business

unit of Generation, Transmission, Distribution, Single Buyer and System Operator is unbundled from an accounting standpoint. Under this new model, the Energy Commission, approves the electricity tariff based on a 3-year operations and investment plan submitted by the power utility company. The IBR model further incentivises efficiency gains by the utility, the benefits of which can be passed through to the consumer.

### Incentive based regulation concept



### Benefits of the IBR

- **Efficient.** Incorporates mechanisms to incentivise cost efficiencies over every regulatory period and allows the efficiency gains to be passed through to end-users;
- **Transparent.** Allows the regulator greater transparency over the operational and financial performance of every business unit including Generation, Transmission, Distribution, Single Buyer, and System Operator;
- **Financially Sustainable.** Enables periodic pass-through of fuel-related and other generation specific costs through the Imbalance Cost Pass-Through mechanism, while providing a fair return to the utility; and
- **Enables Growth.** Allows for recovery of future investments, provided they are done in a cost-efficient manner, and therefore ensures security of electricity supply to the nation.

## Conclusion

Good infrastructure is a fundamental enabler of economic expansion, social inclusion and growth. In the Tenth Plan, network expansion of infrastructure such as road, rail, water, digital infrastructure, gas and electricity were undertaken to improve accessibility and standards of living. In the Eleventh Plan, investment in roads, rail, ports, and air services will be balanced with efforts to improve productivity, efficiency, and service level of such infrastructure. To enhance national competitiveness and lower the cost of doing business, the logistics services will be improved and trade facilitation mechanisms will be strengthened. The capacity and coverage of water services and digital infrastructure will be expanded with greater emphasis on efficiency and affordability. The security and reliability of the energy supply will be strengthened by addressing both supply-side and demand-side measures. The successful implementation of the strategies outlined will enable Malaysia to achieve its vision of becoming an advanced economy and inclusive nation by 2020.



# Re-engineering economic growth for greater prosperity

## Overview

### Highlights Tenth Malaysia Plan, 2011-2015: Achievements

### Looking back Tenth Malaysia Plan, 2011-2015: Progress

Services sector

Manufacturing sector

Agriculture sector

Construction sector

Small and medium enterprises (SMEs)

Liberalisation and regulatory reform

Innovation

Regional economic corridors development

### Summary of focus areas Eleventh Malaysia Plan, 2016-2020

### Moving forward Eleventh Malaysia Plan, 2016-2020

Focus area A: Transforming services

Focus area B: Energising manufacturing

Focus area C: Modernising agriculture

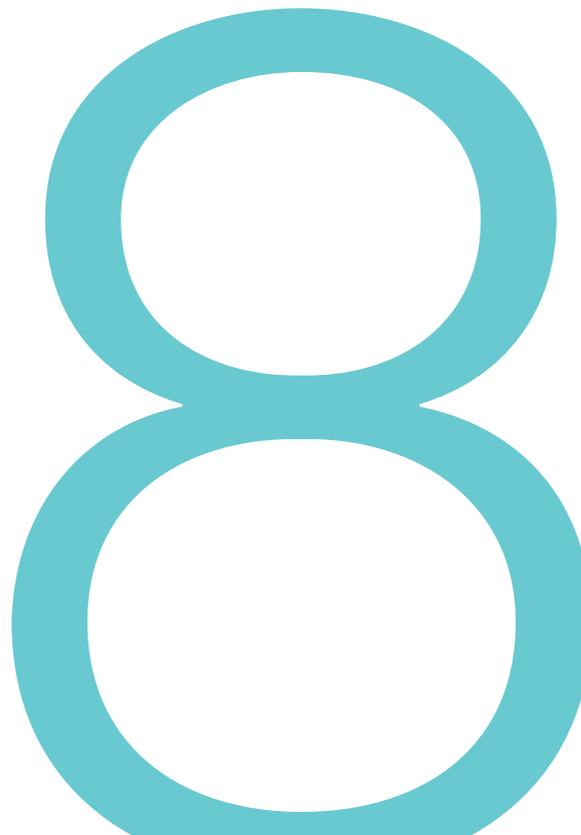
Focus area D: Transforming construction

Focus area E: Growing dynamic SMEs

Focus area F: Translating innovation to wealth

Focus area G: Investing in competitive cities and regional economic corridors

### Conclusion



## Overview

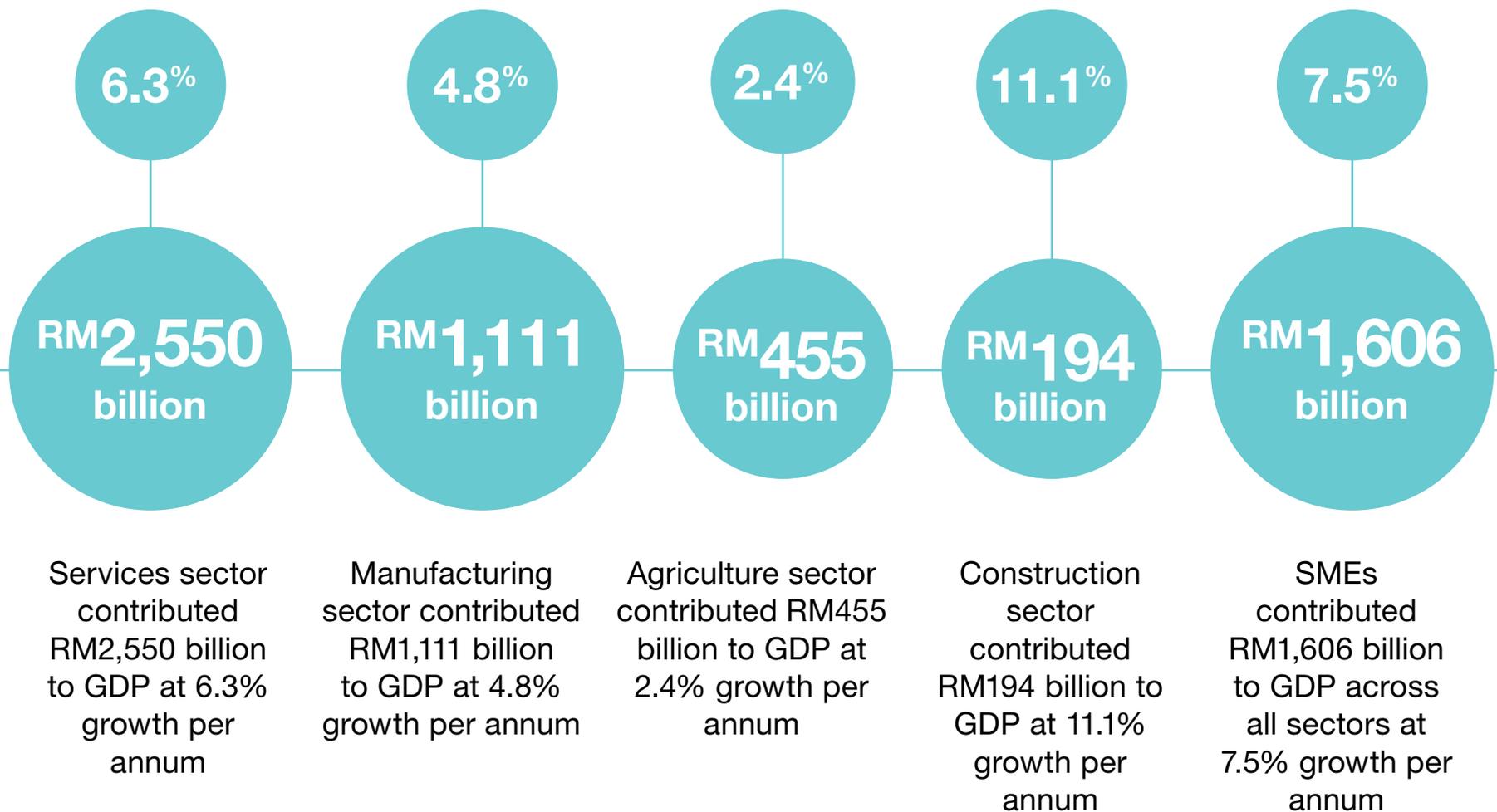
Malaysia continued to achieve steady economic growth and is poised to attain the aspiration of becoming an advanced economy and inclusive nation by 2020. In order to achieve this goal, the nation will need to ensure that its economic focus pivots towards high-value and knowledge-intensive activities. Small and medium enterprises (SMEs) will continue to be strengthened to increase their share in terms of Gross Domestic Product (GDP) and exports. Efforts to promote innovation will be undertaken at the enterprise and societal levels. Regional economic corridors will be further developed to ensure balanced development. In addition, there will be greater investment in selected cities to enhance their global competitiveness and gain from economic agglomeration.

**During the Tenth Malaysia Plan, 2011-2015,** all sectors of the economy witnessed positive growth with the services sector taking the lead. Regulatory reforms and further liberalisation increased the ease of doing business and measures to strengthen human capital provided the foundation for stronger sector outcomes. SMEs continued to propel the economy. The strategies implemented resulted in more inclusive and sustainable growth, reflected by rising household income, low unemployment rate, benign inflation, and a robust financial system. However, challenges still lie ahead for Malaysia. While economic fundamentals are solid, as a small and open economy, Malaysia remains exposed to external risks and shocks. To further strengthen its economic resilience, Malaysia will need to focus on enhancing productivity, unlocking innovation, and maximising its export potential.

**In the Eleventh Malaysia Plan,** 2016-2020, strategies are formulated to accelerate economic growth and promote towards an economy that will be driven by high-value and knowledge-intensive activities. The focus will be on quality growth, sectoral governance reforms, and enhancing internationalisation of products and services. A more cohesive and comprehensive approach to raise productivity will be implemented across national, industry, and enterprise levels. The ecosystem to stimulate private investment, innovation, and exports will be further improved. The Eleventh Plan will embark on game-changing strategies to spur economic growth such as intensifying innovation activities and developing competitive cities and regional economic corridors.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements



Shifting to higher value-added economic activities

18

18 services subsectors liberalised in 2012

18<sup>th</sup>

Malaysia ranked 18<sup>th</sup> out of 189 economies in the 2015 World Bank's Doing Business Report

33<sup>rd</sup>

Malaysia ranked 33<sup>rd</sup> on the Global Innovation Index out of 143 countries in 2014

64%

64% contribution to total research and development expenditure by business enterprises in 2012

RM175 billion

Realised investment with 427,100 jobs created across five regional economic corridors

Improving business ecosystem for accelerated growth

Stimulating regional growth

# Looking back

## Tenth Malaysia Plan, 2011-2015: Progress

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All sectors of the economy witnessed positive growth. The strategies implemented have resulted in a more inclusive and sustainable growth, reflected by rising household income, a low unemployment rate, benign inflation, and a robust financial system.

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During the Tenth Plan, the economy is estimated to expand at an average annual growth of 5.3% amid a challenging external environment. This growth is supported by strong domestic demand and sound economic fundamentals. The Government embarked on the Economic Transformation Programme to further fuel economic growth and productivity, including further liberalisation of the services sector. The economy witnessed sustained growth across major sectors. In addition, there were several achievements in terms of economic enablers, including strengthening SMEs, liberalising regulations to increase the ease of doing business and enhancing the innovation ecosystem.

### **Sector outcomes**

#### **Services sector**

During the Tenth Plan, the services sector continued to be the primary driver of growth and is estimated to expand at 6.3% per annum, contributing 53% to GDP, as shown in Exhibit 8-1. Growth in the services sector was supported largely by the wholesale and retail trade, finance and insurance, and communications subsectors. Investment in the services sector increased 10% annually to RM125.3 billion in 2013, supported mainly by expansion in domestic investment. Labour productivity in the services sector is estimated to increase at an average rate of 2.8% per annum, mainly contributed by the information and communications technology (ICT), real estate and business, finance and insurance as well as transport and storage subsectors. The services sector continued to be the main source of employment, which is expected to provide 8.4 million jobs or 60.9% of total employment. Exports of services is estimated to grow at 5.6% per annum to reach 18% of total exports by 2015. In 2013, Malaysia was ranked among the top 30 services exporters in the world.

Exhibit 8-1

## Major indicators of the services sector, 2010-2015

Sector	RM million in 2010 prices		% of total		Average annual growth rate, %
	2010	2015	2010	2015	Tenth Plan
<b>Services value added</b>	<b>420,382</b>	<b>571,835</b>	<b>100</b>	<b>100</b>	<b>6.3</b>
Electricity, gas & water	22,173	27,094	5.3	4.7	4.1
Wholesale & retail trade, accommodation & restaurants	134,635	185,410	32.0	32.4	6.6
Transport, storage & communications	68,511	97,363	16.3	17.0	7.3
Finance, insurance, real estate & business services	93,939	121,328	22.3	21.2	5.3
Government services	64,359	94,152	15.3	16.5	7.9
Other services	36,766	46,487	8.7	8.1	4.8
<b>Labour productivity (RM/worker)</b>	<b>59,278</b>	<b>68,111</b>			<b>2.8</b>
<b>Services export (RM million in current prices)</b>	<b>111,466</b>	<b>146,387</b>			<b>5.6</b>
<b>Employment ('000)</b>	<b>7,092</b>	<b>8,396</b>	<b>59.3</b>	<b>60.9</b>	<b>3.4</b>
<b>Contribution of total services sector to GDP (%)</b>			<b>51.2</b>	<b>53.8</b>	<b>53.0</b>

Note: 2015 numbers are estimated  
Source: Economic Planning Unit; Malaysia Productivity Corporation; Department of Statistics Malaysia

## Box 8-1

## Highlights - Services sector

Malaysia continued to be one of the world's leading tourist destinations with an increase in tourist arrivals from 24.6 million in 2010 to 27.4 million in 2014. Tourism remained an important source of foreign exchange earnings at RM72 billion in 2014, an increase of 27.4% from RM56.5 billion in 2010. The industry provided 2.2 million jobs or 16.8% of total employment in 2013. In addition, the healthcare travel segment recorded an increase of 82% in total revenue to RM690 million with 770,000 foreign patients in 2013, compared with RM379 million and 393,000 foreign patients in 2010.

The ICT industry, including e-commerce, is estimated to contribute 16.8% to GDP in 2015. The ICT services subsector contribution to GDP is estimated to increase from 5.2% in 2010 to 5.5% in 2015, while the ICT manufacturing subsector contribution is estimated to decrease from 4.6% in 2010 to 3.9% in 2015, reflecting the transition of the ICT sector from manufacturing towards higher value-added services. As per the ICT Satellite Account, employment in the industry increased by 2.2% per annum from 762,800 in 2010 to 779,500 in 2013, due to new job creation in the ICT trade and services subsectors. Net exports of the ICT industry declined from RM54.3 billion in 2010 to RM45 billion in 2013. This was due to a drop in the ICT goods exports percentage from total exports, from 29.4% in 2010 to 25.4% in 2013.

## Manufacturing sector

The manufacturing sector is estimated to grow at 4.8% per annum during the Tenth Plan and contribute 23% to GDP in 2015, as shown in Exhibit 8-2. Manufactured goods also dominated exports, contributing RM636.7 billion or 81.8% of total exports in 2015. The growth of the sector was contributed largely by the electrical and electronic (E&E) and chemicals subsectors. The value added of E&E increased from RM44.2 billion in 2011 to RM53.8 billion in 2015, partly due to new applications for semi-conductors in digitalisation, mobility, connectivity, energy efficiency, and miniaturisation. The chemicals subsector recorded an average growth of 3.4% per annum with an increase in value added from RM24.8 billion in 2011 to RM27.8 billion in 2015, as chemical products are important inputs to fast-growing industries such as automotive, E&E, pharmaceuticals, and construction. Performance of the sector was driven by strong demand from the Association of Southeast Asian Nations (ASEAN) member countries and Free Trade Agreement (FTA) partners.

Investment in manufacturing amounted to RM159.1 billion, which accounted for 20.4% of total approved investment between 2011 and 2014. Of this amount, domestic direct investment (DDI) represented 42.8% and foreign direct investment (FDI) represented 57.2%. This investment provided an estimated 348,000 new job opportunities, out of which 75% was in the managerial, technical, supervisory, and skilled categories. Overall, the sector is expected to provide 2.5 million jobs, representing 17.5% of total employment in 2015.

Exhibit 8-2

### Major indicators of the manufacturing sector, 2010-2020

Item	2010	2015	2020	Tenth Plan	Eleventh Plan
				Achieved	Target
<b>Contribution of manufacturing sector to GDP</b> (RM billion in 2010 prices)	192.5	243.9	312.5	1,110.9	1,417.3
<b>Annual growth rate (%)</b>	12.1	4.7	4.4	4.8	5.1
<b>Share to GDP (%)</b>	23.4	23.0	22.1	23.1	22.5
<b>Total exports of manufactured goods</b> (RM billion in 2010 prices)	489.6	636.7	812.8	2,801.3	3,677.9
<b>Share to total exports (%)</b>	76.6	81.8	83.4	76.4	82.8
				<b>Average annual growth rate (%)</b>	
<b>Share to total employment (%)</b>	17.0	18.0	18.2	3.9	2.5

Note: 2015 numbers are estimated; 2020 numbers are forecasted  
Source: Economic Planning Unit and Department of Statistics Malaysia

## Box 8-2

### Highlights - Manufacturing sector

The medical devices industry in Malaysia is made up of more than 190 companies dominated by SMEs and more than 20 multinational companies (MNCs). Malaysia remains the world's leading producer and exporter of catheters, providing 80% of the world market, and 60% of the world market for medical rubber gloves. In 2013, the medical devices industry contributed RM11.9 billion to total exports. The industry has been identified as a priority growth area with a gradual shift towards the manufacture of higher-value medical devices such as orthopaedic products, surgical instruments, and diagnostic radiographic equipment.

The aerospace industry is a fast-growing, high value added industry, comprising activities related to aviation and space management; maintenance, repair and overhaul (MRO); design, development, assembly, and operation of light aircraft; as well as support services. In 2014, there were 159 companies with 19,500 employees generating a revenue of RM11.8 billion. Exports by the aerospace industry totalled RM2.4 billion in 2013. To further accelerate the growth of the industry, the Malaysia Aerospace Industry Blueprint 2030 was launched on 17 March 2015 and aspires to propel the nation to be a leader in the aerospace industry by 2030.

## Agriculture sector

The development of the agriculture sector was guided by the National Agro-food Policy, 2011-2020 and the National Commodity Policy, 2011-2020, which aimed to increase food production and exports of industrial commodities. During the Tenth Plan, the sector is estimated to record an average annual growth of 2.4%, as shown in Exhibit 8-3. In 2015, the agro-food subsector is estimated to contribute 38.8% to the total agriculture value added, while the industrial commodities subsector at 60.5%. Palm oil continues to be the largest contributor, followed by fisheries and livestock. Higher self-sufficiency levels for several food commodities are estimated in 2015, such as poultry at 104.6%, fisheries at 92.6%, and rice at 71.4%.

Overall agriculture labour productivity grew by 2.2%, mainly due to better agronomic practices, quality input, application of modern farming technology, improved infrastructure, and continuous skills training programmes. During the Tenth Plan, agricultural export earnings are estimated to decline at an average rate of 2.8% per annum mainly due to lower commodity prices and weaker external demand. However, the sector remains an essential supplier of raw materials to the resource-based industries, contributing 19.6% to the total manufacturing value added in 2015.

Exhibit 8-3

### Major indicators of agriculture and agro-based industry, 2010-2020

Sector	RM, in 2010 prices			% of total to GDP			Average annual growth rate %	
	2010	2015	2020	2010	2015	2020	Tenth Plan Achieved	Eleventh Plan Target
<b>Agriculture value added</b> (RM million)	82,881	93,184	110,707	100	100	100	2.4	3.5
<b>Industrial commodities</b> (RM million)	55,646	56,407	63,096	67.1	60.5	57.0	0.3	2.3
<b>Agro-food</b> (RM million)	26,595	36,200	46,979	32.1	38.8	42.4	6.4	5.4
<b>Contribution of Agriculture to GDP (%)</b>				10.1	8.8	7.8		
<b>Labour productivity</b> (RM/worker)	51,672	57,691	68,763				2.2	3.6
<b>Agricultural exports</b> (RM million)	71,351	61,751	69,140	11.2	7.9	7.1	-2.8	2.3
<b>Agro-based industry</b> (RM million)	39,042	47,688	57,047				4.1	3.7
<b>Total agriculture &amp; agro-based industry</b> (RM million)	121,923	140,872	167,754	14.8	13.3	11.9	2.9	3.6
<b>Contribution of total agro-based industry to manufacturing value added (%)</b>				20.3	19.6	18.3		

Note: 2015 numbers are estimated; 2020 numbers are forecasted  
Source: Department of Statistics Malaysia and Economic Planning Unit

## Box 8-3

### Highlights - Agriculture sector

The agriculture sector has been steadily making progress towards increasing productivity and shifting to higher-value downstream activities, as highlighted in the examples below:

- In the agro-food subsector, the establishment of Permanent Food Production Parks (TKPM) has benefited 453 farmers involving 6,105 hectares as well as improving the income of 171 farmers to more than RM3,000 per month; and
- Palm oil downstream processing saw unprecedented private investment commitment of more than RM3 billion, spanning a wide range of high-value products from oleo derivatives such as biopolyols and biolubricants to phytonutrients such as tocotrienols and carotene.

## Construction sector

The construction sector is estimated to record an average annual growth rate of 11.1% during the Tenth Plan. The growth is supported by expansion in the civil engineering subsector, growing at 9.3% per annum, followed by residential subsector at 16.5% and non-residential at 9.1%. The sector provided 1.2 million jobs, constituting 8.8% of total employment. From 2011 to 2014, a total of 29,435 construction projects were awarded, valued at RM470 billion. These were largely private sector projects totalling RM387 billion or 82% of total value, with the remaining RM83 billion from public sector projects.

Among the large-scale projects implemented were Klang Valley Mass Rapid Transit (KVMRT) Line 1 from Sungai Buloh to Kajang, Electrified Double-Track Railway from Ipoh to Padang Besar, Light Rail Transit (LRT) extension from Kelana Jaya and Sri Petaling to Putra Heights, Kuala Lumpur International Airport 2 (KLIA2), Central Spine Road from Kuala Lipis to Bentong, and Re-gasification Terminal (RGT-1) in Melaka. The implementation of these projects reflects the increasing use of technology and modern practices in the construction sector right from the design phase through to execution and maintenance.

### Box 8-4

#### Highlights - Construction Sector

The use of technology and modern construction methods such as building information modelling (BIM) and industrialised building system (IBS) were crucial in improving the efficiency of construction project implementation. BIM was used in projects such as the National Cancer Institute in Putrajaya - the first government project that used the technology, and in the construction of the administration complex of the Malaysian Anti-Corruption Commission in Shah Alam.

## Small and medium enterprises

Based on the Economic Census 2011, there were 645,136 SMEs, making up 97.3% of total business establishments. To reflect the current business environment, the SME definition was revised on 1 January 2014, as shown in Exhibit 8-4. The maximum threshold for sales turnover was adjusted from RM25 million to RM50 million and for employment from 150 to 200 workers. As a result, the share of SMEs to total establishments increased from 97.3% to 98.5%.

90.1% of SMEs are in the services sector, with 5.9% in manufacturing, 3% in construction, and the remaining in agriculture, and mining and quarrying. SMEs are estimated to grow at 9.3% and contribute 35% to GDP, 59% to employment and 19% to total exports in 2015 as shown in Exhibit 8-5.

The average labour productivity of SMEs between 2011 and 2013 was RM50,818 per worker, which is lower than the national average productivity level at RM59,131 per worker for the same period (based on 2005 prices). However, the productivity level of SMEs in the services sector was lower at RM47,699 per worker as shown in the Exhibit 8-6.

Exhibit 8-4

#### New definition of SMEs effective January 1, 2014

		Micro	Small	Medium
Manufacturing	Sales turnover	Less than RM300,000	RM300,000 to less than RM15 million	RM15 million to less than RM50 million
	Employees	Less than 5	5 to less than 75	75 to less than 200
Services and other sectors	Sales turnover	Less than RM300,000	RM300,000 to less than RM3 million	RM3 million to less than RM20 million
	Employees	Less than 5	5 to less than 30	30 to less than 75
		Micro	Small	Medium

Source: SME Corporation Malaysia

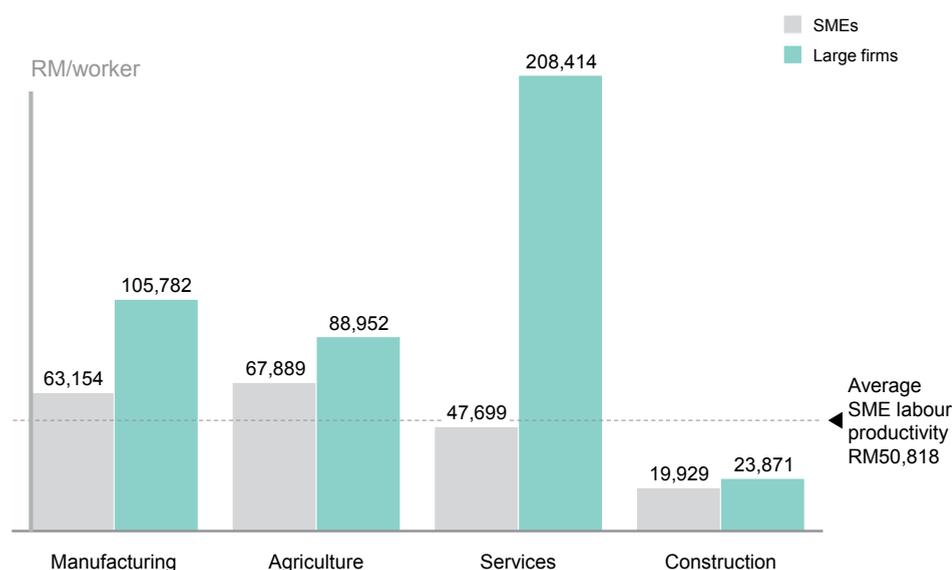
Exhibit 8-5

**Major indicators for SMEs, 2010-2020**

Item	2010	2015	2020	Tenth Plan	Eleventh Plan
				Achieved	Target
<b>Contribution of SMEs to GDP</b> (RM billion in 2010 prices)	262.9	371.9	578.6	1,605.8	2,420.8
<b>Annual growth rate (%)</b>	8.3	9.3	9.3	7.5	9.3
<b>Share to GDP (%)</b>	32.0	35.0	41.0	33.4	38.4
<b>SMEs exports</b> (RM billion in 2010 prices)	100.3	147.8	243.7	634.0	995.0
<b>Share to total exports (%)</b>	15.7	19.0	25.0	17.3	22.4
<b>Share to total employment (%)</b>	57.1	59.0	62.0	57.8	60.7

Note: 2015 numbers are estimated; 2020 numbers are forecasted  
Source: Economic Planning Unit; Department of Statistics Malaysia; and SME Corporation Malaysia

Exhibit 8-6

**SME labour productivity level by sector, 2011-2013**

Notes: Based on 2005 prices  
Source: SME Corporation Malaysia

The lower productivity level was partly due to the dominance of microenterprises in the services sector, involved in basic and low value add businesses such as retail, restaurants and accommodation.

Several initiatives contributed to the growth of SMEs, including developing the SME Masterplan 2012-2020. The role of SME Corporation Malaysia (SME Corp.) was also strengthened and the coordination mechanism streamlined to enable the Master Plan to be implemented effectively.

**Liberalisation and regulatory reform**

During the Tenth Plan, the Government autonomously liberalised the services sector and continuously improved the ease of doing business to boost investor confidence and enhance competitiveness. In 2012, 18 services subsectors were liberalised to allow up to 100% foreign equity within the wholesale and retail trade, healthcare, professional services, environmental services, telecommunications, courier, and education subsectors. At the regional level, Malaysia implemented 80% of the total 505 measures under the ASEAN Economic Community (AEC) Blueprint. This indicates the Government's commitment towards realising the AEC, which envisions Southeast Asia as a single market and production base with free flow of goods, services, and investments. In addition, regulatory reforms and business process improvements were undertaken to complement the liberalisation initiative. This resulted in Malaysia being ranked at 18<sup>th</sup> position out of 189 economies in the 2015 World Bank's Doing Business Report.

The Government also enforced the Competition Act 2010 on 1 January 2012. The Act provides a regulatory framework against anti-competitive practices, such as the formation of cartels, and horizontal and vertical agreements. In 2013, the Malaysian Competition Commission issued two landmark decisions related to an aviation market-sharing deal and infringement of dominant position by a steel manufacturer. This reflects the Government's commitment towards a fair and competitive business environment.

## Innovation

Efforts to strengthen the innovation ecosystem were undertaken along four key areas, namely shaping a supportive ecosystem, creating opportunities, putting enablers in place, and providing funding. Initiatives included establishing specialised agencies to drive the innovation programmes such as the Agensi Inovasi Malaysia (AIM), National Science and Research Council (NSRC), and Yayasan Inovasi Malaysia (YIM). Higher order thinking skills (HOTS) programmes were implemented in schools and tertiary institutions to inculcate a thinking culture to enable the next generation of Malaysians to think creatively. Khazanah Harta Intelek Malaysia, a centralised repository of Intellectual Properties (IPs) arising from Government research programmes, was created to catalyse commercialisation. Intermediaries such as PlaTCOM Ventures Sdn. Bhd. (PlaTCOM) and Steinbeis Malaysia Foundation (Steinbeis) were set up to enhance collaboration and provide advisory services to both researchers and companies in order to connect knowledge creators and those who need the knowledge. Online programmes such as UReka and GIGIH were implemented to provide open innovation platforms where people were given the opportunity to share ideas, seek expertise, form collaborative teams, attract funders and customers as well as generate additional income through proven innovative and sustainable business models.

There have been many recent successes in Malaysia. These include consumer-focused apps to improve the delivery of taxi services such as MyTeksi and Sunlight Taxi, and improvements in production processes that ensure the consistency of quality in the food and beverages industry, which have enabled local food chains to expand regionally such as Secret Recipe, Nelson's, and Old Town Kopitiam.

The effectiveness of these initiatives were measured based on national innovation-related indicators and international rankings. The gross expenditure on research and development (GERD) as a share of GDP increased from 1.07% in 2010 to 1.13% in 2012, as shown in Exhibit 8-7. Research and development (R&D) by business enterprises accounted for 64.4% of GERD in 2012, conducted mainly by MNCs and large local companies. In 2014, Malaysia was ranked 33<sup>rd</sup> out of 143 countries in the Global Innovation Index (GII) and 20<sup>th</sup> out of 144 countries in the Global Competitiveness Index (GCI). In both global indices, Malaysia was ranked second highest among ASEAN countries.

## Regional economic corridors development

Regional economic corridors continued to contribute towards sector growth and overall economic development. The five regional economic corridors, attracted total realised investment of RM174.5 billion across priority economic sectors including creative and content development, tourism, E&E and downstream petrochemicals processing. 427,100 jobs were created as a result of these realised investments.

\* \* \*

The Malaysian economy has continued to grow despite external shocks and challenges on the domestic front. Going forward, the economy continues to be susceptible to external challenges, including global economic shocks, geopolitical risks and climate change. On the domestic front, the nation will continue to transform and modernise the various economic sectors. A number of challenges remain to be addressed during the Eleventh Plan, including issues related to human capital, productivity, innovation, regulatory and institutional challenges, and access to financing.

Exhibit 8-7

**Major indicators for R&D, 2010–2012**

	2010		2012	
	RM billion	%	RM billion	%
<b>R&amp;D expenditure by sector</b>				
<b>Total GRIs and IHLs</b>	<b>2.98</b>	<b>35.0</b>	<b>3.77</b>	<b>35.6</b>
Government research institutes (GRIs)	0.52	6.0	0.73	6.9
Institutes of higher learning (IHLs)	2.46	29.0	3.04	28.7
<b>Business Enterprises (BEs)</b>	<b>5.53</b>	<b>65.0</b>	<b>6.84</b>	<b>64.4</b>
<b>Total</b>	<b>8.51</b>	<b>100</b>	<b>10.61</b>	<b>100</b>
<b>GERD/GDP (%)</b>	<b>1.07</b>		<b>1.13</b>	
<b>Human Resource in R&amp;D</b>				
<b>Total headcount of R&amp;D personnel</b>	<b>88,314</b>		<b>103,986</b>	
<b>Total Full-Time Equivalent (FTE) of R&amp;D personnel</b>	<b>50,484</b>		<b>62,807</b>	
Researchers per 10,000 labour force	53.08		57.45	
<b>Type of research (expenditure)</b>	<b>RM billion</b>	<b>%</b>	<b>RM billion</b>	<b>%</b>
Basic research	1.52	17.9	3.66	34.5
Applied research	5.8	68.2	5.36	50.5
Experimental research	1.19	13.9	1.6	15.0
<b>Total</b>	<b>8.51</b>	<b>100</b>	<b>10.62</b>	<b>100</b>

Source: Malaysia Science and Technology Information Centre

# Summary of focus areas

## Eleventh Malaysia Plan, 2016-2020



### Investing in competitive cities and regional economic corridors development

Developing city competitiveness master plans for four first-tier cities

Strengthening corridors to fuel regional development



### Transforming services

Fostering a dynamic environment for knowledge-intensive services

Implementing comprehensive and integrated governance reforms

Stepping up internationalisation of services firms

Enhancing management of investment incentives

Expanding modern services



### Energising manufacturing

Moving towards complex and diverse products

Enhancing productivity through automation

Stimulating innovation-led growth

Strengthening growth enablers

Ramping up internationalisation



### Modernising agriculture

Improving productivity and income of farmers, fishermen and smallholders

Promoting training and youth agropreneur development

Strengthening institutional support and extension services

Building capacity of agricultural cooperatives and associations along the supply chain

Improving market access and logistics support

Scaling up access to agricultural financing

Intensifying performance-based incentive and certification programmes



### Transforming construction

Enhancing knowledge content

Driving productivity

Fostering sustainable practices

Increasing the internationalisation of construction firms



### Growing dynamic SMEs

Enhancing productivity through automation and innovation

Strengthening human capital development

Enhancing ease of doing business

Increasing demand for SME Products and Services

Creating home-grown champions

Developing SMEs in Sabah and Sarawak



### Translating innovation to wealth

#### Enterprise innovation

Strengthening the governance mechanism

Enhancing demand-driven research

Strengthening industry-academia collaboration through intermediaries

Promoting private financing of research, development, commercialisation, and innovation

#### Social innovation

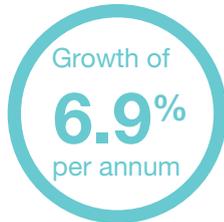
Strengthening collaboration through a whole-society approach

Developing a social financing model

Promoting higher order thinking skills to develop a dynamic society

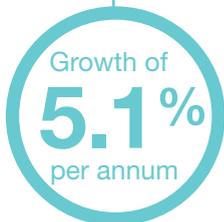
# SELECTED OUTCOMES

Contribution of RM3,488 billion or 56.5% to GDP with 9.6 million jobs



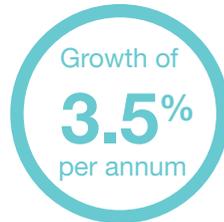
**Transforming services**

**Energising manufacturing**



Contribution of RM1,417 billion or 22.5% to GDP with 2.8 million jobs

Contribution of RM519 billion or 8.2% to GDP with 1.6 million jobs



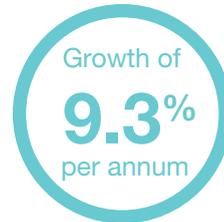
**Modernising agriculture**

**Transforming construction**



Contribution of RM327 billion or 5.5% to GDP with 1.2 million jobs

Contribution of RM2,421 billion or 38.4% to GDP with 9.5 million jobs across all sectors



**Growing dynamic SMEs**

**Investing in competitive cities and regional economic corridors**



Gross expenditure on R&D of GDP

70% of total R&D expenditure by Business Enterprises

**Translating innovation to wealth**



Cities with City Competitiveness Masterplans developed



Realised investment with 470,000 job opportunities created across five regional economic corridors



# Moving forward

## Eleventh Malaysia Plan, 2016-2020

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Accelerating the momentum of economic growth by expanding knowledge-intensive activities and producing complex products, increasing productivity and innovation, and investing in cities and regional economic corridors.

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During the Eleventh Plan, the focus is on accelerating the momentum of economic growth to place the economy on a strong foundation for sustained expansion and to withstand economic shocks. This is to ensure that Malaysia meets the per capita income target of US\$15,000 to be classified as a high-income economy by 2020. Achieving this target will entail further broadening of the economic base, venturing into knowledge-intensive and complex economic activities to generate high-paying jobs, improving overall efficiency and capacity through increased productivity and innovation, and introducing new sources of growth.

Therefore, strategies to re-engineer economic growth are developed along three dimensions and seven focus areas as follows:

*Propelling sectoral migration towards high value-added and knowledge-intensive economic activities*

- Focus area A: Transforming services
- Focus area B: Energising manufacturing
- Focus area C: Modernising agriculture
- Focus area D: Transforming construction

*Fostering the enabling ecosystem for sustainable growth*

- Focus area E: Growing dynamic SMEs
- Focus area F: Translating innovation to wealth

*Accelerating growth through competitive cities and regional economic corridors development*

- Focus area G: Investing in competitive cities and regional economic corridors

Two of these seven focus areas have been identified as game changers in the Eleventh Plan - namely Innovation and Competitive Cities. These game changers are expected to accelerate economic growth and create a more inclusive society with more balanced geographical development and distribution of wealth. Effective application of innovation in the economy will increase Malaysia's competitiveness and productivity, especially through collaboration between research and business, and strengthening the role of communities in innovative delivery of social services. As global competition for investment and talent is now between cities, Malaysia will develop several of its first-tier cities to become globally competitive and serve as growth catalysts.



## Focus area A

# Transforming services

In the Eleventh Plan, the development of the services sector will be guided by the Services Sector Blueprint, which aims to unlock the potential of the sector and transform it to become more knowledge-intensive and innovation-led. The sector is expected to grow at 6.9% per annum, contributing 56.5% to GDP in 2020, and providing 9.6 million jobs, as shown in Exhibit 8-8. To achieve these targets, five strategies will be implemented:

- **Strategy A1: Fostering a dynamic environment for knowledge-intensive services** by accelerating human capital development as well as enhancing access to technology and R&D;
- **Strategy A2: Implementing comprehensive and integrated governance reforms** by strengthening coordination and

collaboration between various stakeholders as well as modernising the current regulatory regime;

- **Strategy A3: Stepping up internationalisation** by assisting firms to export services through better access to funding, upskilling, and market intelligence;
- **Strategy A4: Enhancing the management of investment incentives** with a more effective, transparent, and performance-based incentives programme; and
- **Strategy A5: Expanding modern services** towards higher value-added subsectors, including the halal industry, ecotourism, and ICT.

Exhibit 8-8

### Major indicators for services sector, 2016-2020

Item	RM million in 2010 prices		% of total		Average annual growth rate, % Eleventh Plan
	2015	2020	2015	2020	Target
<b>Services value added</b>	<b>571,835</b>	<b>796,722</b>	<b>100</b>	<b>100</b>	<b>6.9</b>
Electricity, gas & water	27,094	32,830	4.7	4.1	3.9
Wholesale & retail trade, accommodation & restaurants	185,410	246,499	32.4	30.9	5.9
Transport, storage & communications	97,363	148,539	17.0	18.6	8.8
Finance, insurance, real estate & business services	121,328	168,270	21.2	21.1	6.8
Government services	94,152	127,684	16.5	16.0	6.3
Other services	46,487	72,900	8.1	9.1	9.4
<b>Labor productivity (RM/worker)</b>	<b>68,111</b>	<b>83,411</b>			<b>4.1</b>
<b>Services export (RM million in current prices)</b>	<b>146,387</b>	<b>195,890</b>			<b>6.0</b>
<b>Employment ('000)</b>	<b>8,396</b>	<b>9,552</b>	<b>60.9</b>	<b>62.5</b>	<b>2.6</b>
<b>Contribution of total services sector to GDP (%)</b>			<b>53.8</b>	<b>56.5</b>	<b>55.3</b>

Note: 2015 numbers are estimated; 2020 numbers are forecasted  
Source: Economic Planning Unit, Malaysia Productivity Corporation, Department of Statistics Malaysia

## Strategy A1 Fostering a dynamic environment for knowledge-intensive services

### Accelerating human capital development

Key structural challenges in human capital development will be addressed while developing soft skills needed by the services sector. Initiatives will focus on delivering the skills most critical to industries through existing graduate employability programmes. Greater collaboration between industries and higher education institutions will also be fostered, including the provision of more structured internship programmes. A co-funded scholarship programme between the Government and SMEs will be developed to enable the latter to tap on high-quality talent.

Within the ICT industry, a professional body to govern professional competencies and ethics in ICT will be considered to ensure ICT professionals' competencies are on par with global standards. This professional body will enhance the value of the profession, raise professional standards, review qualifications, provide assurance of quality, and serve as the central repository database of registered ICT professionals. It will also enable Malaysia to be a signatory to the Seoul Accord, a multilateral agreement among agencies responsible for the accreditation of tertiary level computing and IT-related qualifications to ensure that Malaysian ICT qualifications are internationally recognised.

In addition, ICT will be offered as a compulsory subject at the lower secondary level and as an elective at the upper secondary level to ensure students have a sound ICT background prior to enrolling in higher education. The ICT subject will also be strengthened to integrate computational thinking into learning modules, in addition to programming languages, hardware and software design, databases and information retrieval.

### Enhancing access to technology and R&D

The utilisation of technology, particularly ICT, will be enhanced among services firms through the Embed ICT programme to reduce dependence on low-skilled foreign workers and to boost productivity. In addition, the funding mechanism for R&D and commercialisation

(R&D&C) that is mainly supply-driven today will be replaced with a mechanism that is demand-driven and private sector-led.

The Research Incentive Scheme for Enterprises will be expanded to enhance technology absorption and allow companies to hire experienced R&D researchers by partially funding the monthly wages of researchers for a specified period. This incentive is expected to attract technology leaders to set up R&D centres or centres of excellence (CoE) in prioritised technology focus areas, such as big data analytics, cloud computing, and the Internet of Things (IoT). In addition, access to digital infrastructure, particularly in Sabah and Sarawak, will be further improved to spur the growth of knowledge-intensive services.

## Strategy A2 Implementing comprehensive and integrated governance reforms

In the Eleventh Plan, coordination and collaboration between ministries, agencies, and other relevant stakeholders will be strengthened to improve their effectiveness and efficiency. The Special Committee on the Services Sector will oversee the implementation of the services sector development strategies and action plans, particularly the Services Sector Blueprint, the Logistics and Trade Facilitation Master Plan (LTFMP), and the Construction Industry Transformation Programme (CITP). The Committee will also ensure cross-sectoral policy coherence with national development objectives. For the logistics industry, the National Logistics Task Force will be set up to lead the implementation of the LTFMP.

Comprehensive and integrated governance reforms will be pursued to ensure a thriving and competitive environment for the services sector. The National Policy on the Development and Implementation of Regulations (NPDIR) to modernise the current regulatory regime will be fully implemented to include states and local governments. The capacity of regulatory coordinators in ministries and agencies will be strengthened to ensure adherence to the NPDIR. The regulatory reform will also be aligned to Malaysia's commitments in existing free trade agreements and unilateral liberalisation initiatives. A regulatory portal will be established to improve access to and transparency of regulations.

### Strategy A3

## Stepping up internationalisation of services firms

Given the low number of services exporters, it is imperative to build their export capabilities and enhance their readiness to export. Among the initiatives to strengthen the capabilities of services firms to export are: a dedicated Services Sector Guarantee Scheme; an improved Services Export Fund (SEF) to provide assistance to services firms to expand overseas; upskilling programmes to improve service providers' knowledge of international market opportunities, export requirements, and processes. In addition, the franchise development programme will be improved and efforts will be taken to further harmonise markets.

### Strategy A4

## Enhancing the management of investment incentives

The current investment incentive programme will be replaced with a more effective, transparent, and performance-based incentive programme to attract quality investment and boost productivity. The Incentive Coordination and Collaboration Office (ICCO) will be established under the Malaysian Investment Development Authority (MIDA) to act as a coordinator for all investment incentives. The ICCO will enable cross-agency visibility and allow for a more holistic assessment of incentives through structured information sharing between the approving government agencies. In addition, ICCO will undertake an impact assessment on the incentives provided, besides assisting in high-level monitoring from a demand perspective.

### Strategy A5

## Expanding modern services

The Eleventh Plan will focus on the development of subsectors and industries that are tradeable, have high knowledge intensity and linkages with the rest of the economy, and the potential to generate high-income jobs. Industries such as Islamic finance, ICT, oil and gas services, private healthcare, private higher education, ecotourism, the halal industry, and professional services will be further promoted.

### The halal industry

In the Eleventh Plan, the halal industry will adopt strategic approaches to further develop the industry as a source of competitive advantage and catalyst for growth, encourage innovation and creativity anchored on Islamic principles and values, as well as being pragmatic in implementing development strategies. Institutional and regulatory reforms will be undertaken to increase the efficiency and effectiveness of relevant agencies governing the halal industry. A business-friendly ecosystem and greater collaboration between agencies related to halal certification and auditing processes will be enhanced. In addition, special preference in public sector procurement for halal-certified products and services will be promoted to support the growth of the industry.

To facilitate international market penetration, Malaysian halal standards will be linked to international standards to enhance global acceptance. Local industry players will be incentivised to obtain halal certifications to increase the halal offerings in the domestic market and position Malaysia as a global halal hub. In addition, the halal services industry will be further intensified through the development of a regional distribution centre that is equipped with an e-trading platform to link local halal suppliers to the global supply chain. Growth in the industry will be catalysed through innovation and R&D. Leveraging Malaysia's strength in palm oil derivatives, the alternative ingredients industry will be further developed to produce halal ingredients thereby strengthening Malaysia's role in the global trade of halal ingredients.

## Islamic finance

The strong position of Malaysia as a global Islamic finance marketplace will continue to be reinforced. This will involve the introduction of innovative Islamic financial products and services to meet the diverse global demand for Shariah-compliant financial solutions. Efforts will continue to enhance the diversity of industry players, increase vibrancy in the Islamic financial markets, and promote Malaysia as the referral centre for Islamic financial transactions.

## Information and communications technology products and services

In the ICT industry, niche areas will be further promoted and export capabilities enhanced to ensure that Malaysia captures a bigger export market for ICT products and services. Within the identified niche areas – digital content, IoT, data centres and cloud services, cyber security,

software development and testing, and big data analytics – the ICT ecosystem will be strengthened, including the capacity of start-ups, talent, infrastructure, R&D&C, and governance.

The quality of local digital content will be improved to further strengthen the export potential of local digital content. The number of registered digital content IPs will be increased and exploited as collateral for loan financing, product line expansion, and licensing and merchandising. Emphasis will be given to animation, gaming, simulation, and virtual reality in the areas of education, entertainment, and healthcare. Three main initiatives that will be implemented are attracting anchor companies to serve as industry drivers, building local capacity and capability, and raising global market access through a better understanding of global technology trends towards greater adoption of digital distribution and new business models.

Exhibit 8-9

### Modern services

Sub-sector	Description
 <b>Halal industry</b>	Develop halal industry by linking Malaysian halal standards to international standards and promote the alternative ingredients industry
 <b>Islamic finance</b>	Reinforce Malaysia's position as a global Islamic finance marketplace through innovative Islamic financial products and services
 <b>Information and communications technology</b>	Improve exports of ICT products and services by developing ICT technology focus areas, infusing ICT in other sectors and strengthening ICT industry support ecosystem
 <b>Oil and gas services</b>	Develop Malaysia as an oil and gas hub in the Asia Pacific region through strengthening upstream capability, and improve collaboration between industry and higher learning institutions
 <b>Private healthcare</b>	Grow healthcare travel through international accreditation, increased insurance coverage, and leverage regional referral network
 <b>Private higher education</b>	Continue to develop reputable and high-quality private higher education institutions through ratings and quality assessments and self-regulation incentives
 <b>Ecotourism</b>	Position Malaysia as a premier ecotourism destination by leveraging biodiversity assets and increased branding and promotion
 <b>Professional services</b>	Promote Malaysia as an outsourcing centre for professional services to increase exports through capacity building

### Oil and gas services

The development of the oil and gas services industry (OGSI) will be enhanced further towards Malaysia's aspiration of becoming an oil and gas services hub in Asia Pacific. The development of OGSI will focus on three technology clusters namely, process engineering, sub-surface, and marine systems. Efforts will continue to be directed towards strengthening capabilities of local companies to offer the whole range of upstream engineering, procurement, construction, installation, and commissioning services. The establishment of Industry Centre of Excellence (ICoE) will foster stronger collaboration between industry and institutions of higher learning in identifying technology needs, enhancing manpower development, and promoting local technologies overseas. Participating higher education institutions include Universiti Teknologi Malaysia, Universiti Teknologi Petronas, and Universiti Malaya.

### Private healthcare

In further promoting the healthcare travel services industry, focus will be given to attract healthcare travellers to seek treatment in areas such as oncology, cardiology, orthopaedic, reproductive help, and dental treatment. Encouraged by the increasing global demand for natural healthcare, the traditional and complementary medicine industry will be further developed with an aim to become a regional referral centre and hub. International accreditation, increased insurance coverage and portability, and regional referral network will be fully leveraged to ensure Malaysia attracts higher in-patient mix and revenue-per-patient in the identified areas.

### Private higher education

Continued focus will be given to developing reputable and high-quality private higher education institutions. This will involve increasing their participation in the rating and quality assessment system, where institutions with proven track records will be allowed to self-regulate. Academic staff will be given greater access to scholarships and loans to improve their academic qualifications. A targeted financing mechanism will be developed to ensure eligible students receive adequate funding. To promote the export of education services,

appropriate measures will be introduced to attract students from targeted markets, such as the People's Republic of China and Central Asia.

### Ecotourism

Ecotourism will be positioned as a premier segment of the tourism industry by leveraging biodiversity assets through extensive protection and conservation, supported by targeted branding and promotion activities. Ecotourism products will be developed along the value chain of high-yield tourism by attracting reputable investors who are competent in the conservation and preservation of nature and wildlife. Experience-enriching elements, such as tourism facilities, interpretive centres, safety measures, and communications, will be strengthened. The development of ecotourism will also offer greater opportunities for local communities to participate in related income-generation activities to raise living standards.

### Professional services

Malaysia will continue to be promoted as an outsourcing centre for professional services to increase exports in knowledge-intensive activities, such as oil and gas, aviation maintenance, repair and overhaul (MRO), and construction. Professional services firms will also be encouraged to build capability and scale in niche areas through industry consolidation, partnerships with larger corporations or form multi disciplinary consortia when bidding for projects, either domestically or internationally. This will enable firms to leverage on the trust, network, synergy, and shared technical know-how when venturing abroad. Professional services firms will also be encouraged to use Free Trade Agreements (FTAs) and Mutual Recognition Agreements (MRAs) to facilitate internationalisation of the industry. Non-tariff barriers in targeted markets will be reduced through proactive government-to-government negotiations.



## Focus area B Energising manufacturing

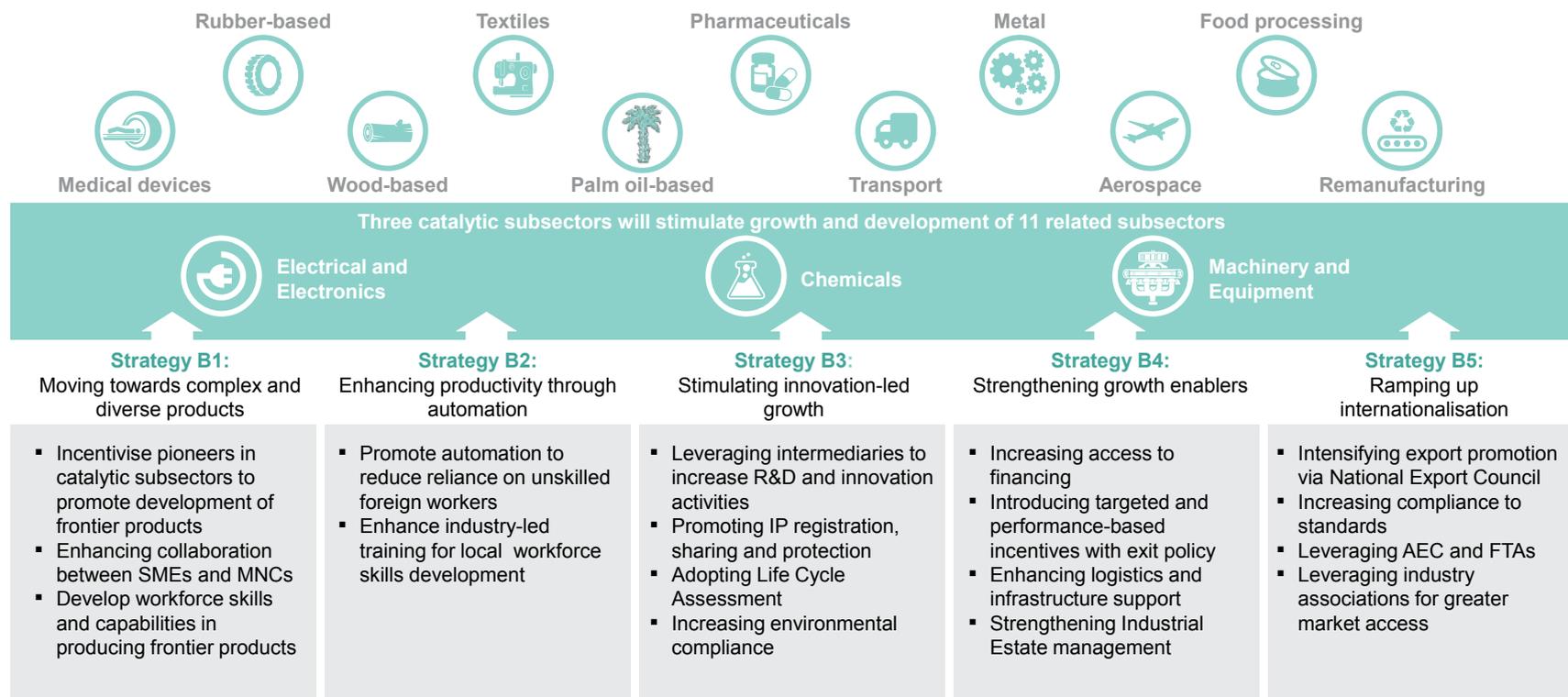
In the Eleventh Plan, the manufacturing sector will transition towards more high-value, diverse and complex products, driven by three catalytic subsectors, namely chemicals, E&E and machinery & equipment (M&E) as well as industries with high potential growth such as medical devices and aerospace. These subsectors have strong interlinkages to other manufacturing subsectors and have demonstrated capabilities and potential to deliver more complex and high value added products. The manufacturing sector is expected to

grow at 5.1% per annum and contribute 22.5% to GDP as well as 18.2% of total employment by 2020.

This transition will be underpinned by enhanced R&D, more sustainable manufacturing practices, greater compliance to global standards, and collaboration between stakeholders. To this end, five strategies have been identified to grow and energise the manufacturing sector, as shown in Exhibit 8-10.

Exhibit 8-10

### Strategic framework for manufacturing sector



- **Strategy B1: Moving towards complex and diverse products** by strengthening the output base and increasing exports of frontier products;
- **Strategy B2: Enhancing productivity through automation** supported by developmental and performance-based financial assistance and collaboration with industry;
- **Strategy B3: Stimulating innovation-led growth** by engaging with intermediaries to increase R&D and innovation activities as well as implementing sustainable consumption and production practices;
- **Strategy B4: Strengthening growth enablers** by improving access to financing, prioritising performance-based incentives as well as increasing competitiveness of the logistics supply chain and industrial estates; and
- **Strategy B5: Ramping up internationalisation** by providing targeted support to exporters, leveraging the AEC and FTAs as well as encouraging smart partnerships between SMEs and MNCs.

## Strategy B1 Moving towards complex and diverse products

Strategic diversification of the manufacturing sector will be promoted to strengthen its output base and increase exports. The Complexity Analysis Study of Malaysia's Manufacturing Industries in 2014 identified 238 frontier products which are complex, technologically feasible, and valuable for strategic diversification. These products include electric lasers, photon beams, apparatus using X-rays, beauty and cosmetics preparations, lubricating products, power tools as well as electric ignitions.

Manufacturers will be incentivised to diversify into frontier products which will be included in the promoted list of products under MIDA. The scope of funds under various agencies will be expanded to encourage SMEs and start-ups to venture into frontier industries. Partnerships between SMEs and large companies, including MNCs,

will be encouraged to develop the capabilities of SMEs to venture into frontier products and gain access to export markets. A task force will be established to foster collaborative research in the chemicals and M&E subsectors by emulating the model of the Collaborative Research in Engineering, Science & Technology (CREST) Centre for the E&E subsector. In addition, skills gaps in the identified industries producing frontier products will be bridged through closer collaboration between industries and technical and vocational education and training (TVET) institutions.

## Strategy B2 Enhancing productivity through automation

Measures to increase productivity will be undertaken by increasing automation and enhancing workforce skills development. Greater automation and technology utilisation will be encouraged through developmental and performance-based financial assistance to reduce the high dependence on unskilled foreign workers. The current levy system will be expanded and a cap on employment of unskilled foreign workers will also be introduced. The emphasis on skills development will be driven by enhancing industry-led training through greater collaboration between industry experts and training institutes to ensure workforce readiness.

## Strategy B3 Stimulating innovation-led growth

Manufacturers will be encouraged to undertake R&D and innovation activities to improve their products and processes by leveraging existing research entities through intermediaries. Strategic alliances with developed economies will be increased, especially in the field of technology, innovation and R&D, to strengthen capabilities in producing high-value products. Intermediaries that have been

established include Steinbeis, SIRIM-Fraunhofer, and PlatCOM. These intermediaries will engage the right experts to solve manufacturing problems and strengthen collaboration between manufacturers and research entities. The collaboration will cut the cost of conducting R&D, enhance technical knowledge as well as improve work processes of manufacturers. In addition, the sharing and protection of IP rights will be promoted, with clear and transparent guidelines formulated to ensure fair returns for manufacturers and researchers. Industry associations and chambers of commerce will also be leveraged as platforms to further promote R&D and technology adoption.

Sustainable consumption and production practices will be promoted in manufacturing processes, particularly by adopting life cycle assessment to optimise raw materials usage. The manufacturing sector development will also be streamlined to ensure compliance with multilateral environmental commitments and other international environmental standards in order to overcome non-tariff barriers.

## Strategy B4 Strengthening growth enablers

Financing, incentives, logistics services, and industrial estates (IEs) are key enablers of growth for the manufacturing sector. Improvements will be undertaken to strengthen the enablers including encouraging financial institutions to better understand innovation processes and risks to improve access to financing, mainly by engaging panels of experts when evaluating business and innovation projects in new areas. Specific and performance-based incentives, with clear key performance indicators and exit policy, will be introduced to raise productivity and spur innovation.

A more integrated logistics supply chain will be developed to drive growth and increase competitive advantage. A full life cycle costing approach will be adopted to ensure viability and sustainability of the IEs, supported by a self-sustaining park management model to enhance governance and competitiveness. MIDA will utilise a centralised database to streamline information on IEs to facilitate investment promotion.

## Strategy B5 Ramping up internationalisation

The Malaysia External Trade Development Corporation (MATRADE) and related agencies will strengthen their capability to assist export-ready companies across all sectors to penetrate a wider export market and strengthen product distribution. The Mid-Tier Companies Development Programme will be further intensified to accelerate export growth by mid-tier companies (companies with average annual revenues of RM20 million to RM500 million) by providing targeted market intelligence, building export capabilities, and matchmaking mid-tier companies with suitable business partners abroad. In addition, the newly established National Export Council will address gaps and challenges in the export supply chain.

The AEC and FTAs will be leveraged to further ramp up exports and investments. MATRADE will promote greater intra-ASEAN industry linkages to strengthen supply chain and production networks to maximise opportunities in ASEAN and other markets. To facilitate market access and protect investment, companies will be encouraged to utilise provisions in FTAs when venturing abroad. The role of industry associations will also be further strengthened to deal with global competition through smart partnerships with industry associations in target export markets. In addition, greater collaboration between MNCs and SMEs will continue to be fostered through the Vendor Development Programme and the factory-in-factory concept. MNCs will also be encouraged to source for inputs locally, particularly from SMEs.



## Focus area C

# Modernising agriculture

In the Eleventh Plan, the agriculture sector, namely the agro-food and industrial commodity subsectors will be transformed and modernised into a high-income and sustainable sector. This sector is expected to grow at 3.5% per annum, contributing 7.8% to GDP in 2020. Industrial commodities will contribute 57% and agro-food 42.4% to the total agriculture value added in 2020. Efforts will be focused on ensuring food security, improving productivity, increasing skills of farmers, fishermen, and smallholders, enhancing support and delivery services, strengthening the supply chain and ensuring compliance to international market requirements. The development of the sector will also take into account the impact of climate change on sustainability of agricultural practices. Special focus will also be given to the industrial commodities smallholders to further boost productivity through the infusion of modern technologies with the aim of reducing labour dependency as well as to address low commodity prices through income stabilising measures. Seven strategies have been identified to spur the growth of the agriculture sector.

- **Strategy C1: Improving productivity and income of farmers, fishermen, and smallholders** by accelerating adoption of ICT and farming technology, preserving and optimising agricultural land, and intensifying R&D&C in priority areas;
- **Strategy C2: Promoting training and youth agropreneur development** through collaboration across agencies and the private sector to modernise farming techniques and nurture agribusiness start-ups;
- **Strategy C3: Strengthening institutional support and extension services** by streamlining extension services and encouraging advisory services from industry and academia;
- **Strategy C4: Building capacity of agricultural cooperatives and associations along the supply chain** by vertically integrating the supply chain for selected crops, enhancing management skills, and pooling resources for promotion and exports;
- **Strategy C5: Improving market access and logistics support** by strengthening logistics and enhancing access to domestic and international marketplaces;

- **Strategy C6: Scaling up access to agricultural financing** by restructuring and providing a more flexible payment mechanism as well as increasing sustainability of financing mechanisms for replanting programmes; and
- **Strategy C7: Intensifying performance-based incentive and certification programmes** by encouraging farmers to get certified, and prioritising certified farms for incentives and support.

### Strategy C1

## Improving productivity and income of farmers, fishermen, and smallholders

### Accelerating adoption of ICT and farming technology

The use of smart farming technologies and ICT in plantation, farming, livestock, and fishing activities will be intensified to improve production efficiency and reduce dependency on labour. ICT-based applications to support farm and plantation management, precision farming, and monitoring and surveillance will be expanded to increase productivity and reduce the cost of production. Mobile phone applications and portals will be used to disseminate real-time information on market demand and prices, early detection and warning alerts on disease outbreaks as well as provide interactive platforms for technical advice.

### Preserving and optimising agricultural land

State governments will be encouraged to gazette agricultural land, particularly granary areas and permanent food production parks, to preserve land for farming. In this regard, incentives in the form of infrastructure including farm roads and grants will be provided to compensate for loss of revenue. Integrated farming and inter-cropping in farms and plantation areas will be intensified to optimise the use of agricultural land to increase the income of farmers. A land bank database for idle land will be established through the cooperation of ministries and state land offices. Such land subsequently will be leased to farmers and corporations for agricultural ventures.

### **Intensifying research & development and commercialisation in priority areas**

Focus will be given to R&D&C, particularly in the development of quality seeds, breeds, fries and animal feeds, integrated pest and disease management, as well as product improvement and development of green products. In addition, research will also focus on addressing climate change issues to ensure crops, livestock, and fisheries are climate resilient. Collaboration in agricultural research will be spearheaded by a research management agency (RMA) with support from existing agricultural research agencies, such as the Malaysian Agricultural Research and Development Institute (MARDI), Malaysian Palm Oil Board (MPOB), Malaysian Rubber Board (LGM), universities, and private research centres. This is to ensure that the research is participatory and market-driven to promote the uptake of solutions among industries and farmers.

### **Strategy C2**

#### **Promoting training and youth agropreneur development**

Focus will be given to enhancing the agricultural and entrepreneurship skills of farmers to modernise the sector. The National Agricultural Training Council (NATC) and Institute of Malaysian Plantation and Commodities (IMPAC) will collaborate with higher learning institutions and industry players to continuously review existing training curriculums to meet industry demand. The current skill sets of farmers, fishermen, and smallholders will be assessed and upskilling programmes introduced to assist them in adopting modern technologies and good agricultural practices.

Entrepreneurship development programmes will be improved through collaboration among the NATC, IMPAC, Malaysian Global Innovation & Creativity Centre (MaGIC), and National Institute of Entrepreneurship (INSKEN) to assist and nurture more start-ups, particularly by young agropreneurs, into successful and sustainable agribusinesses.

Existing facilities in agricultural training institutes will be optimised to undertake entrepreneurial courses. In addition, the young agropreneurs programme, a collaborative effort between Agrobank, universities, and agricultural training institutes, will be further promoted to attract undergraduates into agribusinesses. Participants of this programme will be given priority in obtaining start-up grants and soft loans.

### **Strategy C3**

#### **Strengthening institutional support and extension services**

Extension services provided by various agencies will be reviewed and streamlined based on location, agricultural activities, and relevance of services provided. Extension officers will be pooled at these establishments to offer one-stop advisory services to farmers, fishermen, and smallholders. The officers will be trained in areas such as livestock, aquaculture, oil palm, rubber, modern technologies, sustainable practices, and managing climate change impact. Modern technologies, such as remote sensing and drones will be used for planning, surveillance, and monitoring activities by the extension officers. In addition, the private sector, universities, and farmer associations will be encouraged to provide advisory and technical services in specialised areas.

### **Strategy C4**

#### **Building capacity of agricultural cooperatives and associations along the supply chain**

A cluster-based approach that vertically integrates production, quality control, processing, and marketing will be promoted to encourage participation of cooperatives and associations in agro-food and industrial commodities along the supply chain. This approach will assist in securing demand contracts, enabling better farm-gate prices and profit-sharing from processing activities, and ensuring sustainable income for farmers and smallholders. Specific clusters will be developed for rubber, cocoa, fruits and vegetables. To ensure the successful implementation of the clusters, the cooperatives and associations, will be managed by professionals appointed by the cooperatives or area farmers' organisations.

In addition, the capacity of cooperatives and associations including fishermen associations in the area of management, finance, investment, and marketing will be strengthened to enable them to undertake new business ventures along the supply chain. Fishermen associations will be incentivised to assist members in purchasing deep-sea vessels equipped with modern technologies through special schemes. In the area of industrial commodities, assistance will be provided to smallholders in the establishment of new cooperatives. Professionalism in the management of

cooperatives will be enhanced with the placement of young agropreneurs programme participants to infuse entrepreneurship and dynamism. In addition, cooperatives and associations will be encouraged to pool their collective resources and participate in various local and international events to showcase their products and secure contracts. Assistance in the form of matching grants and soft loans will be provided for product testing, packaging, and promotional activities at cooperative or association-level.

## Strategy C5

### Improving market access and logistics support

Marketing of agricultural products will be improved by linking producers to commercial outlets, establishing more market outlets and increasing market-compliant products. Online marketing, promotion, and branding will also help stimulate product sales. Direct involvement of the Federal Agricultural Marketing Authority (FAMA) in the marketing of agricultural produce through contract farming arrangements will be reviewed. In addition, MATRADE will intensify the promotion of agricultural products in relevant international markets through trade and food exhibitions with the collaboration of agriculture attachés under the Ministry of Agriculture and Agro-Based Industry. Similarly, promotion for industrial commodities including palm oil, rubber, timber, and timber products will be intensified through the efforts of overseas offices of the MPOB, Malaysian Palm Oil Council, Malaysian Rubber Export Promotion Council and Malaysian Timber Council, under the Ministry of Plantation Industries and Commodities. The logistics support for collection, distribution and marketing of agricultural produce as well as fishery products will be improved to ensure quality, minimise post-harvest loss, and reduce marketing cost. Additional collection and distribution centres will be established in new and existing production areas, while cold storage and handling facilities will be provided and upgraded in fishery complexes, ports, and airports based on demand to facilitate the export of perishable products. The use of halal and green logistics will be emphasised to increase the marketability of agricultural exports.

## Strategy C6

### Scaling up access to agricultural financing

Government funding through Agrobank will be restructured from fixed-term financing to flexible repayment based on harvest cycles of agro-food

commodities. The current practice of loan repayment for paddy based on harvesting cycles will be extended to other agro-food commodities, such as aquaculture and vegetables. In addition, these loans will have greater flexibility, where credit insurance will be allowed in place of collateral requirements.

The suitability of the current mechanism in financing the replanting of rubber through the collection of cess will be explored for extension to oil palm, cocoa, and pepper. This is to ensure the availability of sustainable funds to finance long-term replanting activities. The difference between actual replanting cost and total cess collection will be covered through a soft loan scheme. The management of the loan scheme will be undertaken by smallholder cooperatives or Agrobank for the case of independent smallholders, while loans for organised smallholders will be managed by the respective agencies, such as the Rubber Industry Smallholders Development Authority (RISDA), Sabah Rubber Industry Board, and Malaysian Cocoa Board.

## Strategy C7

### Intensifying performance-based incentive and certification programmes

Existing input-driven subsidies will be gradually replaced with performance-based incentives to ensure productivity-led assistance. Incentives will be provided to encourage compliance of farmers and smallholders to the Malaysian Good Agricultural Practices (MyGAP) certification and other certifications such as the Malaysian Sustainable Palm Oil (MSPO), a sustainable palm oil certification scheme. This is to ensure farm produce complies with sustainable agricultural practices and food safety requirements to command premium prices.

Certified farms will be given priority for grants or soft loans. In addition, the MyGAP certification will be streamlined according to the Global GAP requirements to increase market access, particularly to the European Union. The benefits of MyGAP certified products will be promoted to consumers through campaigns and awareness programmes. For industrial commodities, quality certification of products such as palm oil, cocoa and pepper, and sustainable forest management certification for forest plantation will be encouraged. The MSPO will be promoted among plantations and smallholdings to ensure palm oil from Malaysia complies with sustainable practices to enable them gain better market access. In addition, the Malaysian Timber Certification Scheme, an internationally recognised national timber certification scheme, will also be promoted.



## Focus area D

# Transforming construction

The construction sector is becoming more important due to higher demand for modern and efficient infrastructure in line with the aim of becoming an advanced nation. The construction sector is expected to grow at 10.3% per annum with a contribution of RM327 billion (5.5%) to GDP by 2020. The Government will introduce the Construction Industry Transformation Programme (CITP), 2016-2020, to propel the industry forward and meet market demand.

In the Eleventh Plan, efforts to transform the construction sector are based on four main strategies, namely:

- **Strategy D1: Enhancing knowledge content** by increasing human capital quality, accelerating capacity and capability building of SMEs and Bumiputera contractors, and reducing the mismatch between labour demand and supply;
- **Strategy D2: Driving productivity** by increasing technology adoption and modernising construction methods;
- **Strategy D3: Fostering sustainable practices** in the construction value chain and developing legislation that supports sustainable construction activities; and
- **Strategy D4: Increasing internationalisation** by building capacity and scale of firms to export and addressing issues through negotiations at government-to-government level as well as utilising the Services Export Fund.

### Strategy D1

## Enhancing knowledge content

The strategies to enhance knowledge content in the construction industry include increasing the quality of human capital, accelerating capacity and capability building of SMEs and Bumiputera contractors, and reducing the mismatch between labour demand and supply. Key initiatives include fostering greater collaboration between Construction Industry Development Board (CIDB), the respective professional boards, and training institutions to develop industry-relevant training modules. A structured skilled trade apprenticeship programme for specific courses such as safety supervisors, crane operators, and rotary drill operators will also be introduced to produce a highly skilled workforce. SME capabilities will be enhanced, particularly Bumiputera contractors, with the support of key partners and the establishment of productivity CoE for sharing of best practices. Regular manpower planning will be undertaken to reduce the mismatch between labour demand and supply. The proportion of skilled foreign labour will be increased by streamlining entry requirements and introducing a new levy system.

## Strategy D2

### Driving productivity

The strategies to increase productivity in the construction sector will focus on increasing technology adoption and modernisation of construction methods as well as reducing dependency on low-skilled labour. The labour productivity of the sector is targeted to increase by about 1.6 times, from RM39,116 per worker in 2015 to RM61,939 per worker by 2020. A number of initiatives will be introduced to drive productivity, including expediting the adoption of the IBS by the industry through the revision of the public procurement policy and Uniform Building By-Laws and improving existing regulations to ease construction-related business processes. This effort, which started with Kuala Lumpur City Hall, will be expanded to other local authorities. The use of ICT will be enhanced by providing a common platform to use BIM on a pay-per-use basis.

## Strategy D3

### Fostering sustainable practices

In line with the growing need for green construction practices, strategies will be geared towards increasing the sustainability of built infrastructure. This will include inculcating green practices in the construction value chain and developing legislation that supports sustainable construction activities. Three initiatives to foster environmental sustainability in the sector are: mandating compliance to sustainable waste management practices through EMS ISO 14001 certification; enhancing the current rating systems for buildings and developing new standards for infrastructure to promote sustainability; and enhancing the awareness and accountability of health, safety and environment (HSE), where HSE good practices will be made obligatory. The minimum level of construction workers' amenities will be raised in the code of practice and further mandated within standard contracts.

## Strategy D4

### Increasing the internationalisation of construction firms

The strategies to increase the internationalisation of firms will focus on building capability and scale of firms by encouraging high-performing SMEs to forge partnerships with larger corporations or form multidisciplinary consortia when bidding for international projects. The public procurement policy will be reviewed to facilitate the formation of such consortia. In addition, firms will be encouraged to leverage FTAs and MRAs, and provide feedback to the Government on challenges faced when venturing abroad to enable issues to be addressed at government-to-government level. The SEF, which covers activities such as tendering, negotiating, and conducting feasibility studies for international projects as well as export promotion activities, will assist construction firms to secure opportunities abroad.



## Focus area E

# Growing dynamic SMEs

The Eleventh Plan will focus on developing resilient and sustainable SMEs to achieve inclusive and balanced growth. The contribution of SMEs across all sectors is targeted to increase to 41% of GDP by 2020.

The development of SMEs will be based on the SME Masterplan, 2012-2020, encompassing six strategies, as follows:

- **Strategy E1: Enhancing productivity through automation and innovation** by promoting increased use of ICT and continuing the Technology Commercialisation Platform (TCP) and Inclusive Innovation programmes;
- **Strategy E2: Strengthening human capital development within SMEs** by reskilling and upskilling workers through industry partnerships;
- **Strategy E3: Enhancing ease of doing business** by simplifying the process of formation and formalising of businesses as well as increasing ease of access to financing;
- **Strategy E4: Increasing demand for SME products and services** by reviewing policies for procurement from SMEs and encouraging SMEs to obtain international standards and certifications to increase exports;
- **Strategy E5: Creating home-grown champions** through the Catalyst Programme to build high performing SMEs into regional and international players; and
- **Strategy E6: Developing SMEs in Sabah and Sarawak** by strengthening infrastructure, encouraging market expansion through e-commerce, reducing the cost of doing business, and increasing outreach of government assistance.

### Strategy E1

## Enhancing productivity through automation and innovation

SMEs will be encouraged to adopt greater automation in production processes and business services. Greater ICT utilisation will be promoted, mainly in business operations, supply chain management, and delivery systems. Two existing high-impact programmes, namely TCP and Inclusive Innovation will be continued. The TCP links innovation initiatives under one platform and aims to remove market and financing barriers to innovation. This end-to-end facilitation enables SMEs to use technology as well as acquire IPs and early stage financing. In this regard, PlatCOM, established in 2014, will continue to implement the TCP to assist SMEs to innovate and commercialise products and services. The Inclusive Innovation programme aims to empower microenterprises in rural areas and the B40 households to leverage innovation. The programme will provide technical, financial, and management support to the target groups and encourage grass-root innovation.

### Strategy E2

## Strengthening human capital development within SMEs

Curriculum for TVET will be strengthened with greater input from the industry to equip workers in SMEs with the right skill sets. In addition, reskilling and upskilling of workers will be intensified to enable them to fill higher-paying jobs. Other measures to strengthen human capital development include ensuring new entrants into the workforce meet industry requirements and creating an entrepreneurial culture in the society.

### Strategy E3

## Enhancing ease of doing business for SMEs

The on-going integration of Malaysia Corporate Identity Number (MyCoID) and Business Licensing Electronic Support System (BLESS) will simplify the process of formation and formalising of businesses. For better access to financing, SMEs are encouraged to engage industry experts when preparing proposals, particularly for technology and innovation activities. The SME Investment Partner (SIP) programme will also introduce new ways of financing for early stage companies by combining equity and loan financing features and providing up to 100% margin of financing. SIP financing will complement the existing venture capital, private equity, and angel financing landscape. SMEs will be encouraged to pool resources, utilise shared services, and purchase inputs, raw materials and services in bulk to reduce cost.

### Strategy E4

## Increasing demand for SME products and services

Government policy on procurement from competitive SMEs will be reviewed to increase the demand for high-quality local products and services. Similarly, government-linked companies (GLCs) and MNCs will be encouraged to procure from local SMEs and invest in supplier development programmes. The SMEs will leverage the consortium approach to take advantage of market opportunities for large orders. SMEs will also be encouraged to comply with international market standards and certifications, such as good manufacturing practices (GMP), eco-labelling, and Hazard Analysis & Critical Control Points (HACCP). To further boost exports, the Going Export (GoEx) Programme will be scaled up to assist SMEs to venture into exports.

### Strategy E5

## Creating home-grown champions

The Catalyst Programme will help to remove barriers and provide assistance to potential SMEs to become home-grown champions who can compete in regional and international markets. The selection of SMEs will be based on transparent and clear criteria to identify the most deserving and highest potential growth SMEs to participate in this programme. Support will be provided in the areas of financing, market access, and human capital development to the selected SMEs.

### Strategy E6

## Developing SMEs in Sabah and Sarawak

Infrastructure development in Sabah and Sarawak will be given priority to enable SMEs to expand their businesses. This includes increased coverage and quality of telecommunications network, supply of electricity and water as well as transportation connectivity in these states. In addition, SMEs will be encouraged to expand their markets by adopting e-commerce, cloud computing, and crowdsourcing for financing. Regulations will be reviewed to reduce the cost of doing business and increase the outreach of government assistance to allow businesses to enable and unleash the potential of SMEs in Sabah and Sarawak.



## Focus area F

# Translating innovation to wealth

Innovation is a game changer in the Eleventh Plan to sustain economic growth and improve the wellbeing of the *rakyat*. Focus will be on strengthening relational capital to foster stronger linkages, collaboration, and trust among stakeholders. This will enable better coordination as well as sharing and testing of ideas to create new value. Efforts to promote innovation will be undertaken at the enterprise and societal levels.

### Enterprise innovation

Efforts to enhance innovation at the enterprise level are based on four strategies, namely:

- **Strategy F1: Strengthening the governance mechanism** by creating a research management agency (RMA) and expanding the 1Dana Portal;
- **Strategy F2: Enhancing demand-driven research** by streamlining public sector funding for research, development, commercialisation and innovation (R&D&C&I);
- **Strategy F3: Strengthening industry-academia collaboration through intermediaries** by encouraging local and international collaborations for technology transfer, including strategic alliances between MNCs and SMEs; and
- **Strategy F4: Promoting private financing of research, development, commercialisation and innovation** by increasing access to private sources of financing, and developing a framework for risk mitigation and management of crowdfunding activities.

With the implementation of these strategies, it is expected that the following outcomes will be achieved, as shown in Exhibit 8-11.

### Strategy F1

## Strengthening the governance mechanism

An existing agency will be restructured to become the RMA to strengthen the institutional mechanism to manage public R&D&C&I initiatives to increase return on investment. It will undertake planning, coordination, and monitoring of public-funded R&D&C&I projects, conduct studies on technology foresight, set national priority areas, and foster interdisciplinary and multi-agency research efforts. In addition, the agency will eliminate overlapping and supply-driven programmes as well as reduce low-impact programmes.

The 1Dana portal, established in 2014, will be expanded to serve as a centralised registry for R&D&C&I-related information to encourage sharing of resources. This will include information on R&D facilities and equipment, expertise in various fields, research output, and registered IPs. Through this portal, owners of R&D capital will be able to maximise the use of their facilities and equipment, and increase their income through the pay-per-use approach. In addition, companies will have access to these resources without incurring large capital outlays and will be able to upgrade, test, and certify their products to meet international standards. Information from other related portals such as krste.my, TECHMart database, and myren.net.my, will be integrated with the 1Dana portal.

Exhibit 8-11

### Achievements and targets for enterprise innovation

Item	2010	2012/13	2020
Ratio of business and government expenditure on R&D	65:35	64:36	70:30
GERD/GDP (%)	1.07	1.13	2.0
Ratio of researchers/10,000 labour force	53.1	57.5	70.0
<b>Commercialisation rate of R&amp;D outputs by:</b>			
▪ IHLs (%)	3.4	2.1 <sup>1</sup>	5.0
▪ MOSTI R&D funds (%)	5.5	3.1 <sup>1</sup>	10.0

<sup>1</sup> Data as of 2013

Source: Malaysia Science and Technology Information Centre and Ministry of Education

## Strategy F2

### Enhancing demand-driven research

Public sector funding for R&D&C&I will be streamlined to ensure better returns. The RMA will act as a clearing house for research proposals to coordinate and reduce duplication of proposals and increase collaboration for implementation. Funding will be channelled into fundamental research for experimental and knowledge creation; applied research to solve national issues and to develop new industries; and demand-driven research to solve problems, improve processes and create new value in industries. In this regard, emphasis will be given to applied and demand-driven research to promote strategic partnerships between companies and researchers, and generate higher return on investment.

## Strategy F3

### Strengthening industry-academia collaboration through intermediaries

Local and international collaboration between Government, industry, and academia will be further encouraged through platforms such as Public Private Research Network (PPRN), Steinbeis, SIRIM-Fraunhofer, and PlaTCOM. These platforms will serve as intermediaries to assist in connecting industries with the relevant research entities to provide solutions on companies' specific problems and support technology adoption. This collaboration, which includes strategic alliances between MNCs and SMEs, will increase commercialisation of research findings and accelerate sharing of knowledge and innovative ideas.

## Strategy F4

### Promoting private financing of research, development, commercialisation and innovation

Access to financing and assistance will be strengthened through continuous engagement with private financial institutions, venture capitalists, and angel investors to widen financial options, reduce

dependency on Government resources and increase the financing of R&D&C&I projects. This includes the expansion of the Technology Park Malaysia Angel Chapter and early stage financing for SMEs through the SIP programme.

In addition, equity crowdfunding will be explored to widen the range of fundraising and investment products, as well as improve market access to a broader spectrum of issuers and investors. Crowdfunding is envisioned to provide financing opportunities for SMEs, start-ups, and innovative businesses seeking liquidity in a more efficient and transparent manner. The enabling environment for innovation will be further strengthened by providing a clear framework for risk mitigation and management.

## Social innovation

Efforts to boost innovation at societal level are based on three strategies, namely:

- **Strategy F5: Strengthening collaboration through a whole-society approach** by encouraging broader participation across Government, residents, non-governmental organisations (NGOs), organisational and community leaders for social services delivery;
- **Strategy F6: Developing a social financing model** to promote investments from the private sector, foundations, and individuals in delivering social services; and
- **Strategy F7: Promoting higher order thinking skills to develop a dynamic society** by scaling up existing programmes such as i-Think and Genovasi, prioritising science and mathematics in education, and expanding career opportunities in science and technology.

## Strategy F5

### Strengthening collaboration through a whole-society approach

In increasing the impact of innovation at societal level, the design and delivery of social services will shift from a top-down, government-centric approach to a whole-society approach. This approach will strengthen relational capital in social services delivery, by encouraging collaboration across Government, residents, NGOs, organisational and community

leaders to optimise utilisation of resources and promote volunteerism. A special task force comprising representatives from relevant ministries, private sector, NGOs and Community-based Organisations (CBOs) will be established to coordinate social services delivery. Through this task force, successful community-based programmes will be replicated and the Government will also be able to assist in improving the professionalism and capabilities of NGOs and CBOs.

## Strategy F6

### Developing a social financing model

In line with the whole-society approach, a social finance model for public-private partnership programmes will be introduced to promote investments from the private sector, foundations, and individuals in delivering social services. Through this model, the 'payment by results' mode will be introduced, where private social impact investors will provide funding for NGOs and CBOs to implement social services and will be reimbursed by the Government when the agreed outcomes are achieved. This model will reduce the burden and risk of social services programmes through the sharing of resources and leveraging civil society's collective skills, enthusiasm, and innovation capacity with the Government as a facilitator. In addition, the involvement of NGOs and CBOs will increase the flexibility in implementation of the programmes.

## Strategy F7

### Promoting higher order thinking skills to develop a dynamic society

Existing HOTS programmes, including i-Think and Genovasi, will be scaled-up to inculcate the current and future workforce with critical thinking, communications, and leadership skills. In addition, science and mathematics in education will also be given priority in line with the Malaysia Education Blueprint, 2013-2025, as these subjects stimulate creativity and innovation. Career opportunities in science and technology will be expanded with the Government's emphasis on knowledge-intensive and high value-added industries.

# Game Changer Translating innovation to wealth

## Why is innovation important for Malaysia?

Innovation is a key driver for economic growth as it raises productivity through new or improved processes, technologies, and business models. In addition, innovation can create additional sources of revenue through differentiated products and services that serve unmet customer needs. As Malaysia continues to move towards a high-value, knowledge-based economy with a strong focus on the services and manufacturing sectors, innovation will be crucial to raise the overall efficiency and thus productivity of each sector.

## What will success look like?

In the enhanced innovation ecosystem, there will be greater collaboration and integration across industry, academia, and communities. Research will be closely aligned with industry demand, and the private sector will be active partners in the R&D&C&I process by contributing funds, expertise, and other resources. Communities will be actively engaged in addressing social issues through a whole-society approach in the provision of social services. There will be a greater return on investment from innovation.

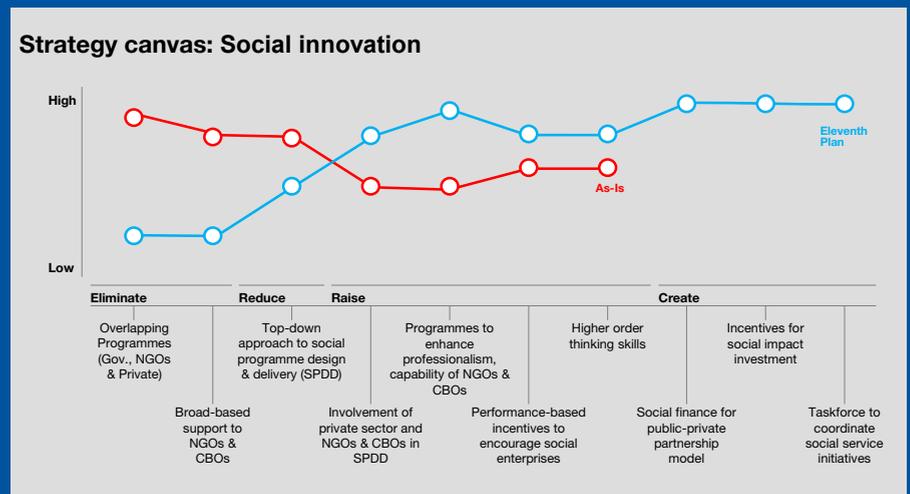
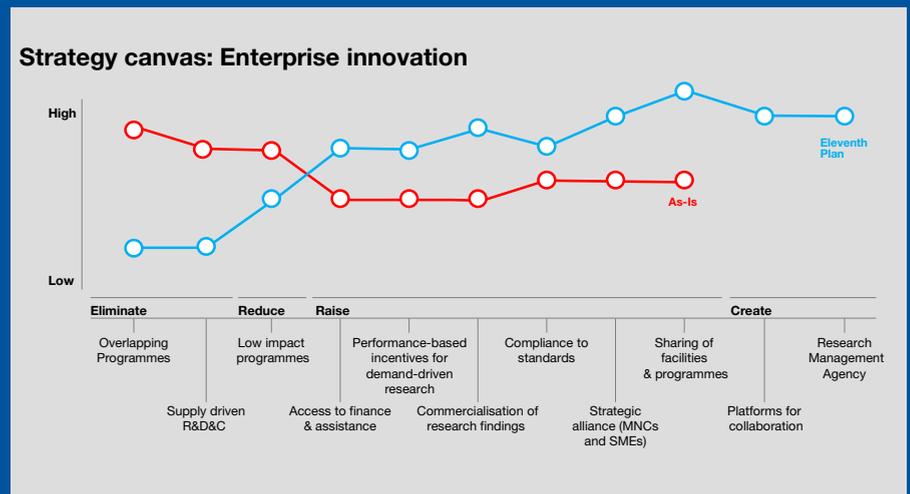
## How will this be achieved?

The Eleventh Plan will focus on strengthening relational capital by improving collaboration among all stakeholders. Innovation will be targeted at both the enterprise and societal levels, instead of previous efforts which focused primarily on national-level initiatives. At the enterprise level, initiatives will enhance demand-driven research, improve collaboration between researchers and industries,

and encourage private investment in R&D&C&I. At the societal level, communities will be encouraged to provide input into social services delivery mechanisms, while a social financing model will be developed to assist communities to fund new initiatives. Collectively, these strategies will produce a set of major shifts as set out in the table below:

The two strategy canvases below highlight areas that should be eliminated, reduced, raised or created for this game changer.

	From	To
Enterprise innovation	<p>Collaboration between industry and research institutes is limited, resulting in R&amp;D output that is not linked to industry demand</p> <hr/> <p>Investments in R&amp;D have low returns and do not drive competitiveness and productivity for industry</p>	<p>Better partnerships between industry and researchers, with industry helping to shape research to ensure relevance to business and contribute ideas, infrastructure, tools, and expertise</p> <hr/> <p>Integrated R&amp;D&amp;C&amp;I initiatives generate high return on investment over time, and stimulate productivity growth</p>
Social innovation	<p>High investments in social services but delivery is ineffective</p> <hr/> <p>Communities remain dependent on the government</p>	<p>Focus on streamlining social services delivery by incorporating feedback from the community in line with the "whole-society approach"</p> <hr/> <p>Delivery supported by a Social Financing Model and outcome-based funding to provide communities with avenue to invest in innovative initiatives</p>





## Focus area G

# Investing in competitive cities and regional economic corridors

Malaysia will invest in developing cities and regional economic corridors that are essential for growth, to maximise impact for local communities, and stimulate broader national development. Two strategies will be delivered to achieve this aspiration:

- **Strategy G1: Developing city competitiveness master plans for four major cities**, namely Kuala Lumpur, Johor Bahru, Kuching, and Kota Kinabalu<sup>3</sup>, along the principles of creating density, expanding transit-oriented development (TOD), strengthening knowledge-based clusters, enhancing liveability, encouraging green-based development and practices, as well as ensuring inclusivity; and
- **Strategy G2: Strengthening corridors to fuel regional development** through a strategic review of corridor development master plans, accelerate investment in regional economic corridors, improve infrastructure, as well as enhance talent and skill development.

<sup>3</sup> A study by the World Bank aimed at unlocking the economic potential of Malaysian cities covering all major conurbations in Malaysia was completed in early 2015. Based on the findings from this study, city-specific competitiveness plans will be developed for four selected cities in the Eleventh Malaysia Plan. These cities were selected based on criteria such as population size, GDP contribution, existing major infrastructure, concentration of higher learning institutions, geographical advantage, and also the principles of inclusivity and fair distribution.

## Game Changer

# Investing in competitive cities

### Why is investing in cities important for Malaysia?

Cities have always played an important role in a nation's growth by providing investment and trade opportunities, as well as improving connectivity with rural or suburban areas. Today, global competition for investment and talent is increasingly between cities, making it imperative to invest in cities in order to attract and retain investment and talent. Kuala Lumpur, the largest city in the nation, is expected to contribute 14.8% of GDP in 2015. As Malaysia aims to re-engineer and spur economic growth, the development and renewal of cities will be crucial to create nodes for strong economic agglomeration.

### What will success look like?

By 2020, four major cities in Malaysia will have undergone a step-change in their economic growth, importance as talent hubs, and liveability. City residents will be able to afford urban housing, have adequate public transportation systems, enjoy green and open spaces, and have access to economic opportunities that will enable them to provide their children with a better future. While these four cities – selected based on their strong fundamentals – will serve as pioneers, the transformation will be expanded to other cities over time. These cities will serve as role models for other cities in the country and region.

### How will this be achieved?

City Competitiveness Master Plans will be developed for the four major cities as a start, based on key principles that increase liveability and stimulate economic growth. These include creating density to increase efficiency; expanding transit-oriented development to enhance mobility; and strengthening knowledge-based clusters to facilitate agglomeration and innovation. These master plans will take into account each city's competitive advantages, and will be formulated by the respective local authorities in consultation with the private sector and civil society. The major shifts that this game-changer will produce are summarised in the following exhibit.

	Economic density	Urban form	Resource usage	Housing	Industry focus	Role of local authorities
<b>From</b>	Economic density in cities is unplanned and organic, resulting in lower productivity	Uncontrolled and automobile-focused sprawl	Resource use not streamlined, leading to high usage of natural resources	New developments are expensive and exclusive with limited affordable options	Current industries are predominantly labour- and space-intensive	Local authorities focused on licensing, enforcement and provision of basic services
<b>To</b>	Increased economic density to enhance productivity	Transit-oriented development to increase use of public transportation and reduce reliance on personal vehicles	Efficient in waste management through guidelines on resource use and effective enforcement	Affordable and quality housing accessible to targeted segments of the society	Growth of knowledge-intensive industries with efficient use of space	Local authorities as strategic drivers of local economic and social development

## Strategy G1

### Developing city competitiveness master plans for four major cities

Increasingly, competition for investment and talent globally is between cities and no longer just at country level. Cities play an important role in a nation's growth – as finance and logistics hubs, as well as magnets for talent seeking new opportunities. Cities across the world generated close to 35% of global GDP in 2011, and are projected to increase this share to 60% by 2025. Great cities also continue to develop into cultural and political epicentres with vibrant social, cultural, and intellectual atmospheres. In 2014, more than half the world's population lives in cities, and this figure is expected to increase to 66% by 2050.

The Government will initially focus on four major cities, namely Kuala Lumpur, Johor Bahru, Kuching, and Kota Kinabalu, given their potential in terms of population size, GDP contribution, existing major infrastructure, concentration of higher learning institutions and geographical advantage.

Specific city competitiveness plans will be drawn up, taking into account the competitive advantages of each city. These plans will be formulated by the respective local authorities in consultation with the private sector, civil society, and other relevant stakeholders.

The development of these cities under the Eleventh Plan will take into account six principles to ensure that they will be economically advanced and be a great place to live in for urban residents of all socio-economic levels. These principles will be used as building blocks for local authorities to develop their city competitiveness plans.

#### Principle 1: Enhancing Economic Density

High economic density in cities is the key to innovation. It brings people and businesses closer and enables information and knowledge sharing, new technological inventions, and new businesses. In addition, economic density increases efficiency and optimises resource use. Existing Malaysian city planning guidelines will be revised progressively to optimise the built environment, enhance connectivity, and integrate infrastructure development.

#### Principle 2: Expanding Transit-oriented Development (TOD)

Transit-oriented Development (TOD) refers to urban development concepts involving the mixed use of residential and commercial development to be pedestrian-friendly, designed with maximum access to public transport. City authorities will adopt TOD as part of the city's competitiveness master plan to provide mobility options to residents, add vibrancy to city spaces, reduce pollution and energy consumption by reducing commute times and increasing the use of public transport or walking, and also revitalise brownfield areas within the city. Efficient land use through TOD will be given priority along established public transport routes.

**Principle 3: Strengthening knowledge-based clusters**

Knowledge-based clusters will be developed to attract investment and talent. Knowledge-based clusters are physical hubs within the city that agglomerate industry-specific firms and talent, particularly for industries such as creative content, ICT, and professional services. Knowledge-intensive investments will be given priority in the selected cities. Institutions of higher learning and research institutes located in the cities will be the catalysts to create knowledge-based clusters.

**Principle 4: Enhancing liveability**

Cities need to be liveable and should create a conducive environment that attracts talent to live, study, work, and play in. Better city planning mechanisms will be developed, including land use zoning that promotes residential, commercial, and basic social amenities in close proximity to increase walkability. Sports, arts, and cultural facilities will be promoted through greater collaboration between related associations, corporate bodies, and NGOs. Emphasis will also be given to the quality, capacity, and reliability of public transport, social amenities, and telecommunications networks. Healthcare facilities and high-quality schools will be planned for and developed accordingly to meet local demand. Vibrant cultural attractions, food and beverage and retail spaces will be developed to create cities that are attractive to global talent.

**Principle 5: Adopting green-based development and practices**

All these cities will place high importance on continuous sustainable growth by enhancing green-based development and optimising low carbon resources. Environment-friendly practices, such as green buildings, green lifestyles, and sustainable consumption and production, will be embedded within the development plans of these cities.

**Principle 6: Ensuring inclusivity**

Inclusivity is the backbone to successful and competitive cities. Inclusiveness will be one of the main thrusts for the four cities, to ensure that communities have ample opportunities to participate in social, political, and economic activities. This will be achieved through greater interaction and social connectedness, paving the way for wealth sharing and improved wellbeing for city dwellers. Focus will also be given to address issues related to homelessness and poverty in cities through collaboration among relevant agencies, corporate bodies, NGOs, and local governments. In addition, good connectivity will be a priority to enable the spillovers of economic gains from these cities to the hinterland and suburban areas.

## Strategy G2 Strengthening corridors to fuel regional development

In the Eleventh Plan, regional economic corridors will continue to be a key enabler to ensure a more balanced geographic development across Malaysia. By the end of the Eleventh Plan, it is targeted that realised investment will reach RM236 billion across all corridors, and 470,000 jobs will be created.

Regional economic corridor development will be enhanced through a strategic review of the corridor development master plans and increased investment, improved infrastructure as well as talent and skill development across the five corridors to ensure that local communities continue to benefit from the investment and resulting economic growth in these areas.

*Exhibit 8-12*

### Key initiatives for regional economic corridors, 2016-2020

#### East Coast Economic Region

- Oil, gas and petrochemical, manufacturing, tourism
- Entrepreneurship and skill training programmes
- Central Spine Road and Kota Bharu-Kuala Krai Highway

#### Sarawak Corridor of Renewable Energy

- Pan-Borneo Highway
- Energy-intensive industries including aluminium, steel and glass
- Growth nodes in Baram and Tunoh for tourism and resource-based industries

#### Sabah Development Corridor

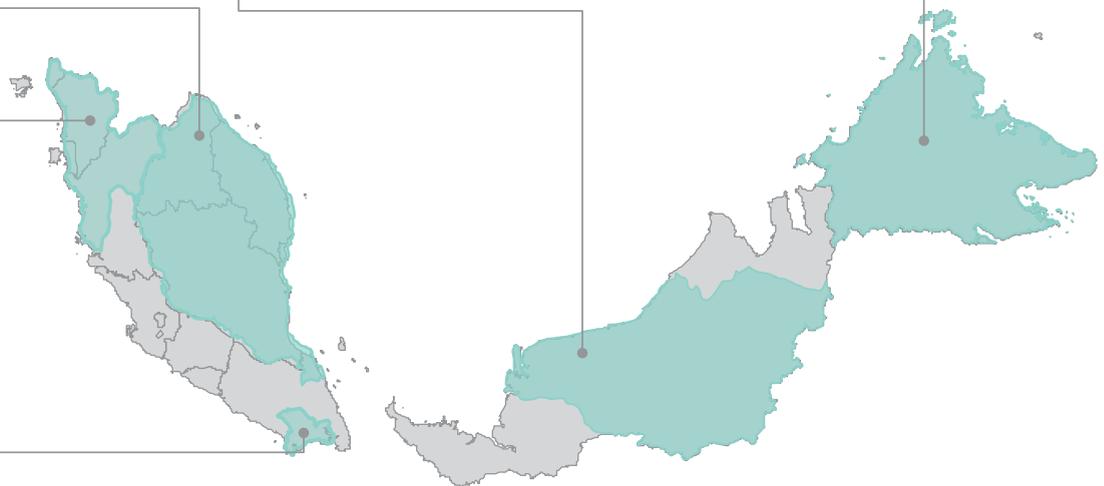
- Key focus areas include tourism and palm oil downstream processing
- Logistics infrastructure development
- Creative content programme

#### Northern Corridor Economic Region

- Agriculture, manufacturing, tourism, logistics and education
- Developing the nutraceutical industry
- Strengthening automotive and aeronautics industries

#### Iskandar Malaysia

- Education and creative cluster
- Tourism and logistics hub
- Manufacturing focus on E&E, food and oleochemicals



# Conclusion

During the Tenth Plan, the economy sustained growth across all sectors amid a challenging external environment. This growth was supported by strong domestic demand and sound economic fundamentals. Policy shifts were undertaken to increase competitiveness including further liberalisation of the services sector, increasing the ease of doing business, enhancing the innovation ecosystem, and strengthening SMEs. The Eleventh Plan emphasises on re-engineering economic growth to enhance socio-economic development. The continued focus on knowledge-intensive sectors and high value-added activities will allow Malaysia to further capture growth opportunities and attract quality investments. Economic growth will be supported by increased investment, improved productivity, a robust regulatory framework, and a larger pool of high-skilled talent. SME development and innovation will spur further development and increase inclusiveness across the various segments of society. Competitive cities and regional economic corridors will be the catalysts for growth, creating vibrant hubs for investment as well as developing talent and knowledge. The successful delivery of the strategies outlined will ensure that Malaysia claims its rightful position among the ranks of other developed countries.



# Transforming public service for productivity

## **Overview**

**Highlights**  
**Tenth Malaysia Plan,**  
**2011 -2015: Achievements**

**Looking back**  
**Tenth Malaysia Plan,**  
**2011-2015: Progress**

**Summary of focus areas**  
**Eleventh Malaysia Plan,**  
**2016-2020**

**Moving forward**  
**Eleventh Malaysia Plan,**  
**2016-2020**

Focus area A: Enhancing  
service delivery with citizens  
at the centre

Focus area B: Rationalising  
public sector institutions  
for greater productivity and  
performance

Focus area C: Strengthening  
talent management for the  
public service of the future

Focus area D: Enhancing  
project management for  
better and faster outcomes

Focus area E: Capitalising on  
local authorities for quality  
services at the local level

## **Conclusion**



# Overview

The challenges facing governments are becoming increasingly more complex due to technological and cultural changes, demographic shifts, and the ever-faster movement of money, goods and people. Governments globally are also encountering greater fiscal constraints, economic uncertainties, declining effectiveness of standard practices and procedures, as well as difficulties in attracting and retaining top talent. Increased affluence and exposure to global services has led to more sophisticated demand and rapidly rising expectations from the *rakyat*, further escalating challenges in public service delivery. An important part of addressing these challenges requires adapting to new models of service delivery that are better suited to today's technologies, norms and citizen needs. These new delivery and service requirements provide a clear opportunity for the Government to reform in order to be more cost-effective and better equipped to meet the demands and expectations of the *rakyat* for 2020 and beyond. This will also require the public sector to be leaner, facilitative, more efficient, more productive, more skilled, more open, more innovative, and less bureaucratic, in order to better deliver for the *rakyat* and for Malaysia.

**During the Tenth Malaysia Plan, 2011-2015,** the Government embarked on efforts to adopt a whole-of-government approach in delivering its services. Efforts were undertaken to transcend organisational boundaries between and within public sector institutions towards achieving shared goals. Integrated solutions were developed to better meet the needs of customers, including citizens and the business community. Improvements were made across public service in areas such as streamlining regulatory processes, reducing business licensing

requirements, removing redundant procedures, as well as expanding digital and online government services for the rakyat. Organisational restructuring, career advancement schemes and value management initiatives were implemented across public sector institutions, resulting in significant cost savings.

**In the Eleventh Malaysia Plan**, 2016-2020, the Government will become more citizen-centric and focus on enhancing the efficiency and productivity of the public service. Service delivery will be further enhanced and executed with speed and accuracy through innovative and creative approaches while upholding integrity. This chapter addresses current challenges and outlines strategies for enhancing public service delivery by improving delivery processes, leveraging data, expanding out reach, and increasing accountability and transparency. It covers the rationalising of public sector institutions, rightsizing of the public service, and introducing exit policy for non-performers, as well as enhancing talent management and competency building. The emphasis is also on improving project management and implementation by public sector institutions, as well as capitalising on local authority with greater empowerment, more stakeholder engagement, and stronger business or community partnerships. The aspiration is to enhance public service in Malaysia with citizens at the centre; with talent that is more skilled; less bureaucratic and hierarchical; less centralised, and with services that are even more accessible, efficient, and effective for the *rakyat*.

# Highlights

## Tenth Malaysia Plan, 2011-2015: Achievements

**77%**

Government services provided online out of 13,483 services

**80%**

Increase in conviction rates for corruption cases from 34% in 2011

**98%**

Government websites and portals rated 3-stars and above in 2014

**3.1 million**

Transactions handled by 1MOCC on public queries, complaints, suggestions and feedback from Nov 2012 to Apr 2015

**15.4 million**

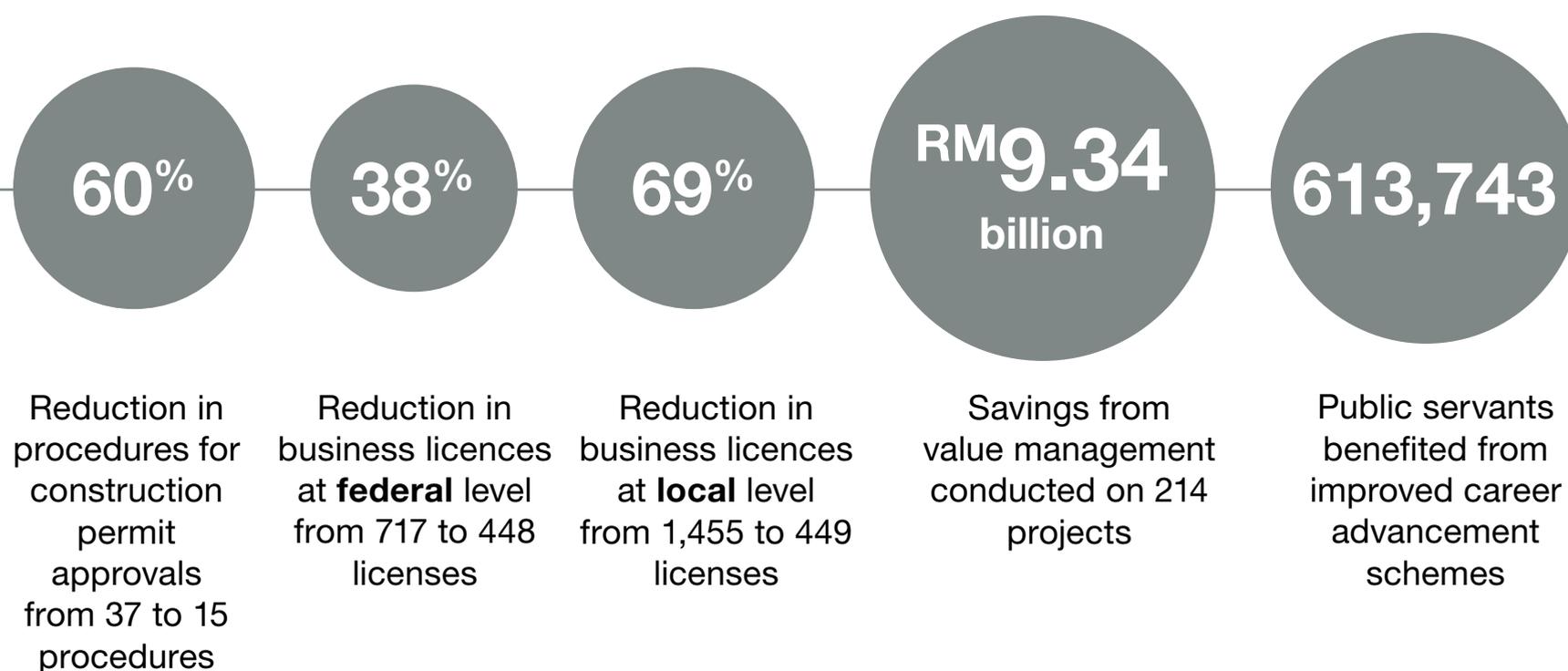
Customers served by UTCs, RTCs and Mobile CTCs in 2014

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**Designing public services around people and business**

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**Accelerating delivery through transparent and accountable management of priority outcomes**



Positioning government to be an effective facilitator of private sector-led growth

Driving productivity to ensure prudent use of public finances

Rationalising and building capacity in government

# Looking Back

## Tenth Malaysia Plan, 2011-2015: Progress

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During the Tenth Plan, the Government embarked on efforts to adopt a whole-of-government approach in delivering services.

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A number of initiatives were undertaken to improve the efficiency of public service delivery. As part of ongoing improvement efforts, Malaysia continued to benchmark and monitor its rankings in various global indices such as the World Competitiveness Yearbook (WCY) by the International Institute for Management Development (IMD), the e-Government Development Index (EGDI) by the United Nations (UN) and the Corruption Perception Index by Transparency International (TI).

In the government efficiency sub-index of the WCY, Malaysia ranked 15 out of 60 countries in 2014 compared to 13 out of 59 countries in 2012. Government efficiency covers public finance, fiscal policy, business legislation, societal framework and institutional framework. Although there were improvements in the areas of public finance from 21 to 20, fiscal policy from 12 to 11 and business legislation from 21 to 19, Malaysia's position dropped in societal framework from 25 to 32 and remained at 13 in institutional framework.

With respect to the availability of online services<sup>1</sup> in the EGDI, Malaysia's position dropped from 20 in 2012 to 31 in 2014 out of 193 countries. This was attributed to the lack of citizen-centric services such as e-participation, government open data and accessibility to online services.

Malaysia was ranked 50 out of 175 countries in 2014 compared with 53 out of 177 countries in the 2013 Corruption Perception Index. The Index measures the perceived levels of public sector corruption based on secondary data from independent institutions. The improvement can be attributed to:

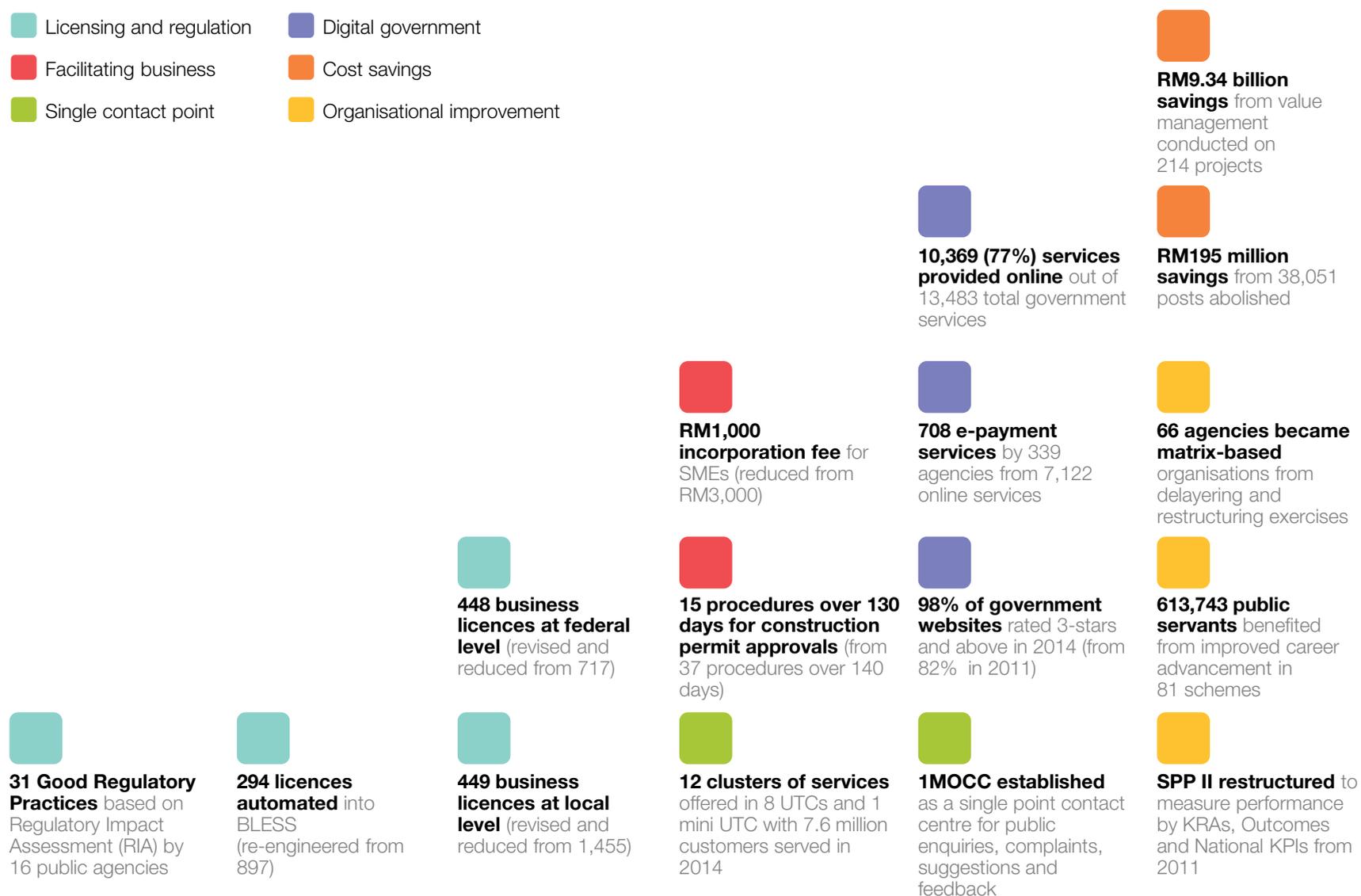
- The establishment of 14 Special Corruption Sessions Courts in 2011 that enabled corruption cases to be resolved within a year of reporting, cleared backlogs and increased the conviction rate from 34% to 80%;
- The signing of the Corporate Integrity Pledge by 512 institutions and corporations between 2011 and 2014;
- The setting up of 746 integrity units in ministries, departments and agencies between 2013 and 2014; and
- The investigation of 24 cases subsequent to the tabling of the Auditor General's Report 2012 and 2013 to the Parliament.

Malaysia's commitment towards improving its public service delivery has resulted in a number of significant achievements as shown in Exhibit 9-1.

<sup>1</sup> Online services measure the use of information and communications technology (ICT) by governments to deliver public services at the national level. This is based on a survey of online presence, which assesses the technical features of national websites as well as the application of e-government policies and strategies.

Exhibit 9-1

## Public service delivery achievements during the Tenth Plan



Source: Malaysian Administrative Modernisation and Management Planning Unit (MAMPU), Public Service Department (PSD), Economic Planning Unit (EPU), Ministry of Finance (MoF), Malaysia Productivity Corporation (MPC)

## Box 9-1

### **1Malaysia One Call Centre (1MOCC)**

1Malaysia One Call Centre (1MOCC) was launched in 2012 as a single point of contact to respond to any public enquiry, complaint, suggestion or feedback. Key features and achievements of 1MOCC include:

- +60 3 8000 8000 as a unique single contact number to connect to all government agencies;
- Multi-channel options to get in touch via phone call, short messaging system (SMS), email, or social media;
- 24/7 operation including Saturdays, Sundays and public holidays;
- No wrong door policy and one-stop service centre philosophy;
- 3.1 million transactions handled from November 2012 to April 2015 of which 98.1% were voice calls;
- Transaction categories comprised 51.4% directory assistance, 47.9% government service enquiries, 0.02% complaints and 0.19% feedback or suggestions; and
- All calls answered, are in less than 20 seconds.

1MOCC provides a seamless approach to customer service, offers low call rates for the public, and enables cost savings through a centralised, efficient and accurate communication system. It has resulted in optimisation of resources and more effective collaboration between ministries and agencies in providing services to the public. 1MOCC received the 2013 Service Innovation Award by FutureGov Asia Pacific, and the 2014 Best Government Centre Award by Avaya Malaysia.

\* \* \*

While the Tenth Plan laid the foundation for a whole-of-government approach, there are significant opportunities for improvement in public service delivery. Transparency and efficiency of public service delivery can be enhanced through more effective engagements with citizens to understand their preferences and needs, as well as through better coordination or data sharing among and within agencies. There is also room for improvement in public perception and public awareness of available services and delivery channels. The public service is still largely multi-layered, with instances of overlapping roles and functions of agencies. Talent management in the public service can be enhanced with more flexible working arrangements, a performance-based reward system as well as more relevant and outcome-focused training opportunities. Project implementation by the public sector can also be improved with greater engagement with relevant stakeholders, stronger monitoring, as well as enhanced planning and execution capabilities.

## Box 9-2

**The Government Transformation Programme (GTP)**

The GTP was conceived and launched in 2010 to deliver 'big fast results' on a nationwide basis for all Malaysians. The programme was aimed at improving the delivery of public services focusing on priorities that matter most to the *rakyat*, such as improving living standards, elevating lives in rural areas through the provision of basic infrastructure and economic opportunities, assuring quality education for children, improving accessibility and connectivity of urban public transport infrastructure, creating a safe environment for all, promoting integrity and ethical practices, as well as establishing greater accountability and transparency in Government institutions.

The GTP introduced a new framework across ministries for managing performance and delivery of public services. It comprises the establishment of clear quantifiable KPIs, disciplined execution according to detailed implementation plans, regular performance reviews of Ministers, as well as corresponding rewards, consequences, and actions. Under the GTP, Cabinet Ministers are assigned Key Performance Indicators (KPIs) against National Key Result Areas (NKRAs) as well as Ministerial Key Result Areas (MKRAs). These KPIs are also cascaded throughout the relevant ministries. The Performance Management and Delivery Unit (PEMANDU) within the Prime Minister's Department oversees and supports the delivery of these KPIs and outcomes.

A key feature of the GTP is the high degree of precision and accountability in implementation. Every implementation stage, initiative, and action plan as well as individual initiative owners or locations can be identified, tracked and monitored. The GTP involved extensive collaboration across ministries, including cross-agency teams of public servants to develop, detail, and deliver solutions to the *rakyat*. The GTP also involved extensive public engagement by ministries and the public service to gather input and feedback. Regular Delivery Task Force (DTF) meetings for each NKRA are convened regularly with relevant ministers and senior public servants to approve plans, monitor progress, and refine implementation strategies as required. The GTP Annual Report is published and serves as a measure of achievements against targets set and promises made to the *rakyat*. Each year, implementing agencies and ministries report on what has been accomplished, along with a transparent account on the challenges faced in meeting these targets.

New ideas, visible improvements and tangible benefits have been delivered to the *rakyat* under the GTP, and these have emerged from the collective efforts, dedication, and creativity of the public service and implementing agencies. Significant progress has been made across all NKRAs during the Tenth Plan period, and in some areas tremendous transformational change has been delivered, such as the elimination of extreme poverty and reduction of the poverty rate to 0.6% under the low-income households NKRA.

**National Key Result Areas (NKRAs) under the GTP**

**Addressing  
the rising  
cost of living**



**Improving  
rural  
development**



**Improving  
urban  
public  
transport**



**Raising living  
standards of  
low-income  
households**



**Assuring  
quality  
education**



**Reducing  
crime**



**Fighting  
corruption**



**Public service  
delivery  
transformation**

# Summary of focus areas

## Eleventh Malaysia Plan, 2016-2020

### Enhancing project management for better and faster outcomes

- Strengthening project planning
- Enhancing implementation efficiency
- Improving monitoring and evaluation focused on outcomes

### Strengthening talent management for the public service of the future

- Appointment on a contractual basis to secure top talent
- Providing flexible work arrangements to maximise productivity
- Empowering Ministries to customise talent management
- Upgrading public sector training to improve relevance and impact

### Capitalising on local authorities for quality services at the local level

- Empowering and improving accountability of local authorities
- Strengthening service delivery by local authorities
- Strengthening collaboration for stimulating local economic development
- Intensifying public engagement and data sharing by local authorities

### Enhancing service delivery with citizens at the centre

- Reducing public service bureaucracy and non-core services
- Improving delivery process to increase responsiveness
- Leveraging data to enhance outcomes and lower costs
- Expanding outreach of services with greater public engagement
- Increasing accountability with greater focus on transparency and outcomes

### Rationalising public sector institutions for greater productivity and performance

- Realigning public sector institutions and reducing overlapping roles
- Rightsizing the public service for better productivity and capabilities
- Introducing exit policy for underperformers



# SELECTED OUTCOMES

Top 10 in the Government Efficiency sub-index of the World Competitiveness Yearbook



Rationalising public sector institutions for greater productivity and performance

Top 15 in the Online Service sub-index of the UN e-Government Development Index



Enhancing service delivery with citizens at the centre

Top 30 in the Corruption Perception Index by Transparency International



Capitalising on local authorities for quality services at the local level

Embedding community expectations into local authority KPIs



Enhancing project management for better and faster outcomes



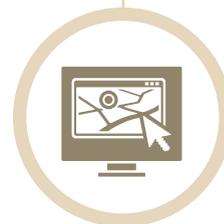
Conducting a comprehensive audit across institutions and agencies

PSC

Establishing a public sector comparator (PSC)



Establishing cloud computing for consolidation and data sharing



U-Customs providing a national single window for trade facilitation



Providing flexible working arrangement schemes

Strengthening talent management for the public service of the future

# Moving forward

## Eleventh Malaysia Plan, 2016-2020

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In the Eleventh Plan, the Government will become more citizen-centric and focus on enhancing productivity and efficiency of the public service.

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The public sector will introduce several creative and innovative approaches to enhance the quality of its delivery system. The focus will be on creating a more citizen-centric government to enhance the efficiency and productivity of the public service. In the pursuit of citizen-centricity, the Government will continue to benchmark its performance internationally. Major targets for the Eleventh Plan period include moving into the top 10 in the Government Efficiency sub-index of the WCY Index, moving into the top 15 in the Online Service sub-index of the UN e-Government Development Index, and moving into the top 30 in the Corruption Perception Index.

In order to achieve these targets, the Government will introduce several transformative changes as shown in Exhibit 9-2. The focus will shift towards more participatory governance by citizens, including better understanding citizen preferences and engaging them as partners in service design and delivery. Bureaucratic procedures that hamper the facilitation of service delivery will be simplified, data fully leveraged, redundancies reduced, and accountability increased. The Government will move beyond primarily playing the role of a service provider, to enhancing its role as a service facilitator. It will also expand partnerships with the private sector and community to improve the delivery

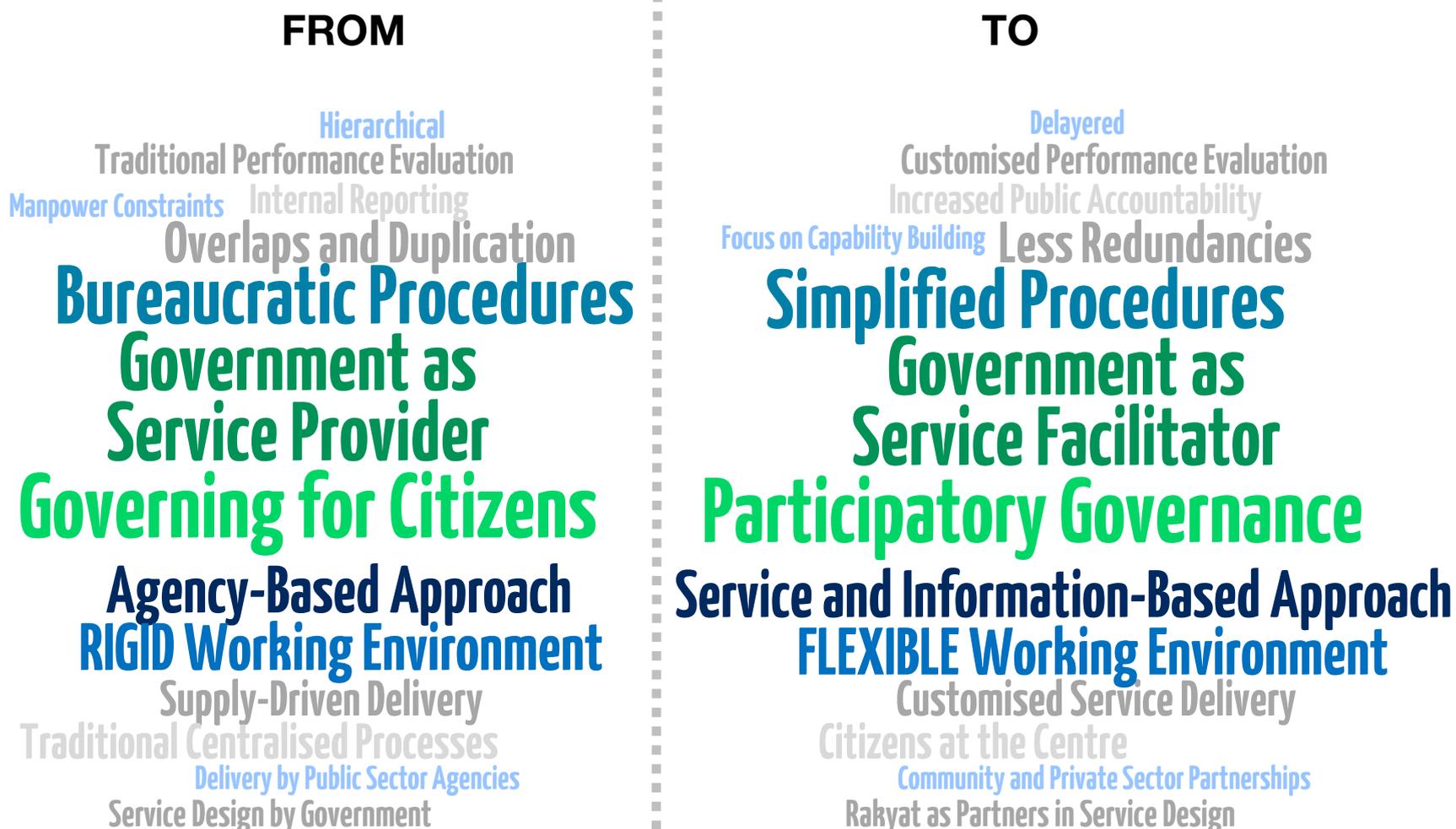
of services. Rigid public sector working environments will change to accommodate more flexible arrangements, with a stronger focus on talent management and capability building. The Government will shift away from the traditional approach of agency-based service delivery towards a whole-of-government approach based on services and information that adopts the perspective of the *rakyat* and puts them at the centre.

Towards this end, there will be five focus areas to transform public services for greater efficiency and productivity under the Eleventh Plan:

- Focus area A: Enhancing service delivery with citizens at the centre;
- Focus area B: Rationalising public sector institutions for greater productivity and performance;
- Focus area C: Strengthening talent management for the public service of the future;
- Focus area D: Enhancing project management for better and faster outcomes; and
- Focus area E: Capitalising on local authorities for quality services at the local level.

Exhibit 9-2

## Transformative changes in the public sector





## Focus area A

# Enhancing service delivery with citizens at the centre

The objective of the Government in enhancing service delivery is to achieve seamless delivery of services, increased customer satisfaction, increased efficiency and reduced cost. In this context, the role of the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) will be strengthened to spearhead the implementation of initiatives to enhance service delivery. MAMPU will ensure effective and efficient delivery of services through the adoption of recognised service delivery standards. The compliance to these standards will be monitored by accredited officers of respective agencies through a self-evaluation process. In addition, MAMPU will be the strategic advisor for the modernisation of government service delivery. The following strategies have been identified to enhance service delivery:

- **Strategy A1: Reducing public service bureaucracy and non-core services.** This will enhance customer satisfaction, reduce costs, create more opportunities for the private sector, and result in a leaner and more efficient government;
- **Strategy A2: Improving delivery process to increase responsiveness.** Key initiatives include improving work processes in the frontline, enhancing trade facilitation mechanisms, adopting green practices, and introducing alternative service delivery mechanisms;
- **Strategy A3: Leveraging data to enhance outcomes and lower costs.** This will require proliferating open data among agencies, encouraging cross-agency data sharing, and leveraging big data analytics (BDA);

- **Strategy A4: Expanding outreach of services with greater public engagement.** This will involve measures to increase and encourage the use of online services and Urban, Rural, and Mobile Community Transformation Centres, as well as to enhance citizen engagement in co-creating service solutions; and
- **Strategy A5: Increasing accountability with greater focus on transparency and outcomes.** Continuous efforts will be undertaken to uphold integrity, eradicate corruption, implement outcome-based budgeting (OBB), and instil noble values among public servants.

## Strategy A1

### Reducing public service bureaucracy and non-core services

#### Eliminating unnecessary bureaucratic processes

Work processes and procedures will be reviewed to identify and eliminate unnecessary bureaucratic processes such as approvals for licences and permits as well as rules and regulations, which are not in line with current needs. This will increase the efficiency of application and approval processes, enhance customer satisfaction, and reduce cost to both the Government and citizens.

#### Reducing government role in non-core services

In an effort to focus on the role of government as facilitator, its role in non-core services will be reduced. The Government will systematically reduce ownership and control of selected non-core services through privatisation and outsourcing. Possible services include operational matters such as processing of payroll, call centres, and asset management. This will improve service quality, allow greater flexibility and reduce costs of implementation, resulting in a leaner government while creating opportunities for businesses.

## Strategy A2

### Improving delivery process to increase responsiveness

#### Improving work processes in the frontline

Work processes and procedures in frontline agencies including local authorities will be reviewed to shorten the time taken for service delivery. This will include the integration of services at the front-end of delivery and consolidation of inter-agency back-end processes.

#### Enhancing trade facilitation mechanisms

The commitment to provide a National Single Window (NSW) for trade facilitation will be realised with the implementation of a ubiquitous customs system, u-Customs. The system will increase the efficiency of customs services and trade facilitation, namely self-declaration, risk assessment, duty payment, and physical release through an online single gateway. This will promote integrated sectoral governance, paperless trading and collaboration among the Royal Malaysian Customs Department, permit issuing agencies, other government agencies and traders. The implementation of u-Customs will also meet the commitment set under the Association of Southeast Asian Nations (ASEAN) Single Window initiative, which will connect and integrate NSWs of ASEAN members.

#### Adopting green practices to encourage green growth

The Government will play a catalytic role to bring transformative changes to spur green growth through the implementation of green procurement. At the same time, efforts will be undertaken to reinforce the enabling environment for green growth by enhancing policy, regulatory, and institutional frameworks; creating sustainable green financing mechanisms; increasing capacity, capability, and skills; improving monitoring and evaluation mechanisms; and enhancing public awareness.

#### Introducing alternative service delivery mechanism

The Government will leverage the capacity and geographical presence of NGOs and other community-based organisations (CBOs) as an alternative service delivery (ASD) mechanism to deliver selected services. ASD will be formalised starting with the delivery of welfare services such as elderly care, disaster aid, and drug addict rehabilitation by NGOs.

## Strategy A3

### Leveraging data to enhance outcomes and lower costs

#### Proliferating open data among agencies

An open environment will allow data to be used for effective analysis as well as interactive feedback between the government and the public. In this regard, MAMPU will spearhead the National Open Data initiative in collaboration with the Multimedia Development Corporation (MDeC) to enable the innovative use of government data. Under this initiative, actions that will be undertaken are as follows:

- Review legislation and guidelines that hinder implementation of open data;
- Establish an open data framework for the public sector across federal, state, and local authorities;
- Develop an open data implementation roadmap as a guideline to agencies; and
- Implement a communication plan to increase awareness among agencies and the public.

#### Encouraging cross-agency data sharing

Following the successful implementation of infrastructure sharing through 1Gov\*Net in the Tenth Plan, the Government will focus on the implementation of data sharing. A cloud-based service will be set up to host public sector data and online applications in the Government Data Centre (GDC). As a single platform, this service can be leveraged to enable data and application sharing with adequate access controls. The GDC will merge Federal agency data centres across states into six different zones covering four in Peninsula and one each in Sabah and Sarawak. The 1Gov\*Net will be expanded to consolidate all Federal agency network infrastructure to further facilitate data sharing across agencies. In addition, state and local authorities will be encouraged to set up a similar network to facilitate data sharing across all levels of government.

## Box 9-3

## Public sector cloud computing infrastructure

The public sector cloud computing infrastructure is a dedicated cloud to host government applications and data. This involves deploying groups of remote servers and software networks that allow centralised data storage and online access to computer services or resources. The cloud will be a one-stop centre for public sector agencies to have access to various cloud services namely, Software as a Service, Platform as a Service, and Infrastructure as a Service. Among the advantages of cloud implementation are:

- **Cost reduction** – resources such as software, storage and processing power are pooled and shared to serve multiple agencies;
- **Strengthened security** – incorporate data security with adequate access controls to manage usage of sensitive data;
- **Universal access** – cloud mobility enabling access from any place at any time;
- **Faster deployment** – enable agencies to run their applications faster as a result of improved manageability and lower maintenance requirements; and
- **Ease of collaboration** – allow real time collaboration where documents are stored in a central location and can be accessed by multiple users.

## Leveraging big data analytics

MAMPU will spearhead the initiative to leverage BDA in collaboration with MDeC. The BDA Blueprint for the public sector will be formulated, which will encompass governance mechanisms, communication plan and capability building. The implementation of BDA will utilise existing government infrastructure such as 1Gov\*Net and GDC. The usage of BDA will facilitate decision-making based on comprehensive data made available from within and outside of the agency.

## Strategy A4

### Expanding outreach of services with greater public engagement

#### Increasing usage of online services

The Government will continue to expand and strengthen its online service offerings for greater accessibility and convenience for the rakyat. Measures that will be undertaken to increase and encourage the use of online services are:

- Deploying multiple channels of delivery focusing on mobile platforms;
- Strengthening cyber security protection in critical online transactions;
- Offering more services via the single sign-on; and
- Shifting from agency-based to service- and information-based approach.

#### Maximising the usage of Urban Transformation Centres, Rural Transformation Centres and Mobile Community Transformation Centres

Urban Transformation Centres (UTCs) and Rural Transformation Centres (UTCs) will be utilised optimally, among others, to conduct training for entrepreneurs and implement micro-sourcing programmes for the community. Services from Mobile Community Transformation Centres (Mobile CTCs) will be expanded and strengthened by consolidating different services into one facility. This will allow frontline government services, which include MyKad registration, driving licence renewal, and business advisory services, to be made available to the underserved. A study will be conducted to evaluate the impact of the UTCs, RTCs and Mobile CTCs to the community.

### Enhancing citizen engagement in identification of issues and creative solutions

A community engagement framework will be established to enable the co-creation<sup>2</sup> of public sector solutions where frontline agencies gather feedback through crowdsourcing<sup>3</sup> platforms. This is similar to the Guideline on Public Consultation Procedures introduced by the Government in October 2014 as a reference for ministries and agencies. The framework will provide opportunities, including online, for the public to contribute to the process of identifying issues and creative solutions to improve services.

## Strategy A5

### Increasing accountability with greater focus on transparency and outcomes

#### Upholding integrity at all levels

Continuous efforts to uphold integrity and eradicate corruption will be undertaken. These efforts will enhance public perception with respect to the integrity of the public sector as well as improve Malaysia's position in international rankings. Among the efforts are:

- Publishing government procurements through MyProcurement portal to enhance transparency;
- Reviewing the effectiveness of public commissions;
- Reviewing the Malaysian Anti-Corruption Commission Act to further boost efforts to eradicate corruption;
- Ensuring the participation of Certified Integrity Officers (CeIO) throughout the whole process of project implementation;
- Focusing on further implementation of the Corporate Integrity Pledge (CIP) with the private sector in executing corruption prevention initiatives; and
- Forming strategic partnerships with NGOs, political associations and CBOs for collective engagement on initiatives undertaken and act as agents of change.

### Expanding the sharing of resources

The revised standard guidelines for office space will be implemented to optimise space management. In addition, sharing among agencies in common locations in terms of asset deployment including office inventory, facilities and vehicles will be further intensified. Guidelines for the sharing of resources will be developed by the Ministry of Finance.

### Implementing outcome-based budgeting

Outcome-based budgeting (OBB), which integrates both development and operating budgets, will be implemented to ensure Government expenditure is aligned with national priorities and benefits the target groups. Performance of programmes at the national and ministry levels will be measured based on quantity, quality, cost and timeliness. Ministries will be held accountable for the performance of programme outcomes, which will form part of their key performance indicators (KPIs). Capacity building will be enhanced for the effective implementation the OBB.

### Instilling noble values among public servants

With the demand for greater transparency and effectiveness in the delivery of public sector programmes, the public service will intensify efforts to instil noble values among public servants. This will be championed by the Public Service Department (PSD) and supported by all ministries and agencies. The public sector will continue to adopt positive values and attitudes including patriotism, impartiality, discipline, dedication, diligence, prudence, trustworthiness, civic-consciousness, and tolerance. These positive values and attitudes will complement the overall efforts towards enhancing the image of and trust in the public service.

<sup>2</sup> Co-creation means working with end users of products and services to produce a mutually valued outcome.

<sup>3</sup> Crowdsourcing is the process of obtaining needed services, ideas, or content by soliciting contributions from the public, especially from the online community, rather than from employees or stakeholders.



## Focus area B

# Rationalising public sector institutions for greater productivity and performance

The Eleventh Plan will prioritise on optimising the Government's structure, scale, and operating model to enhance the focus, flexibility, and ultimately the performance of public sector institutions. Efforts to transform the public service will be continued through the rationalisation of government institutions. This will be implemented through the following strategies:

- **Strategy B1: Realigning public sector institutions and reducing overlapping roles** to streamline functions, manpower and funding to better align with changes in the economic structure;
- **Strategy B2: Rightsizing the public service for better productivity and capabilities** through restructuring and delayering, multi-skilling in the public service, extending self-regulation, as well as introducing new practices and productivity-based KPIs; and
- **Strategy B3: Introducing exit policy for underperformers** to create greater accountability and improve overall performance within the public service.

## Strategy B1

### Realigning public sector institutions and reducing overlapping roles

Public sector institutions will be rationalised in line with changes in the structure of the economy and national demographics. Resources including manpower and funding will be streamlined along these priorities. Overlapping roles and responsibilities among ministries, agencies, and commissions will also be rationalised to improve efficiency and productivity of the public sector. This includes reviewing the roles of attachés, diplomats, and delegations that represent different ministries at the Malaysian embassies and high commissions. Existing institutions will be strengthened to address functional gaps without creating new agencies. These initiatives will ultimately result in a public sector that is more agile and lean. In this regard, a special task force led by the Chief Secretary to the Government will be set up to conduct a comprehensive audit and review across public sector institutions and agencies.

## Strategy B2

### Rightsizing the public service for better productivity and capabilities

#### Restructuring of the public service

The public service will be restructured with a focus on better capabilities and greater productivity. Efforts will be undertaken to reduce the hierarchical layers in the managerial and professional group while increasing the proportion of middle management to facilitate matrix-based tasks. At the same time, frontline agencies will be empowered through greater authority.

#### Implementing multi-skilling in the public service

The Government will undertake and intensify the upskilling and reskilling of the support group in the public service to become multi-skilled. This will enhance career development opportunities by enabling the support group to move up to managerial and professional positions or undertake multi-tasking functions.

#### Extending self-regulation in specific areas

The Eleventh Plan focuses on the role of the Government as a facilitator and catalyst for development. In line with this, the Government will progressively move towards self-regulation or co-regulation where it is suitable, such as in telecommunications, education, and consumer-related areas. This will result in an increase in productivity, better outcomes for the rakyat, and a reduction in the cost of administration.

### Integrating productivity improvements into public service

The Eleventh Plan emphasises efficiency and productivity improvements in both the public and private sectors. Similar to the private sector, public sector institutions will leverage guidelines and practices from the Malaysia Productivity Corporation (MPC) on productivity enhancements, and yardsticks for productivity measurement will be embedded into the KPIs of ministries and agencies.

## Strategy B3

### Introducing exit policy for underperformers

In line with the objective of achieving a high performing and dynamic public sector that will support the national agenda, an exit policy for underperformers will be introduced. Public servants, who do not meet stipulated performance criteria will undergo improvement programmes and will be given a specific time period to improve their performance, failing which, their service will be terminated. Measures will be put in place to ensure fair implementation of this policy.



## Focus area C

# Strengthening talent management for the public service of the future

Talent within the public sector are the most significant resource for the public service. The public sector will strengthen its talent management, capabilities, and leadership to enable quality improvement in service delivery. Strategies to strengthen talent management in the public sector will include:

- **Strategy C1: Appointment on a contractual basis to secure top talent** in critical fields with flexible pay structures and outcome-based KPIs;
- **Strategy C2: Providing flexible work arrangements to maximise productivity**, as well as retain talent, and provide work-life balance;
- **Strategy C3: Empowering ministries to customise talent management** through a bottom-up approach in talent development and performance evaluation; and
- **Strategy C4: Upgrading public sector training to improve relevance and impact** with a focus on leadership skills and functional specialisation.

### Strategy C1

## Appointment on a contractual basis to secure top talent

Appointments to appropriate positions will be on a contractual basis to attract and retain talent in specialised and critical fields. The appointment will be based on a flexible pay structure tied to outcome-based KPIs. This will create a pool of talent in the public sector with both private and public sector exposure for a more effective, innovative and proactive public service.

### Strategy C2

## Providing flexible work arrangements to maximise productivity

The Government will improve existing work arrangements for better work-life balance by providing greater flexibility in the public service. Measures that will be introduced are:

- Flexible work arrangement schemes, which will allow working from home, flexible working time and compressed working hours<sup>4</sup>. The implementation will be on a selective basis where tasks will be accomplished based on defined deliverables within a fixed time frame; and
- Part-time worker scheme that will retain expertise and minimise new recruitment. This scheme is intended for public service employees who wish to work for shorter time periods and be paid proportionately.

<sup>4</sup> Compressed working hours will allow public servants to work a 40-hour work week in less than five work days.

### Strategy C3

## Empowering ministries to customise talent management

### Enhancing talent development programmes

A bottom-up approach will be institutionalised to reduce centralised management of talent development programmes. Ministries and agencies will be empowered to plan and determine talent development programmes based on needs and priorities. The PSD will provide guidelines to ensure alignment of these programmes with national priorities.

### Customising performance evaluation

Public sector institutions will be empowered to customise performance evaluation based on the roles and functions of the agency, in addition to the standard appraisal system. This will enable public service employees to be evaluated based on their agency's roles and functions. The current system will be improved to enable better rewards for high performers through a decentralised performance-based incentive approach.

### Strategy C4

## Upgrading public sector training to improve relevance and impact

### Enhancing leadership development in the public sector to focus on impact

The capacity and capabilities of the National Institute of Public Administration (INTAN) and Razak School of Government (RSOG) in developing public sector leaders will be enhanced. INTAN will offer courses in areas related to public sector administration to build relevant leadership skills and stronger functional capabilities to meet the changing requirements of public service. In this respect, INTAN will review the existing curriculum to improve training effectiveness for better outcomes. INTAN and RSOG will strengthen collaboration to complement each other in delivering public sector training.

### Revising public sector training policies for greater relevance

Public sector training policies will be reviewed and revised to focus on outcomes that will benefit both the individual and their organisation. In this respect, more capability building will also be provided to encourage multi-skilling, as well as more targeted training opportunities in new and specialised fields relevant for the new economy, such as data science, forensic economics and accounting, green auditing, and intellectual property evaluation.

### Streamlining public sector training for greater specialisation

There are currently about 100 public training institutes for the public service operated by different ministries and agencies. The role of public sector training institutes will be streamlined to focus on areas of specialisation and to better support relevant functional roles.



## Focus area D

# Enhancing project management for better and faster outcomes

The development and institutionalising of best-in-class project execution capabilities within the Government is at the heart of public service transformation for greater productivity and efficiency. The Eleventh Plan will place emphasis on efficient and effective project management and implementation to ensure the completion of projects within the stipulated time, quality and cost requirements. This will require that projects implemented adhere to three principles: high impact to the rakyat, low cost to the Government, and rapid execution. Improvements in project management and implementation will be undertaken at all stages of planning, implementation, monitoring, and evaluation. The following strategies will help achieve these objectives:

- **Strategy D1: Strengthening project planning** at all levels and stages, including stakeholder engagement, resource allocation and project selection;
- **Strategy D2: Enhancing implementation efficiency** through pre-approved plans (PAP) for construction, competent contractors and consultants, as well as effective project management; and
- **Strategy D3: Improving monitoring and evaluation focused on outcomes** through cascading an outcome-based approach (OBA) in results monitoring and resource allocation.

## Strategy D1

### Strengthening project planning

#### Enhancing stakeholder engagement

Stakeholder engagement is crucial for the successful implementation of projects and will be made a prerequisite for project approval. Ministries and agencies will widen engagement with relevant

stakeholders to ensure wider support and buy-in for projects. To expedite implementation of projects, the requirements and priorities of stakeholders will be included in the design and planning of projects.

#### Enhancing resource allocation

The rolling plan approach, which was introduced in the previous Plan will be enhanced through the introduction of a shadow ceiling. The shadow ceiling is the total expected expenditure for the implementation of projects for each ministry in each rolling plan. This will enable the Government to make commitments within its financial capacity and allow for greater flexibility in the prioritisation of projects in response to changes in policy directions.

#### Enhancing project selection

The introduction of the Logical Framework Approach (LFA) and value management (VM) for projects in the previous Plan, improved project selection and ensured value for money through optimal project design. During the Eleventh Plan, the Creativity Index (CI) will be introduced to assist ministries and agencies to assess the potential impact and prioritise proposed projects. The CI is a ratio of project impact over both developmental and operational costs for a specific period. The project impact comprising economic and social, including environmental benefits, will be calculated in monetary terms. These benefits will comprise value delivered to direct and indirect beneficiaries. In addition, steps will be undertaken to establish a public sector comparator (PSC) as part of the project evaluation and selection process. The PSC aims to provide a reference point for comparing the cost of public sector projects with private sector projects of similar designs and functions to ensure value for money.

The Project Brief in the Project Monitoring System (SPPII) will be enhanced to include comprehensive data for effective project analysis,

selection, planning, and design. With this comprehensive data, the VM process can be conducted in the same year the project approval is given, in order to expedite project implementation.

## Strategy D2

### Enhancing implementation efficiency

#### Increasing the use of pre-approved plans for construction of government buildings

The PAP, which consist of a complete set of architectural, structural, mechanical, and electrical design drawings, but without the site-related design components like earthworks and foundations, will be used to expedite the construction of Government buildings and facilities such as schools, health clinics, fire stations, police stations, government offices, and quarters. The Public Works Department will design the PAP with elements of green design to ensure efficient energy use. Ministries and agencies implementing building projects will only need to select the available PAP designs that best suit their project requirements. As more options are included in the list of PAP designs, the need for customised building designs will be reduced. The use of PAP will also reduce the time taken for the planning and design process from 15 to 9 months, thus expediting overall project implementation.

#### Ensuring appointment of competent contractors and consultants

The Government will encourage contractors undertaking projects to undergo the Construction Industry Development Board's training and development programmes to enhance their competency and capability. In addition, a rating programme to assess the competency and capacity of contractors implementing Government projects will be introduced. Contractors with good ratings will be given additional merit in the evaluation for selection of contractors to implement Government projects. The emphasis is on ensuring only capable and competent contractors and consultants will be appointed. These efforts will improve project completion within time, quality and cost requirements.

### Improving project management for public infrastructure and services

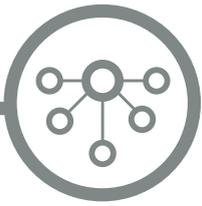
Project management will be improved by:

- Reviewing work processes and systems as well as upgrading technical skills and competencies of personnel in technical agencies to enhance their roles in the management and implementation of government projects;
- Establishing dedicated project teams in ministries and agencies to enhance supervision and monitoring of projects to ensure timely completion;
- Enhancing the capabilities of the policy planning and development divisions in ministries and agencies to ensure cost effective and timely implementation of projects;
- Creating a pool of project management personnel through the Certificate in Integrated Public Project Management training programme conducted by INTAN;
- Strengthening the centralised coordination and implementation of programmes and projects to ensure that citizens benefit from implementation outputs and outcomes; and
- Sharing of resources between ministries and agencies to reduce project cost.

## Strategy D3

### Improving monitoring and evaluation focused on outcomes

The monitoring and evaluation process will be strengthened through the OBA. This approach emphasises the achievement of outcomes or results rather than outputs, and will be continued and enhanced. The OBA allows for more effective resource management and greater value-for-money from public investment. The National Results Framework encompassing strategies, performance indicators, and targets will be cascaded to ministries and agencies to ensure every ministry and agency is aligned to deliver national outcomes.



## Focus area E

# Capitalising on local authorities for quality services at the local level

The Eleventh Plan aims to improve the delivery of services at the local level by building the capacity and capabilities of the local authorities. The efficiency of service delivery by local authorities will be improved through the following strategies:

- **Strategy E1: Empowering and improving accountability of local authorities** through better assessment of their capabilities and expectations of the local communities;
- **Strategy E2: Strengthening service delivery by local authorities** through greater collaboration with federal and state governments, and streamlining of rules and processes that can enhance local authority responsiveness;
- **Strategy E3: Strengthening collaboration for stimulating local economic development** by engaging the private sector and improving infrastructure and the business environment; and
- **Strategy E4: Intensifying public engagement and data sharing by local authorities**, leveraging new technologies for greater feedback and dissemination of information.

### Strategy E1

## Empowering and improving accountability of local authorities

### Strengthening enforcement at the local level

Enforcement will be strengthened through greater collaboration with relevant agencies such as the police, immigration and district offices to ensure compliance to regulations. Efficiency of revenue collection by local authorities will also be enhanced. In addition, by-laws, guidelines, and standard operating procedures will be reviewed to streamline enforcement activities.

### Expanding outreach to better understand community expectations

An independent survey will be conducted by the Local Government Department (JKT) to understand community expectations, which will be translated into KPIs to measure the performance of local authorities. In addition, various communication channels will be deployed to inform the community of the KPIs to enable better understanding and encourage their active participation.

### Empowering local authorities based on readiness levels

Local authorities will be ranked according to their capability and capacity in delivering services. This will allow an objective assessment of their readiness to implement functions that can be devolved from federal and state governments.

## Strategy E2

### Strengthening service delivery by local authorities

#### Ensuring alignment of national development projects with local interests

Collaboration between local authorities, federal and state governments, and the private sector will be strengthened to ensure that public sector development projects are in accordance with the requirements of the local community and national interests. Focus will be given to ensure an attractive and vibrant living environment, efficient public transport, quality and affordable housing, as well as efficient public utility services.

#### Improving accessibility and responsiveness of local authority services

Efforts will be continued to enhance the delivery of local authority services through improvement in work systems and processes. Complex and ineffective regulations will be simplified and streamlined while unnecessary procedures will be eliminated. This will improve the efficiency of local authority services by reducing response time and increasing public satisfaction. Accessibility to local authority services will be widened through digital channels including websites and mobile-based services.

## Strategy E3

### Strengthening collaboration for stimulating local economic development

#### Facilitating private sector participation and investment in the local economy

Local authorities and the private sector will collaborate closely together to develop potential economic activities. In this regard, local authorities will continue to improve infrastructure and utilities as well as other support services. This will facilitate investment and increase private sector participation in the development of the local authority areas.

#### Developing a conducive environment for local businesses

Local authorities will develop the local economy, by providing a conducive environment including better infrastructure and commercial facilities. In this regard, local authorities will relocate and reorganise informal businesses<sup>5</sup> into designated areas that are clean, accessible, and customer-friendly. The local authorities will take into account the requirements and financial capabilities of the business owners to facilitate the uptake of the relocation programmes.

<sup>5</sup> National Urbanisation Policy definition: Informal businesses are small businesses being implemented as five-footway stalls or night markets. It also refers to the manufacturing sector or small scale productions that do not involve the use of permanent or planned buildings.

## **Strategy E4**

### **Intensifying public engagement and data sharing by local authorities**

#### **Widening engagement with community and non-governmental organisations**

Engagement with the community and NGOs will be widened to gain feedback on existing and proposed services by local authorities. Conventional and digital platforms will be utilised to provide multiple channels for greater community engagement. This will enable local authorities to better understand the needs and priorities of citizens, and design services accordingly. The Residents Representative Committee will assist the local authorities in dealing with wellbeing issues.

#### **Enhancing compliance to Environmental Impact Assessment and Social Impact Assessment**

Local authorities will ensure stricter compliance to the requirements of the Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) for relevant projects. SIA will be undertaken through greater engagement with relevant NGOs and the public. In addition, local authorities will disseminate information with regard to conditions for development. Enforcement will be undertaken to ensure compliance to EIA and SIA requirements during project implementation.

#### **Improving data collection and sharing by local authorities**

The JKT will introduce a system to enable local authorities to collect data that is required for planning and decision-making. This will include data on roads, drains, public amenities, education and health facilities, housing, as well as business premises. In addition, socio-economic data such as local demographics, health profile, and local economic activities will also be collected. The data will be made available to the public in accordance with current legislation.

# Conclusion

The Government needs to deliver against rising public expectations and respond to population dynamics and technology trends. In the Eleventh Plan, the government will become more citizen-centric and focus on enhancing productivity of the public service through a whole-of-government approach supported by a lean and agile structure, competent talent, effective delivery of projects, and efficient services of the local authority. The emphasis will be on enhancing the role of the Government as a facilitator and catalyst for development. Ministries and agencies will adapt to new models of service delivery better suited to today's technologies, norms, and expectations of the *rakyat*. Beyond strengthening traditional values such as integrity, impartiality, and trustworthiness, the public service will demonstrate that it can be flexible, innovative, and able to change further and faster. Public service will be comprehensively transformed, rigid structures and redundant processes will be removed; innovation and openness will be encouraged; and responsiveness and pace of delivery will be accelerated. The Eleventh Plan will help to ensure that the public service is fit for purpose, fit for the *rakyat*, and fit for the future. This will accelerate Malaysia's transformation and transition to an advanced economy and inclusive nation.



# Malaysia beyond 2020

**Overview**

**Profile of Malaysia  
post-2020**

**Aspirations for Malaysia  
post-2020**

People

Economy

Environment

**Conclusion**

# 10

# Overview

A vision for Malaysia beyond 2020 is imperative to continue the momentum of growth and ensure that onward path to development is unfettered. In charting new frontiers of development, Malaysia must remain progressive and inclusive in line with the aspirations of the *rakyat*. The Eleventh Malaysia Plan, 2016-2020, is intended as a launchpad and foundation for the next stage of Malaysia's journey.

The post-2020 era will present new opportunities and challenges for Malaysia. Global demographics are shifting with rising life expectancy and dropping fertility rates below replacement rates in developed countries. The scale and pace of urbanisation and industrialisation, especially in emerging economies, is unprecedented. Scarcity of resources such as water, energy, and land will become more prevalent, posing greater challenges to development. The speed and magnitude of advancements in science, technology, and innovation is accelerating. This will create new jobs which require a combination of complex technical, analytical, and interactive skills, while routine and manual tasks will

increasingly be done by intelligent machines. The world is woven together in a web of connectivity that was unimaginable a decade ago. Customers and suppliers will come from non-traditional markets while a new breed of competitors will emerge as technology removes many existing barriers to entry. The economic power shift to Asia will lead to Asian countries assuming an ever more important role in the world economy.

This chapter outlines national aspirations post-2020, which represent the voices of the *rakyat* drawn from interviews, discussions, and a survey from various groups of Malaysians, particularly from the young. There is one clear message resonating from these voices – Malaysia is to become a truly advanced nation in economic, social, and environmental terms. The deliberation on national aspirations has taken into consideration domestic and international trends on economic and social development.

# Profile of Malaysia post-2020



The population is estimated to reach 32.4 million in 2020 and 36 million by 2030. In terms of age demographics, less than 23% of the population will be 14 and below, 68% between 15 and 64, and about 9% aged 65 and above in 2030.



The urbanisation rate will reach 75% in 2020 and is expected to increase to 80% by 2030. The main conurbations of Greater Klang Valley, Georgetown, Johor Bahru, Kuantan, Kuching, and Kota Kinabalu will continue to be the nexus of economic and social activities, housing major global companies and talent. The large middle-class population in these areas will be a huge consumer market for local and global products and services. Demand for modern, integrated infrastructure, efficient urban services, and green spaces will increase.



All levels of society will enjoy a comfortable lifestyle with quality healthcare; secure, safe, and green environment; good housing and modern amenities; recreation and leisure. The gap between the top 20%, the middle 40%, and bottom 40% household income groups will have narrowed considerably while income distribution will improve, as indicated by a lower Gini coefficient.

## Population

2020

**32.4**  
million

2030

**36**  
million

## Urbanisation rate

**75%**

**80%**

## Gini coefficient

**0.385**





In terms of the economy, the size of the gross domestic product (GDP) is expected to increase in 2030 to RM2.6 trillion from RM1.4 trillion in 2020. In 2030, the GDP per capita is projected to increase more than double to RM117,260 compared with RM54,890 in 2020. The economy will be dominated by knowledge-intensive and high value added activities, generating high-income jobs. In 2030, more than 40% of total employment will be comprised of skilled workers compared with approximately 35% in 2020.

Malaysia will remain an open economy, regionally and globally integrated post-2020. Global growth is expected to be driven by the emerging economies of Asia, while the centre of trade will shift towards the East. As the People's Republic of China and India prosper further, coupled with their large and growing affluent middle class, they will become major markets for Malaysian goods and services. ASEAN is expected to be the third pillar of Asia and the linchpin for Malaysian businesses to go global. Improved connectivity with ASEAN members will boost investment, trade, and tourism as well as cross-border movement of talent. In addition, rapid economic growth in ASEAN, particularly Cambodia, Indonesia, and Vietnam, and countries in both North and South Africa, will accelerate demand for infrastructure such as power plants, dams, ports, airports, and roads, offering new opportunities for Malaysian businesses to partake in infrastructure and new city development projects.

### Gross domestic product (GDP)

**RM1.4**  
trillion

**RM2.6**  
trillion

### GDP per capita

**RM54,890**

**RM117,260**

### World trade<sup>1</sup>

**US\$26**  
trillion

**US\$44**  
trillion

<sup>1</sup> World trade forecast from IHS Economics Quarterly (updated February 2015)

# Aspirations for Malaysia post-2020

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We stand,  
we think, and we  
act as Malaysians.

---

The views of Malaysians from diverse groups and different segments of society, predominantly the young, were gathered through interviews, focus groups, and an online survey. They were asked to share their expectations and aspirations for the nation post-2020. Their input is summarised in Exhibit 10-1.

## **Voices of the *rakyat***

The post-2020 aspirations outlined in the following section reflect the hopes and wishes of Malaysians, clustered into three dimensions – **people, economy, and environment**. These three dimensions are also reflected in the six thrusts of the Eleventh Plan, which focuses on people via developing human capital, inclusiveness, and wellbeing; on the economy via re-engineering growth; and on the environment via green growth and sustainable development.

## **One nation, one people, and one aspiration**

We come from different backgrounds and different ethnicities, and speak many languages. But we speak with one voice – that of wanting a better future for our next generation. It is the voice of hope, of solidarity. It is the voice that says we are one.

Exhibit 10-1  
Malaysia beyond 2020



The word cloud above represents the aspirations of the *rakyat* for Malaysia post-2020 against a backdrop of global trends that will be shaping the future. The aspirations are grouped into 3 dimensions – **people**, **economy**, and **environment**.

# People

The future of Malaysia depends on Malaysians being united in diversity and sharing a common set of values and aspirations. Malaysians must have a diverse range of relevant skills. These will ensure that the nation successfully makes the next leap towards becoming truly advanced - economically, socially, and environmentally.

## VALUE SYSTEM

### Unshakeable national identity

There is a greater sense of what being a Malaysian truly is. We are optimistic and resilient in the face of challenges. We stand, we think, and we act as Malaysians. We are moderate, balanced, and just in our interactions, fully embracing the *wasatiyyah* concept.

### Clear moral compass

Diverse religious and spiritual values continue to be respected and accepted as part and parcel of a caring society. Malaysians are imbued with strong moral values, unquestionable ethics, and ingrained with honesty, integrity, and compassion.

### Family-centred support systems

Strong family units are the bedrock of our natural support system, providing care, inculcating moral values, and contributing to a stronger nation.

### An inspiring role for seniors

Senior Malaysians are actively involved in nurturing younger Malaysians and ensuring that the connection with our nation's rich history is not lost. Seniors are appreciated, respected, and protected. There is a conducive environment for them to lead an independent, productive, and fulfilling life.

### A culture of compassion

Our compassionate nature is reflected in how Malaysian society provides opportunities and cares for the underprivileged, the vulnerable, the disabled, and those with special needs.

#### Box 10-1

#### **Wasatiyyah**

In the context of national development, social cohesion, and national unity, the *wasatiyyah* concept emphasises moderation, balance, justice, and excellence in all spheres of life for the individual and the community with the aim of developing a harmonious Malaysian society.

Source: Malaysian Institute of Wasatiyyah, 2015

## LIVEABILITY

### Elevated state of wellbeing

Malaysians enjoy a high standard of wellbeing. We are highly satisfied with our lives and confident in our ability to shape our own future. This state of wellbeing is a result of a combination of factors including high-income, meaningful work, a high regard for personal rights, a safe and peaceful environment, strong family and community networks, and physical and mental health.

### Universal healthcare and healthy living

All Malaysians have access to quality healthcare while state-of-the-art diagnostics equipment complement healthcare services. Personalised healthcare with virtual monitoring and digitised records will be the norm. Malaysians produce and consume healthy food. We care for our health by keeping fit physically, mentally, and emotionally.

### Caring for our children

Children are given the best possible start to life with quality healthcare and childcare facilities as well as other social support systems regardless of who they are and where they come from. Our children are safe and protected at all times.

### World-class cities for everyone

Our cities are modern, vibrant, liveable, culturally enriching, and provide a sense of belonging. Everyone has the opportunity to realise their potential and live with dignity. Everyone can afford to own or rent a home as well as have seamless access and ubiquitous connectivity at home and at work. Malaysian cities will be among the most liveable cities globally.

### Redefining rural living

Rural Malaysia is an increasingly appealing lifestyle choice for Malaysians who value living and working in tranquil settings. Rural areas are well-connected, thriving, and have facilities and services comparable to cities so that communities can live comfortably, be productive, and enjoy equitable opportunities.

### Artistic innovation and preservation

Malaysians create, appreciate, and promote artistic vibrancy, and celebrate their diverse heritage. The heritage sites and the local arts and culture are well preserved, highly valued, and renowned globally.

# People

## TALENT

### Holistic and balanced talent

All Malaysians have access to quality education, which focuses on developing both knowledge and skills (*ilmu*), as well as ethics and morality (*akhlak*). The education system places due importance on co-curricular activities such as arts, culture, sports, and volunteerism, grooming young Malaysians to become impressive personalities who have discipline, dedication, and drive for success.

### Knowledgeable and innovative individuals

Malaysians are knowledgeable and innovative individuals who appreciate diverse views and are able to think critically. We have an insatiable appetite for knowledge. We are lifelong learners. We excel in arts, sciences, and humanities. We are at the forefront of research and innovation in fields such as medicine, agriculture, and environment. We are able to contribute to the progress of the nation and betterment of mankind.

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### Inspirational leaders

Malaysians are confident, emotionally and spiritually intelligent, and effective communicators who can lead within and across national boundaries to inspire others to greater heights. We have thought leaders who contribute to global wellbeing. We produce many beacons of towering personalities who are globally renowned for their expertise, experience, leadership, sportsmanship, and philanthropy.

### Entrepreneurial leaders

Malaysians are innovative entrepreneurs, who are leaders and innovators in their respective fields, able to create value for the rapidly expanding consumer class. Our children are trained to think, to adapt, to lead, and to create jobs that do not yet exist today. We are persistent, disciplined, and we view failure as a tool that prepares us for future successes.

## GOVERNANCE

### Protecting the *rakyat*

The executive, legislative, and judicial institutions are independent and trusted, ensuring that the rights of the *rakyat* are well-protected. Our institutions are renowned for their commitment, integrity, and relevant knowledge in the service of the *rakyat*.

### Leaders who are *amanah*

The *rakyat* values transparency and responsible conduct of Government leaders. Our leaders are courageous and embrace the concept of *amanah* in carrying out their responsibilities.

### Prudent and sophisticated resource management

We live within our means. Malaysian individuals and organisations are prudent in spending. Public resources are managed carefully and sustainably in a transparent manner, while policy implementation is backed by facts, objective analyses, and takes into account the wellbeing of the *rakyat*.

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### Mature politics

Malaysians support mature politics and welcome open intellectual discourse between divergent views. The *rakyat* have freedom of access to information and participate productively in upholding the democratic process.

### A government that delivers

Malaysians demand and expect government service delivery at all levels to be highly responsive and efficient. Local governments demonstrate strong leadership by engaging the *rakyat* in the decision-making process to achieve the best outcomes. Civil society is empowered to champion social causes and its role and capabilities are expanded to actively participate in the co-creation and delivery of public services.

### An international voice of reason

We are a strong, independent, sovereign nation. Malaysia is a leader in international diplomacy and assumes regional and global leadership on important issues, having a pivotal role in international organisations. Malaysia's advice is often solicited for issues pertaining to global peace, security, and economy. Malaysia will continue to be the bridge that connects the East with the West; the Islamic world and major Asian communities with the rest of the world.

# Economy

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Malaysia is an advanced, progressive, and inclusive economy that leaves an imprint on the world. Our national development moves beyond a focus on economic growth and consumerism, with emphasis on wellbeing of the *rakyat*, quality of life, social equity, the structure of the economy, as well as the adaptability and quality of the workforce.

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## Inclusive economic growth

The economy is strong, stable, and thriving, generating sufficient productive employment opportunities for everyone in the labour market. The prosperity that is created is used to reduce income inequality among the *rakyat*, thus setting the stage for stronger future economic growth.

## A future-proof economy

There are high levels of intangible capital such as quality institutions, skilled human capital, and relational capital. The economy is resilient with increased capacity and flexibility to respond to the changing global economic landscape.

## Productive rural economy

Malaysia has a vibrant and thriving rural economy with attractive economic opportunities, supported by excellent connectivity and social amenities and services on par with urban areas.

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## A fully involved private sector

The private sector is at the forefront of nation-building and practising excellent corporate culture, instilled with integrity and economic patriotism as well as ensuring their business activities support the social fabric of the society and protect the environment. The private sector embraces a strong sense of corporate duty and fair practices, particularly in ensuring their employees' welfare.

## Global champions

Malaysia is synonymous with several global brands and is a market leader for several frontier products and services. Malaysia is associated with integrity, high quality, and high value.

# Environment

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Malaysians adapt and thrive in the face of global environmental and climate challenges. We have a genuine attachment to the land, and are committed to protecting and preserving the environment for the wellbeing of future generations. We capture opportunities from the new climate economy and embrace green practices in our daily lives.

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## Passionate stewards of the environment

Malaysians protect and conserve the environment while attaining rapid socio-economic growth. The environment is no longer seen as a trade-off to a strong economy but a prerequisite to a sustained economic growth. The national balance sheet fully incorporates Malaysia's natural assets such as forests, mineral resources, and pristine water sources. This facilitates better management of these valuable endowments and allows accountability to be assigned to relevant agencies.

## A low carbon future

The nation embraces the prospects of becoming a low carbon economy, which minimises waste. Environmentally friendly practices such as the 6Rs — reuse, reduce, redesign, remanufacture, recover, and recycle are widely applied. We develop economic opportunities arising from the latest innovations in sustainable development.

## Ubiquitous renewable energy

Malaysians are passionate about incorporating sustainable consumption and production practices in their daily lives. Affordable and renewable energy powers homes, transport, and work places.

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## Pride in and respect for our natural heritage

Local communities are surrounded with diverse landscapes and parks that provide habitats for biodiversity. Natural features such as rivers, lakes, and wetlands are well protected and used mainly for recreational and educational purposes. We are committed to protecting our diverse flora and fauna, and these become both a source of national pride and identity.

## The green building revolution

Environmentally friendly homes and work places are a common feature in all residential and office areas. They are not only water- and energy-efficient, but are resilient to climate change.

## Build back better

Malaysia is well prepared for natural disasters, supported by sophisticated and advanced systems for national emergency response, recovery, and reconstruction. After every disaster, we 'build back better' for stronger and safer communities.

# Conclusion

Malaysians have always had high aspirations. Achieving developed nation status is a very important milestone for Malaysia, and is the culmination of a 30-year journey towards realising this aspiration. The next challenge, post-2020, is to become a truly advanced nation in economic, social, and environmental terms. It is envisaged that Malaysians will have an unshakeable national identity and clear moral compass, while all members of society will enjoy an elevated state of wellbeing. Malaysia will be guided by many inspirational leaders and towering personalities, who are moulded by a holistic education system and driven by an insatiable appetite for knowledge. Malaysia will be governed by trusted and independent executive, legislative, and judicial institutions that protect Malaysians equally. Malaysia will have a government that delivers, led by leaders with integrity and conviction who embrace the concept of *amanah*.

Malaysia will punch above its weight in the international arena, both as a strong independent nation and through prominent Malaysian thought leaders in various fields. The economy will be progressive, inclusive, sustainable, and adaptable for the future, with highly productive world-class cities and thriving rural areas. Malaysians will be passionate stewards of the environment and no longer see environmental protection as a trade-off to a strong economy, making Malaysia a truly beautiful and conducive place to live for all. To achieve these aspirations, the enormity of the task ahead will be the greatest in our lifetime, and cannot be underestimated. There will be new challenges for us to face, new opportunities for us to seize, and new horizons to strive for. We will make the journey towards 2020 and beyond together. The nation's future is in our hands.



# Appendix

Gross domestic product by  
expenditure category,  
2010-2020

Gross domestic product by  
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Gross domestic product for  
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## Appendix A2-1

## Gross domestic product by expenditure category, 2010-2020 (in 2010 prices)

Item	RM million, in 2010 prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-2015	2016-2020
<b>Private Expenditure</b>	<b>496,536</b>	<b>533,239</b>	<b>592,169</b>	<b>642,548</b>	<b>693,490</b>	<b>740,071</b>	<b>1,048,457</b>	<b>8.3</b>	<b>7.2</b>
▪ Consumption	395,245	422,376	457,625	490,798	524,979	556,478	760,365	7.1	6.4
▪ Investment	101,291	110,863	134,544	151,750	168,511	183,593	288,092	12.6	9.4
<b>Public Expenditure</b>	<b>186,347</b>	<b>203,116</b>	<b>223,049</b>	<b>232,241</b>	<b>233,276</b>	<b>235,692</b>	<b>277,094</b>	<b>4.8</b>	<b>3.3</b>
▪ Consumption	103,346	117,983	124,390	131,719	137,511	134,840	161,771	5.5	3.7
▪ Investment	83,001	85,133	98,659	100,522	95,765	100,852	115,323	4.0	2.7
<b>Exports of Goods and Services</b>	<b>714,075</b>	<b>743,919</b>	<b>730,961</b>	<b>732,856</b>	<b>770,503</b>	<b>790,450</b>	<b>874,981</b>	<b>2.1</b>	<b>2.1</b>
<b>Imports of Goods and Services</b>	<b>583,337</b>	<b>620,147</b>	<b>638,206</b>	<b>649,208</b>	<b>676,165</b>	<b>701,316</b>	<b>784,235</b>	<b>3.8</b>	<b>2.3</b>
<b>Gross Domestic Product</b>	<b>821,434</b>	<b>864,920</b>	<b>912,261</b>	<b>955,260</b>	<b>1,012,506</b>	<b>1,062,715</b>	<b>1,411,305</b>	<b>5.3</b>	<b>5-6</b>

Notes: Based on GDP in 2010 prices

Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit and Department of Statistics Malaysia

## Appendix A2-2

## Gross domestic product by expenditure category, 2010-2020 (in current prices)

Item	RM million, in current prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-2015	2016-2020
<b>Private Expenditure</b>	<b>496,536</b>	<b>552,099</b>	<b>624,545</b>	<b>690,564</b>	<b>763,810</b>	<b>833,266</b>	<b>1,353,737</b>	<b>10.9</b>	<b>10.2</b>
▪ Consumption	395,245	437,340	482,238	527,749	579,908	628,997	989,079	9.7	9.5
▪ Investment	101,291	114,759	142,307	162,815	183,902	204,269	364,658	15.1	12.3
<b>Public Expenditure</b>	<b>186,347</b>	<b>208,485</b>	<b>238,479</b>	<b>246,821</b>	<b>251,241</b>	<b>259,041</b>	<b>340,304</b>	<b>6.8</b>	<b>5.6</b>
▪ Consumption	103,346	120,993	134,442	139,822	147,646	146,081	194,607	7.2	5.9
▪ Investment	83,001	87,492	104,037	106,999	103,595	112,960	145,697	6.4	5.2
<b>Exports of Goods and Services</b>	<b>714,075</b>	<b>777,302</b>	<b>770,202</b>	<b>770,368</b>	<b>817,176</b>	<b>825,757</b>	<b>1,018,372</b>	<b>2.9</b>	<b>4.3</b>
<b>Imports of Goods and Services</b>	<b>583,337</b>	<b>635,316</b>	<b>665,714</b>	<b>683,408</b>	<b>714,950</b>	<b>747,050</b>	<b>926,935</b>	<b>5.1</b>	<b>4.4</b>
<b>Gross Domestic Product</b>	<b>821,434</b>	<b>911,733</b>	<b>971,252</b>	<b>1,018,821</b>	<b>1,106,580</b>	<b>1,169,041</b>	<b>1,780,737</b>	<b>7.3</b>	<b>8.8</b>
<b>Gross National Income</b>	<b>795,303</b>	<b>890,133</b>	<b>935,411</b>	<b>984,846</b>	<b>1,069,258</b>	<b>1,131,201</b>	<b>1,754,975</b>	<b>7.3</b>	<b>9.2</b>

Notes: Based on GDP in current prices  
Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit and Department of Statistics Malaysia

## Appendix A2-3

## Gross domestic product by kind of economic activity, 2010-2020

Sector	RM million, in 2010 prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-2015	2016-2020
<b>Agriculture</b>	82,882	88,555	89,406	91,097	92,979	93,184	110,707	2.4	3.5
<b>Mining and Quarrying</b>	89,793	85,373	86,751	87,789	90,645	93,673	100,024	0.9	1.3
<b>Manufacturing</b>	192,493	202,960	211,921	219,216	232,868	243,895	312,479	4.8	5.1
<b>Construction</b>	28,213	29,524	34,880	38,646	43,190	47,704	78,022	11.1	10.3
<b>Services</b>	420,382	449,854	479,300	507,935	541,185	571,835	796,722	6.3	6.9
▪ Electricity, Gas and Water	22,173	23,048	24,169	25,226	26,178	27,094	32,830	4.1	3.9
▪ Wholesale & Retail Trade, Accommodation and Restaurants	134,635	143,620	150,407	159,735	173,320	185,410	246,499	6.6	5.9
▪ Transport, Storage and Communications	68,511	73,052	78,274	83,957	90,602	97,363	148,539	7.3	8.8
▪ Finance, Insurance, Real Estate and Business Services	93,939	100,031	107,716	112,105	116,968	121,328	168,270	5.3	6.8
▪ Government Services	64,359	71,503	78,397	84,318	89,498	94,152	127,684	7.9	6.3
▪ Other Services	36,766	38,600	40,337	42,595	44,619	46,487	72,900	4.8	9.4
<b>Plus : Import Duties</b>	7,672	8,654	10,004	10,577	11,639	12,425	13,351	10.1	1.4
<b>Gross Domestic Product</b>	821,434	864,920	912,261	955,260	1,012,506	1,062,715	1,411,305	5.3	5-6

Notes: Based on GDP in 2010 prices  
Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit and Department of Statistics Malaysia

## Appendix A2-4

## Federal Government financial position, 2010-2020

Item	RM billion							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-2015	2016-2020
<b>Revenue</b>	<b>159.7</b>	<b>185.4</b>	<b>207.9</b>	<b>213.4</b>	<b>220.6</b>	<b>222.9</b>	<b>326.4</b>	<b>6.9</b>	<b>7.9</b>
▪ Direct Tax	79.0	102.2	116.9	120.5	126.7	123.2	205.2	9.3	10.7
▪ Indirect Tax	30.5	32.6	34.7	35.4	37.5	48.1	65.6	9.6	6.4
▪ Non-Tax Revenue	48.9	49.4	54.9	54.5	53.9	49.0	49.9	0.1	0.4
▪ Non-Revenue Receipt	1.3	1.1	1.4	3.0	2.5	2.5	5.7	14.2	18.4
<b>Operating Expenditure</b>	<b>151.6</b>	<b>182.6</b>	<b>205.5</b>	<b>211.3</b>	<b>219.6</b>	<b>212.4</b>	<b>289.8</b>	<b>7.0</b>	<b>6.4</b>
▪ Emolument	46.7	50.1	60.0	61.0	66.9	68.0	94.1	7.8	6.7
▪ Supplies and Services	23.8	28.9	32.0	33.9	34.3	36.1	52.5	8.7	7.8
▪ Pension and Gratuities	11.5	13.6	14.1	14.8	18.2	17.7	25.6	8.9	7.7
▪ Debt Service Charges	15.6	17.7	19.5	20.8	22.6	24.4	31.9	9.3	5.5
▪ Grants and Transfers <sup>1</sup>	17.1	19.3	21.7	20.8	22.9	22.2	30.3	5.3	6.4
▪ Subsidies	23.1	36.3	44.1	43.3	39.7	26.8	29.0	3.0	1.6
▪ Other Expenditure <sup>2</sup>	13.8	16.7	14.2	16.6	15.0	17.4	26.4	4.8	8.7
<b>Current Account Balance</b>	<b>8.0</b>	<b>2.8</b>	<b>2.4</b>	<b>2.1</b>	<b>1.0</b>	<b>10.4</b>	<b>36.7</b>	<b>5.4</b>	<b>28.5</b>
▪ % to GDP	1.0	0.3	0.2	0.2	0.1	0.9	2.1	...	...
<b>Gross Development Expenditure</b>	<b>52.8</b>	<b>46.4</b>	<b>46.9</b>	<b>42.2</b>	<b>39.5</b>	<b>48.5</b>	<b>47.6</b>	<b>-1.7</b>	<b>-0.4</b>
<b>Overall Balance</b>	<b>-43.3</b>	<b>-42.5</b>	<b>-42.0</b>	<b>-38.6</b>	<b>-37.4</b>	<b>-37.0</b>	<b>-9.9</b>	<b>-3.1</b>	<b>-23.2</b>
▪ % to GDP	-5.3	-4.7	-4.3	-3.8	-3.4	-3.2	-0.6	...	...
<b>Total Debt</b>	<b>407.1</b>	<b>456.1</b>	<b>501.6</b>	<b>539.9</b>	<b>582.8</b>	<b>622.7</b>	<b>774.0</b>	...	...
▪ % to GDP	49.6	50.0	51.6	53.0	52.7	53.3	43.5	...	...
▪ Domestic	390.4	438.0	484.8	523.1	566.1	606.1	757.6	...	...
▪ Foreign	16.7	18.1	16.8	16.8	16.8	16.6	16.4	...	...

Notes: Based on GDP in 2010 prices

Numbers may not necessarily add up due to rounding

<sup>1</sup> Includes grants and transfers to state governments and grants to statutory bodies

<sup>2</sup> Includes scholarships and educational aid, operating grants to primary and secondary schools, assets acquisition, refunds and write-offs, and other expenditures not classified

Source: Economic Planning Unit and Ministry of Finance

## Appendix A2-5

## Merchandise trade, 2010-2020

Item	RM million							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-2015	2016-2020
<b>Gross Exports</b>									
▪ Agriculture	71,351	94,594	80,413	68,799	69,200	61,751	69,140	-2.8	2.3
▪ Mining	73,830	91,382	94,414	97,937	104,595	72,882	85,390	-0.3	3.2
▪ Manufacturing	489,611	507,417	521,740	548,146	587,252	636,742	812,779	5.4	5.0
▪ Others	4,030	4,470	6,074	5,110	5,081	6,582	7,295	10.3	2.1
<b>Total</b>	<b>638,822</b>	<b>697,862</b>	<b>702,641</b>	<b>719,992</b>	<b>766,129</b>	<b>777,957</b>	<b>974,603</b>	<b>4.0</b>	<b>4.6</b>
<b>Gross Imports</b>									
▪ Capital Goods	73,769	80,171	96,098	98,202	96,177	107,561	146,438	7.8	6.4
▪ Intermediate Goods	365,681	385,739	363,714	379,455	408,383	426,620	502,448	3.1	3.3
▪ Consumption Goods	34,477	41,024	43,746	47,584	50,316	52,150	78,360	8.6	8.5
▪ Others <sup>1</sup>	19,242	21,140	37,398	31,453	29,025	30,059	36,862	9.3	4.2
<b>Retained Imports</b>	<b>493,170</b>	<b>528,074</b>	<b>540,956</b>	<b>556,693</b>	<b>583,901</b>	<b>616,390</b>	<b>764,107</b>	<b>4.6</b>	<b>4.4</b>
▪ Imports for Re-exports	35,658	45,551	65,721	92,002	99,115	107,923	153,188	24.8	7.3
<b>Total</b>	<b>528,828</b>	<b>573,625</b>	<b>606,677</b>	<b>648,695</b>	<b>683,016</b>	<b>724,313</b>	<b>917,296</b>	<b>6.5</b>	<b>4.8</b>

Notes: Based on GDP in 2010 prices

Numbers may not necessarily add up due to rounding

<sup>1</sup> Dual use goods, goods not elsewhere stated and transactions below RM5,000

Source: Economic Planning Unit and Department of Statistics Malaysia

## Appendix A2-6

## Balance of payments, 2010-2020

Item	RM million						
	Actual					Estimate	Target
	2010	2011	2012	2013	2014	2015	2020
<b>Goods and Services (net)</b>	<b>130,738</b>	<b>141,985</b>	<b>104,488</b>	<b>86,959</b>	<b>102,226</b>	<b>78,707</b>	<b>91,437</b>
<b>Goods (net)</b>	<b>124,182</b>	<b>140,529</b>	<b>113,030</b>	<b>96,552</b>	<b>113,414</b>	<b>86,692</b>	<b>95,871</b>
▪ Exports	602,609	658,421	644,864	637,683	679,913	679,369	822,482
▪ Imports	478,427	517,893	531,835	541,131	566,500	592,677	726,611
<b>Services (net)</b>	<b>6,556</b>	<b>1,457</b>	<b>-8,542</b>	<b>-9,592</b>	<b>-11,188</b>	<b>-7,985</b>	<b>-4,433</b>
▪ Transportation	-17,168	-19,445	-22,040	-23,909	-26,108	-26,008	-36,957
▪ Travel	31,617	28,959	24,821	29,167	33,472	36,295	54,406
▪ Other Services	-7,392	-7,534	-10,908	-14,632	-18,216	-18,137	-21,653
▪ Government Transaction n.i.e. <sup>1</sup>	-502	-524	-415	-218	-337	-136	-230
<b>Primary Income (net)</b>	<b>-26,131</b>	<b>-21,600</b>	<b>-35,841</b>	<b>-33,975</b>	<b>-37,322</b>	<b>-37,839</b>	<b>-25,762</b>
▪ Compensation of Employee	-2,082	-2,331	-3,082	-4,007	-5,000	-4,485	-4,266
▪ Investment Income	-24,049	-19,269	-32,760	-29,969	-32,322	-33,354	-21,496
<b>Secondary Income (net)</b>	<b>-21,790</b>	<b>-21,061</b>	<b>-18,469</b>	<b>-17,498</b>	<b>-17,586</b>	<b>-18,457</b>	<b>-19,173</b>
<b>Current Account Balance</b>	<b>82,816</b>	<b>99,324</b>	<b>50,177</b>	<b>35,485</b>	<b>47,317</b>	<b>22,410</b>	<b>46,502</b>
▪ % to GNI	10.4	11.2	5.4	3.6	4.4	2.0	2.6
<b>Capital Account (net)</b>	<b>-111</b>	<b>-133</b>	<b>241</b>	<b>-15</b>	<b>272</b>	...	...
▪ Capital Transfers	-16	-14	-93	-22	-9	...	...
▪ Non-Produced Non-Financial Assets	-95	-119	334	7	281	...	...
<b>Financial Account (net)</b>	<b>-19,945</b>	<b>23,265</b>	<b>-23,014</b>	<b>-20,216</b>	<b>-81,597</b>	...	...
▪ Direct Investment	-13,976	-9,337	-24,415	-6,276	-18,480	...	...
— Abroad	-43,160	-46,662	-52,952	-44,450	-53,824	...	...
— In Malaysia	29,183	37,325	28,537	38,175	35,344	...	...
▪ Portfolio Investment	48,467	26,139	63,859	-3,012	-38,536	...	...
▪ Financial Derivatives	-698	-76	972	-253	-975	...	...

Notes: Based on GDP in 2010 prices; data reflect the treatment of goods for processing (GFP) according to Balance of Payments Manual 6 (BPM6)

Numbers may not necessarily add up due to rounding

<sup>1</sup> n.i.e. - not included elsewhere

Source: Economic Planning Unit and Department of Statistics Malaysia

[continued]

## Appendix A2-6

## Balance of payments, 2010-2020

Item	RM million						
	Actual					Estimate	Target
	2010	2011	2012	2013	2014	2015	2020
▪ Other Investment	-53,738	6,539	-63,431	-10,675	-23,606	...	...
— Official Sector	119	-1,337	-1,674	-3,965	-2,030	...	...
— Private Sector	-53,856	7,876	-61,756	-6,710	-21,576	...	...
▪ Balance on Capital and Financial Accounts	-20,056	23,132	-22,773	-20,231	-81,325	...	...
▪ Errors and Emissions	-65,387	-27,774	-23,531	-605	-2,500	...	...
<b>Overall balance</b>	<b>-2,628</b>	<b>94,682</b>	<b>3,873</b>	<b>14,649</b>	<b>-36,507</b>	...	...
BNM International Reserves, Net	328,649	423,331	427,204	441,853	405,515	...	...
▪ Months of Retained Imports	8.6	9.6	9.5	9.5	8.3	...	...

Notes: Based on GDP in 2010 prices; data reflect the treatment of goods for processing (GFP) according to Balance of Payments Manual 6 (BPM6)

Numbers may not necessarily add up due to rounding

<sup>1</sup> n.i.e. - not included elsewhere

Source: Economic Planning Unit and Department of Statistics Malaysia

## Appendix A2-7

## Gross domestic product for states by economic activities, 2011-2020

State/Sector	RM million, in 2010 prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-15	2016-20
<b>JOHOR</b>									
▪ Agriculture	12,716	13,559	14,016	14,371	14,645	14,581	16,696	2.8	2.7
▪ Mining & Quarrying	93	96	115	133	133	134	124	7.6	-1.6
▪ Manufacturing	23,538	24,780	26,110	27,425	29,157	30,584	40,314	5.4	5.7
▪ Construction	2,689	2,667	3,138	3,388	3,785	4,187	6,648	9.3	9.7
▪ Services	34,357	37,158	39,800	41,430	44,066	46,462	64,102	6.2	6.6
▪ <b>GDP</b>	<b>74,088</b>	<b>78,980</b>	<b>83,980</b>	<b>88,021</b>	<b>93,189</b>	<b>97,445</b>	<b>129,490</b>	<b>5.6</b>	<b>5.9</b>
▪ Per Capita GDP (RM in current prices)	22,031	24,306	25,316	26,070	28,105	29,268	42,355		
<b>KEDAH</b>									
▪ Agriculture	4,466	4,892	4,912	4,995	5,080	5,047	6,162	2.5	4.1
▪ Mining & Quarrying	26	27	33	38	38	38	35	7.9	-1.9
▪ Manufacturing	7,300	8,090	8,587	8,842	9,324	9,700	11,856	5.9	4.1
▪ Construction	711	716	797	711	752	786	947	2.0	3.8
▪ Services	14,141	15,156	16,123	17,199	18,377	19,465	27,452	6.6	7.1
▪ <b>GDP</b>	<b>26,774</b>	<b>29,010</b>	<b>30,614</b>	<b>31,956</b>	<b>33,759</b>	<b>35,239</b>	<b>46,675</b>	<b>5.6</b>	<b>5.8</b>
▪ Per Capita GDP (RM in current prices)	13,735	15,339	15,678	16,197	17,395	18,053	25,708		
<b>KELANTAN</b>									
▪ Agriculture	4,556	4,899	4,895	4,915	4,960	4,889	5,834	1.4	3.6
▪ Mining & Quarrying	22	24	29	33	33	33	31	8.7	-1.5
▪ Manufacturing	806	853	871	866	908	938	1,112	3.1	3.5
▪ Construction	273	270	300	241	255	266	320	-0.5	3.7
▪ Services	9,614	10,288	11,086	11,706	12,313	13,038	16,940	6.3	5.4
▪ <b>GDP</b>	<b>15,292</b>	<b>16,357</b>	<b>17,205</b>	<b>17,788</b>	<b>18,499</b>	<b>19,198</b>	<b>24,273</b>	<b>4.7</b>	<b>4.8</b>
▪ Per Capita GDP (RM in current prices)	9,619	10,703	10,909	11,006	11,658	11,993	16,055		

Notes: Based on GDP in 2010 prices  
Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit

[continued]

## Appendix A2-7

## Gross domestic product for states by economic activities, 2011-2020

State/Sector	RM million, in 2010 prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-15	2016-20
<b>MELAKA</b>									
▪ Agriculture	2,627	2,787	2,897	3,115	3,204	3,219	3,857	4.2	3.7
▪ Mining & Quarrying	11	12	14	16	16	16	15	7.5	-0.7
▪ Manufacturing	9,936	10,267	10,886	10,765	11,309	11,719	14,050	3.4	3.7
▪ Construction	749	760	1,186	906	959	1,005	1,217	6.0	3.9
▪ Services	10,472	11,149	11,805	12,517	13,405	14,232	20,307	6.3	7.4
▪ <b>GDP</b>	<b>23,803</b>	<b>24,983</b>	<b>26,803</b>	<b>27,339</b>	<b>28,914</b>	<b>30,215</b>	<b>39,472</b>	<b>4.9</b>	<b>5.5</b>
▪ Per Capita GDP (RM in current prices)	28,900	32,000	34,632	34,752	37,200	38,666	54,420		
<b>NEGERI SEMBILAN</b>									
▪ Agriculture	3,518	3,705	3,802	3,757	3,944	4,047	4,902	2.8	3.9
▪ Mining & Quarrying	28	29	34	39	39	39	37	7.0	-1.2
▪ Manufacturing	13,896	14,752	15,393	15,492	16,338	17,000	21,540	4.1	4.8
▪ Construction	767	804	907	930	984	1,030	1,242	6.1	3.8
▪ Services	11,949	12,581	13,401	13,935	14,601	15,163	20,302	4.9	6.0
▪ <b>GDP</b>	<b>30,387</b>	<b>32,044</b>	<b>33,730</b>	<b>34,745</b>	<b>36,556</b>	<b>37,973</b>	<b>48,770</b>	<b>4.6</b>	<b>5.1</b>
▪ Per Capita GDP (RM in current prices)	29,517	32,318	33,844	34,227	36,404	37,573	51,773		
<b>PAHANG</b>									
▪ Agriculture	9,809	10,573	10,673	11,200	11,697	11,942	14,696	4.0	4.2
▪ Mining & Quarrying	242	270	298	324	326	330	311	6.4	-1.2
▪ Manufacturing	7,875	8,276	8,830	9,256	9,818	10,276	13,701	5.5	5.9
▪ Construction	1,028	1,000	1,143	1,212	1,282	1,342	1,618	5.5	3.8
▪ Services	16,376	17,410	18,384	19,433	20,768	22,002	30,285	6.1	6.6
▪ <b>GDP</b>	<b>35,340</b>	<b>37,537</b>	<b>39,341</b>	<b>41,451</b>	<b>43,921</b>	<b>45,923</b>	<b>60,648</b>	<b>5.4</b>	<b>5.7</b>
▪ Per Capita GDP (RM in current prices)	23,530	26,568	26,681	27,156	28,867	29,907	41,834		

Notes: Based on GDP in 2010 prices  
Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit

State/Sector	RM million, in 2010 prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-15	2016-20
<b>PULAU PINANG</b>									
▪ Agriculture	1,229	1,308	1,371	1,411	1,467	1,492	1,660	4.0	2.2
▪ Mining & Quarrying	26	28	32	37	37	38	37	7.7	-0.5
▪ Manufacturing	26,001	26,642	27,398	28,473	30,803	32,886	45,000	4.8	6.5
▪ Construction	1,344	1,412	1,722	1,711	1,810	1,895	2,289	7.1	3.9
▪ Services	25,209	26,848	28,471	30,179	32,262	34,190	45,883	6.3	6.1
▪ <b>GDP</b>	<b>54,088</b>	<b>56,578</b>	<b>59,403</b>	<b>62,290</b>	<b>66,907</b>	<b>71,063</b>	<b>95,475</b>	<b>5.6</b>	<b>6.1</b>
▪ Per Capita GDP (RM in current prices)	34,322	35,956	37,779	39,536	43,490	46,019	67,544		
<b>PERAK</b>									
▪ Agriculture	8,440	9,020	9,229	9,164	9,220	9,061	9,949	1.4	1.9
▪ Mining & Quarrying	151	164	198	222	223	229	236	8.7	0.6
▪ Manufacturing	7,638	8,464	8,841	9,313	9,913	10,412	13,344	6.4	5.1
▪ Construction	943	948	1,433	1,720	1,820	1,905	2,301	15.1	3.8
▪ Services	26,495	28,044	30,227	32,021	34,263	36,345	51,233	6.5	7.1
▪ <b>GDP</b>	<b>43,682</b>	<b>46,658</b>	<b>49,945</b>	<b>52,463</b>	<b>55,465</b>	<b>57,980</b>	<b>77,099</b>	<b>5.8</b>	<b>5.9</b>
▪ Per Capita GDP (RM in current prices)	18,362	20,396	21,617	22,258	23,976	25,017	36,434		
<b>PERLIS</b>									
▪ Agriculture	1,169	1,101	1,119	1,092	1,100	1,123	1,450	-0.8	5.2
▪ Mining & Quarrying	9	9	11	11	11	11	10	3.6	-1.8
▪ Manufacturing	355	401	416	426	444	457	529	5.2	3.0
▪ Construction	143	137	127	130	138	146	181	0.3	4.4
▪ Services	2,393	2,531	2,675	2,801	2,893	2,961	3,566	4.4	3.8
▪ <b>GDP</b>	<b>4,142</b>	<b>4,230</b>	<b>4,418</b>	<b>4,545</b>	<b>4,679</b>	<b>4,796</b>	<b>5,838</b>	<b>3.0</b>	<b>4.0</b>
▪ Per Capita GDP (RM in current prices)	17,568	18,464	19,536	20,075	21,051	21,512	28,322		

Notes: Based on GDP in 2010 prices

Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit

[continued]

## Appendix A2-7

## Gross domestic product for states by economic activities, 2011-2020

State/Sector	RM million, in 2010 prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-15	2016-20
<b>SELANGOR</b>									
▪ Agriculture	3,990	4,064	4,323	4,187	4,317	4,350	5,200	1.7	3.6
▪ Mining & Quarrying	173	180	211	240	242	244	229	7.1	-1.2
▪ Manufacturing	53,708	56,661	59,922	62,166	66,340	69,852	90,676	5.4	5.4
▪ Construction	9,529	10,358	11,510	13,265	15,235	17,328	31,787	12.7	12.9
▪ Services	106,425	112,679	120,451	128,722	137,831	146,308	206,549	6.6	7.1
▪ <b>GDP</b>	<b>178,501</b>	<b>189,211</b>	<b>202,665</b>	<b>214,872</b>	<b>230,885</b>	<b>245,468</b>	<b>342,363</b>	<b>6.6</b>	<b>6.9</b>
▪ Per Capita GDP (RM in current prices)	32,441	34,718	37,108	39,233	43,165	45,617	69,043		
<b>TERENGGANU</b>									
▪ Agriculture	2,550	2,652	2,585	2,592	2,746	2,846	3,519	2.2	4.3
▪ Mining & Quarrying	19	22	26	30	30	30	29	9.9	-1.2
▪ Manufacturing	8,167	8,034	8,353	8,550	8,776	8,884	9,471	1.7	1.3
▪ Construction	853	828	991	1,041	1,101	1,152	1,390	6.2	3.8
▪ Services	11,418	12,034	12,343	13,116	13,844	14,484	19,221	4.9	5.8
▪ <b>GDP</b>	<b>23,020</b>	<b>23,589</b>	<b>24,316</b>	<b>25,343</b>	<b>26,513</b>	<b>27,412</b>	<b>33,645</b>	<b>3.6</b>	<b>4.2</b>
▪ Per Capita GDP (RM in current prices)	21,811	23,363	23,919	24,438	25,672	26,239	33,517		
<b>SABAH</b>									
▪ Agriculture	15,973	17,081	16,202	16,521	16,633	16,756	20,312	1.0	3.9
▪ Mining & Quarrying	13,542	11,371	12,575	12,889	13,186	13,514	14,255	0.0	1.1
▪ Manufacturing	4,587	4,914	4,862	5,070	5,360	5,590	6,917	4.0	4.4
▪ Construction	1,378	1,481	1,676	1,447	1,632	1,822	3,007	5.7	10.5
▪ Services	21,761	23,522	25,077	26,365	27,632	28,705	38,734	5.7	6.2
▪ <b>GDP</b>	<b>57,434</b>	<b>58,558</b>	<b>60,578</b>	<b>62,476</b>	<b>64,646</b>	<b>66,604</b>	<b>83,463</b>	<b>3.0</b>	<b>4.6</b>
▪ Per Capita GDP (RM in current prices)	17,618	19,544	19,219	19,155	20,332	20,743	27,496		

Notes: Based on GDP in 2010 prices

Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit

State/Sector	RM million, in 2010 prices							Average annual growth rate, %	
	Actual					Estimate	Target	Estimate Tenth Plan	Target Eleventh Plan
	2010	2011	2012	2013	2014	2015	2020	2011-15	2016-20
<b>SARAWAK</b>									
▪ Agriculture	11,692	12,768	13,231	13,600	13,789	13,657	16,287	3.2	3.6
▪ Mining & Quarrying	21,378	22,457	20,788	22,172	23,037	23,880	25,856	2.2	1.6
▪ Manufacturing	23,989	25,547	25,738	26,388	27,803	28,799	35,168	3.7	4.1
▪ Construction	2,468	2,436	2,962	3,009	3,384	3,738	6,162	8.7	10.5
▪ Services	27,349	29,260	31,139	32,807	34,570	36,107	50,067	5.7	6.8
▪ <b>GDP</b>	<b>87,177</b>	<b>92,736</b>	<b>94,106</b>	<b>98,209</b>	<b>102,838</b>	<b>106,454</b>	<b>133,831</b>	<b>4.1</b>	<b>4.7</b>
▪ Per Capita GDP (RM in current prices)	35,053	40,728	41,676	42,532	45,677	47,051	64,082		
<b>WP KUALA LUMPUR</b>									
▪ Agriculture	2	2	2	2	2	2	2	-0.3	1.3
▪ Mining & Quarrying	37	40	46	53	53	53	51	7.6	-0.8
▪ Manufacturing	4,048	4,515	4,912	5,352	5,693	5,876	7,636	7.7	5.4
▪ Construction	5,311	5,677	6,943	8,868	9,983	11,028	18,823	15.7	11.3
▪ Services	100,411	108,922	115,882	123,075	131,562	139,417	197,979	6.8	7.3
▪ <b>GDP</b>	<b>110,816</b>	<b>120,573</b>	<b>129,365</b>	<b>138,490</b>	<b>148,547</b>	<b>157,715</b>	<b>225,931</b>	<b>7.3</b>	<b>7.5</b>
▪ Per Capita GDP (RM in current prices)	63,390	69,265	76,056	81,581	87,801	92,802	145,585		
<b>WP LABUAN</b>									
▪ Agriculture	146	145	150	174	174	171	180	3.2	1.0
▪ Mining & Quarrying	...	...	...	...	...	...	...	...	...
▪ Manufacturing	650	765	804	831	882	923	1,165	7.3	4.8
▪ Construction	27	29	44	67	71	74	91	22.5	4.0
▪ Services	2,013	2,272	2,435	2,628	2,799	2,955	4,102	8.0	6.8
▪ <b>GDP</b>	<b>2,855</b>	<b>3,233</b>	<b>3,451</b>	<b>3,719</b>	<b>3,947</b>	<b>4,146</b>	<b>5,562</b>	<b>7.7</b>	<b>6.1</b>
▪ Per Capita GDP (RM in current prices)	32,387	36,878	40,407	43,502	45,562	47,288	66,558		

Notes: Based on GDP in 2010 prices

Numbers may not necessarily add up due to rounding

Source: Economic Planning Unit

## Appendix A5-1

## Population by age, ethnic and strata, 2010-2020

	2010		2015 <sup>2</sup>		2020		Average Annual Growth Rate %	
	Million	% to Total	Million	% to Total	Million	% to Total	Tenth Plan	Eleventh Plan
<b>Total Population</b>	<b>28.6</b>	<b>100.0</b>	<b>30.5</b>	<b>100.0</b>	<b>32.4</b>	<b>100.0</b>	<b>1.3</b>	<b>1.3</b>
<b>Age Structure</b>								
▪ 0-14	7.8	27.4	7.7	25.4	7.8	24.0	-0.2	0.1
▪ 15-64	19.3	67.6	21.0	68.8	22.5	69.2	1.6	1.4
▪ 65 and above	1.4	5.0	1.8	5.8	2.2	6.8	4.5	4.4
<b>Ethnicity</b>								
Citizens	26.3	100.0	28.1	100.0	30.0	100.0		
▪ Malay	14.3	54.5	15.5	55.1	16.7	55.8	1.6	1.6
▪ Other Bumiputera	3.4	12.8	3.7	13.1	4.0	13.4	1.8	1.8
▪ Chinese	6.4	24.5	6.6	23.7	6.8	22.8	0.6	0.6
▪ Indian	1.9	7.3	2.0	7.2	2.1	7.0	0.9	0.9
▪ Others	0.2	0.9	0.3	1.0	0.3	1.0	3.3	2.8
Non-Citizens <sup>1</sup>	2.3		2.4		2.5		0.8	0.7
<b>Strata</b>								
▪ Urban	20.3	70.9	22.7	74.3	25.0	77.2	2.2	2.0
▪ Rural	8.3	29.0	7.8	25.7	7.4	22.8	-1.2	-1.1
▪ Total Fertility Rate	2.2		2.1		2.0			
▪ Median Age (years )	26.3		28.1		29.9			
▪ Dependency Ratio, %	47.8		45.4		44.5			

1 This includes permanent residents, foreign workers with work permits, expatriates and foreign students

2 Population projection based on the Population and Housing Census of 2010, adjusted for under enumeration

Source: Department of Statistics Malaysia

## Appendix A5-2

## Labour force, employment and job creation, 2010-2020

Industry	Labour Force and Employment						Average Annual Growth Rate, %		Net Job Creation			
	2010		2015		2020		Tenth Plan 2011- 15	Eleventh Plan 2016- 20	Tenth Plan		Eleventh Plan	
	000' person	% of total	000' person	% of total	000' person	% of total			000' person	% of total	000' person	% of total
Agriculture, Forestry, Livestock & Fishing	1,604.0	13.4	1,615.2	11.7	1,610.0	10.5	0.1	-0.1	11.2	0.6	-5.2	-0.3
Mining & Quarrying	82.5	0.7	81.6	0.6	82.6	0.5	-0.2	0.2	-0.8	-0.0	1.0	0.1
Manufacturing	2,038.6	17.0	2,469.4	18.0	2,787.9	18.2	3.9	2.5	430.7	23.6	318.6	21.1
Construction	1,141.7	9.5	1,219.6	8.8	1,259.7	8.3	1.3	0.6	77.9	4.3	40.1	2.7
Services Sector	7,091.7	59.4	8,395.6	60.9	9,551.7	62.5	3.4	2.6	1,303.9	71.5	1,156.1	76.5
<b>Total Employment</b>	<b>11,958.5</b>	<b>100.0</b>	<b>13,781.4</b>	<b>100.0</b>	<b>15,292.0</b>	<b>100.0</b>	<b>2.9</b>	<b>2.1</b>	<b>1,822.9</b>	<b>28.5</b>	<b>1,510.6</b>	<b>23.5</b>
<b>Total Labour Force</b>	<b>12,361.3</b>		<b>14,191.3</b>		<b>15,735.2</b>		<b>2.8</b>	<b>2.1</b>				
<b>Unemployed</b>	<b>402.8</b>		<b>409.9</b>		<b>443.2</b>							
Unemployment rate, %	3.3		2.9		2.8							
<b>Labour Force Participation, %</b>	<b>64.3</b>		<b>67.7</b>		<b>70.1</b>							
Male	79.3		80.3		80.8							
Female	46.8		54.5		59.0							

Notes: 2015 - estimate

2020 - forecast based on 5.8% GDP growth and 3.7% productivity growth in the 11th Malaysia Plan period

Source: Department of Statistics Malaysia

## Appendix A5-3

## Employment by major occupational group, 2010-2020

Occupational Group	Employment by Major Occupational Group						Average Annual Growth Rate, %	
	000' person			% of total			Tenth Plan	Eleventh Plan
	2010	2015	2020	2010	2015	2020		
<b>Skilled</b>								
Legislators, Senior Officials & Managers	860.9	799.3	984.1	7.2	5.8	6.4	-1.5	4.2
Professionals	741.1	1,502.2	2,109.2	6.2	10.9	13.8	15.2	7.0
Technicians & Associate Professionals	1,704.2	1,557.3	2,258.4	14.3	11.3	14.8	-1.8	7.7
<b>Semi-skilled</b>								
Clerical Workers	1,189.1	1,226.5	1,327.3	9.9	8.9	8.7	0.6	1.6
Service Workers & Shop & Market Sales Workers	1,969.2	2,921.7	3,299.0	16.5	21.2	21.5	8.2	2.5
Skilled Agricultural & Fishery Workers	1,388.9	1,171.4	1,163.0	11.6	8.5	7.6	-3.3	-0.1
Craft & Related Trade Workers	1,234.4	1,488.4	1,554.8	10.3	10.8	10.2	3.8	0.9
Plant & Machine Operators & Assemblers	1,510.3	1,722.7	1,583.1	12.6	12.5	10.4	2.7	-1.7
<b>Low-Skilled</b>								
Elementary Occupations	1,360.4	1,391.9	1,013.1	11.4	10.1	6.6	0.5	-6.2
<b>Total Employment</b>	<b>11,958.5</b>	<b>13,781.4</b>	<b>15,292.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>2.9</b>	<b>2.1</b>

Notes: 2015 - estimate

2020 - forecast based on 5.8% GDP growth and 3.7% productivity growth in the 11th Malaysia Plan period

Source: Department of Statistics Malaysia

## Appendix A5-4

## Employment by skills category group, 2010-2020

Industry	Employment by Major Occupational Group						Average Annual Growth Rate, %	
	2010		2015		2020		Tenth Plan	Eleventh Plan
	000' person	% of total	000' person	% of total	000' person	% of total		
Skilled	3,306.2	27.6	3,858.8	28.0	5,351.7	35.0	3.1	6.8
Semi-skilled	7,291.9	61.0	8,530.7	61.9	8,927.2	58.4	3.2	0.9
Low-Skilled	1,360.4	11.4	1,391.9	10.1	1,013.1	6.6	0.5	-6.2
<b>Total Employment</b>	<b>11,958.5</b>	<b>100.0</b>	<b>13,781.4</b>	<b>100.0</b>	<b>15,292.0</b>	<b>100.0</b>	<b>2.9</b>	<b>2.1</b>

Notes: 2015 - estimate

2020 - forecast

Source: Department of Statistics Malaysia

## Appendix A6-1

## Key achievements of environmental and natural resources management, 2011-2015

Focus area	Initiative	Achievement
Mitigation	Energy efficiency for buildings	<ul style="list-style-type: none"> <li>Retrofitting of four existing government buildings resulted in reduction of electricity use ranging from 4% to 19% monthly, equivalent to RM7,000 to RM130,000 savings</li> </ul>
	Energy efficiency for electrical appliances	<ul style="list-style-type: none"> <li>The Minimum Energy Performance Standards (MEPS) for domestic electrical appliances, namely bulb, fan, refrigerator, television and air-conditioner, gazetted in 2013, resulted in reduced electricity consumption and savings</li> <li>Implementation of the Sustainability Achieved via Energy Efficiency (SAVE) Programme, 2011-2013 resulted in: <ul style="list-style-type: none"> <li>reduction of domestic electricity consumption of 306.9 gigawatt hour</li> <li>savings of RM78.4 million</li> <li>greenhouse gases (GHGs) emission reduction of 208,705 tonnes carbon dioxide equivalent (tCO<sub>2</sub>eq)</li> </ul> </li> </ul>
	Renewable energy through Feed-in Tariff (FiT)	<ul style="list-style-type: none"> <li>As of 2013, GHGs emission reduction through FiT was 432,161 tCO<sub>2</sub>eq</li> <li>The total installed capacity increased from 53 megawatts in 2009 to 243 megawatt in 2014</li> </ul>
	Green Technology Financing Scheme (GTFS)	<ul style="list-style-type: none"> <li>As of 2013, GHGs emission reduction through implementation of projects under GTFS was 92,993 tCO<sub>2</sub>eq</li> </ul>
	Fuel standards improvement	<ul style="list-style-type: none"> <li>Gazettement of EURO 4M fuel standard in 2013 and enforcement of its use in RON97 in 2015</li> <li>Construction of 35 depots nationwide with in-line blending facilities for the implementation of the B5 programme (5% biodiesel. As of 2013, GHGs emission reduction through the B5 programme was 1.4 million tCO<sub>2</sub>eq</li> <li>Introduction of B7 programme (7% biodiesel) by end of 2014</li> </ul>
	Land use, land-use change and forestry	<ul style="list-style-type: none"> <li>Gazettement of Permanent Reserved Forest in Pahang, Perak and Selangor. As of 2013, GHGs emission avoidance was 11.8 million tCO<sub>2</sub>eq</li> <li>Construction of 137 check dams, 40 water tube wells and three watch towers in hot spot areas to address peatland fires</li> </ul>
	Solid waste management	<ul style="list-style-type: none"> <li>Household recycling rate increased from 5% in 2010 to 10.5% in 2012 and expected to increase to 15% in 2015</li> <li>As of 2013, GHGs emission reduction through paper recycling was four million tCO<sub>2</sub>eq</li> <li>159 companies, with a total capacity of more than 24,000 metric tonnes per month, were licensed to recover electrical and electronic waste (e-waste)</li> <li>The National Biomass Strategy 2020 was formulated in 2013 to promote the use of agricultural biomass waste for high value products</li> </ul>
	Adoption of Green Building Index for construction	<ul style="list-style-type: none"> <li>As of 2013, GHGs emission reduction was 475,746 tCO<sub>2</sub>eq</li> </ul>
	Utilisation of compressed natural gas	<ul style="list-style-type: none"> <li>As of 2013, GHGs emission reduction was 136,415 tCO<sub>2</sub>eq</li> </ul>
	Public transport usage - Light Rail Transit and Monorail	<ul style="list-style-type: none"> <li>As of 2013, GHGs emission reduction was 424,901 tCO<sub>2</sub>eq</li> </ul>
	Hybrid vehicle usage	<ul style="list-style-type: none"> <li>As of 2013, GHGs emission reduction was 61,417 tCO<sub>2</sub>eq</li> </ul>
	Methane avoidance from empty palm oil fruit bunches	<ul style="list-style-type: none"> <li>As of 2013, GHGs emission reduction was 33.1 million tCO<sub>2</sub>eq</li> </ul>
Development of green products	<ul style="list-style-type: none"> <li>73 eco-label licences issued to companies producing green products</li> </ul>	

Focus area	Initiative	Achievement
<b>Mitigation (contd.)</b>	Roadmaps and guidelines to support low carbon development	<ul style="list-style-type: none"> <li>▪ Low Carbon City Framework developed in 2011</li> <li>▪ Green Neighbourhood Guidelines developed in 2011</li> <li>▪ A Roadmap of Carbon Intensity Reduction in Malaysia developed in 2013</li> <li>▪ Green Technology Master Plan developed in 2015</li> </ul>
	Communications strategy	<ul style="list-style-type: none"> <li>▪ National Sustainable Consumption and Production (SCP) web portal developed in 2014 to enhance knowledge and capacity towards green growth</li> </ul>
	Obligation to the United Nations Framework Convention on Climate Change (UNFCCC)	<ul style="list-style-type: none"> <li>▪ Submission of the Second National Communication to the UNFCCC in 2011</li> <li>▪ Submission of Biennial Update Report by end of 2015</li> </ul>
	Domestic reporting mechanisms	<ul style="list-style-type: none"> <li>▪ By January 2015, 26 companies volunteered to report their GHGs emissions through the MyCarbon Reporting Programme, launched in 2013</li> </ul>
<b>Adaptation</b>	Flood mitigation programmes	<ul style="list-style-type: none"> <li>▪ Development of 34 hazard maps to facilitate disaster prevention and development planning in major flood-prone areas</li> <li>▪ Implementation of 194 flood mitigation projects, shielded nearly one million people from floods</li> </ul>
	Coastal erosion prevention programme	<ul style="list-style-type: none"> <li>▪ 24.4 kilometres of coastal areas in Johor, Kelantan, Pulau Pinang, Sabah, Sarawak, Selangor and Terengganu were rehabilitated</li> </ul>
	New paddy variant	<ul style="list-style-type: none"> <li>▪ New aerobic paddy variant (MRIA1) launched in 2013 - a paddy variant resistant to heat and able to be planted in areas with poor water supply</li> </ul>
<b>Conservation</b>	Rehabilitation and reforestation programme	<ul style="list-style-type: none"> <li>▪ Increase in forest cover from 56.4% in 2010 to 61.0% in 2014</li> <li>▪ 53 million trees planted contributing to conservation of biodiversity</li> <li>▪ 2,509 hectares of mangroves and other suitable species planted for coastal protection</li> </ul>
	Integrated Water Resources Management	<ul style="list-style-type: none"> <li>▪ Improved water quality in five rivers, namely Sungai Petani, Kedah; Sungai Galing, Pahang; Sungai Pinang, Pulau Pinang; Sungai Penchala, Selangor; and Sungai Hiliran, Terengganu</li> <li>▪ Construction of a water tunnel to transfer raw water from Pahang to Selangor to address water shortages in the Klang Valley</li> <li>▪ Formulation of the National Water Resources Policy in 2012 to address demand for water in all sectors in terms of quantity and quality</li> </ul>
	Inventory of flora	<ul style="list-style-type: none"> <li>▪ Documentation and inventory of 10% of 15,000 flowering tree species in Malaysia completed</li> </ul>
<b>Governance of natural resources</b>	Management of protected areas	<ul style="list-style-type: none"> <li>▪ Gazettement of 23,264 hectares of forest as Permanent Reserved Forest under the Central Forest Spine initiative</li> <li>▪ Revision of the National Policy on Biodiversity Policy 1998 in line with international biodiversity targets</li> <li>▪ Development of management plans for marine parks in Pulau Sibul-Pulau Tinggi, Johor; Pulau Tioman, Pahang; and Pulau Redang, Terengganu</li> <li>▪ Certification of eight Forest Management Units in Peninsular Malaysia covering 4.6 million hectares; two in Sabah covering 927,563 hectares; and one in Sarawak covering 88,000 hectares</li> <li>▪ Crocker Range Park in Sabah listed as Man and Biosphere Reserves by UNESCO in 2014</li> </ul>
	Enforcement	<ul style="list-style-type: none"> <li>▪ Commencement of the 1Malaysia Biodiversity Enforcement Operation Network involving multiple enforcement agencies</li> </ul>
	Financing mechanisms	<ul style="list-style-type: none"> <li>▪ Establishment of the National Conservation Trust Fund for Natural Resources in 2014 dedicated for conservation efforts</li> <li>▪ Completion of a baseline study on Payment for Ecosystem Services in 2012</li> </ul>

# Glossary

1Gov*Net	1Government Network	ASO	Analogue Switch Off
1M4U	1Malaysia For Youth	ASW	Amanah Saham Wawasan
1MASTER	1Malaysia Skills Training and Enhancement for the Rakyat	ATM	Angkatan Tentera Malaysia
1MOCC	1Malaysia One Call Centre	B40	Bottom 40%
3R	Reuse, Reduce and Recycle	B40 households	Bottom 40% households income group
ABM	Akademi Binaan Malaysia	B5	5% bio-diesel blending
ABS Bill	Bill of Access to Biological Resources and Benefits Sharing	B7	7% bio-diesel blending
ACCA	Association of Chartered Certified Accountants	BBGP	Broadband for General Population
ADAMAS	Anti-Doping Agency of Malaysia	BDA	Big Data Analytics
ADSL	Asymmetric Digital Subscriber Line	BE	Business Enterprise
AEC	ASEAN Economic Community	BEC	Bumiputera Economic Community
AES	Automatic Enforcement System	BERD	Research and development by business enterprises
AHB	Amanah Hartanah Bumiputera	BETP	Border Economic Transformation Programme
AIGDC	Academia – Industry Graduate Development Centre	BIM	Building Information Modelling
AIM	Amanah Ikhtiar Malaysia	BLESS	Business Licensing Electronic Support System
APEL	Accreditation of Prior Experiential Learning	boe	barrels of oil equivalent
APF	Access Pricing Framework	BOP	Balance of payments
APSS	Advanced Passenger Screening System	bpd	barrels per day
AS1M	Amanah Saham 1Malaysia	BPKP	Bahagian Pengurusan Kemasukan Pelajar
ASB	Amanah Saham Bumiputera	BR1M	Bantuan Rakyat 1Malaysia
ASB2	Amanah Saham Bumiputera 2	BSN	Bank Simpanan Nasional
ASD	Alternative Service Delivery	CBO	Community Based Organisations
ASEAN	Association of Southeast Asian Nations		

CCTV	Closed circuit television	DOE	Department of Environment
CD	Communicable diseases	DOSM	Department of Statistics Malaysia
CE	Compensation of Employees	DPPTOA	Dasar Pelupusan dan Pemilikan Tanah Orang Asli
CeIO	Certified Integrity Officers	DRM	Disaster risk management
CEPA	Communications, education and public awareness	DSD	Department of Skills Development
CGPA	Cumulative Grade Point Average	DSM	Demand side management
CI	Creativity Index	DTF	Delivery Task Force
CIAST	Centre for Instructor and Advanced Skill Training	DTT	Digital Terrestrial Television
CIDB	Construction Industry Development Board	E&E	Electrical & electronics
CIP	Corporate Integrity Pledge	ECCE	Early childhood care and education
CITP	Construction Industry Transformation Programme	ECERDC	East Coast Economic Region Development Council
CNG	Compressed natural gas	EDER	East Coast Economic Region
CO <sub>2</sub>	Carbon dioxide	EDO	entrepreneur development organisation
COE	Centres of Excellence	EEDP	ECER Entrepreneurship Development Programme
COMBAT	Komuniti Bebas Aedes & Tuberculosis	EEVs	Energy efficient vehicles
COMBI	Communication for Behavioural Impact Programme	EGDI	e-Government Development Index
CPTED	Crime Prevention Through Environmental Design	EIA	Environmental Impact Assessment
CREST	Collaborative Research in Engineering, Science & Technology	EKUINAS	Ekuiti Nasional Berhad
CRP	Community Rehabilitation Programme	EMS	Environmental Management Systems
DCA	Department of Civil Aviation	EPU	Economic Planning Unit
DDI	Domestic Direct Investment	ERL	Express Rail Link
DID	Department of Irrigation and Drainage Malaysia	EToU	Enhanced Time of Use
DMZ	District metering zones	EU	European Union

EURO	European emission standard for motor vehicle	GHGs	Greenhouse gases
EURO 4M	Malaysian Emission Standards equivalent to European Emission Standards 4	GIGIH	Program Protégé Gigih
EURO 5	European Emission Standards 5	GII	Global Innovation Index
e-waste	Electrical and electronic waste	GKL	Greater Kuala Lumpur
F&B	Food and beverages	GKL/KV	Greater Kuala Lumpur/Klang Valley
FAMA	Federal Agriculture Marketing Authority	GLC	Government-linked company
FBO	Faith based organisation	GLIC	Government-linked investment company
FDI	Foreign direct investment	GMBO	Get Malaysia Business Online
FELCRA	Federal Land Consolidation and Rehabilitation Authority	GMOs	Genetically modified organisms
FELDA	Federal Land Development Authority	GMP	Good manufacturing practices
FIT	Feed-in Tariff	GNI	Gross National Income
FRIM	Forest Research Institute Malaysia	GoEx	Going Export
FT	Federal Territory	GOS	Gross Operating Surplus
FTA	Free Trade Agreement	GPS	Global Positioning System
FTE	Full Time Equivalent	GreenPASS	Green Performance Assesment System in Construction
FWT	Future Workers Training	GRI	Government Research Institute
GCC	General consumer code	GST	Goods and services tax
GCI	Global Competitiveness Index	GTFS	Green Technology Financing Scheme
GDC	Government Data Centre	GTP	Government Transformation Programme
GDP	Gross Domestic Product	GWh	gigawatt hours
GERD	Gross expenditure on research and development	GWh	Gigawatt hour
GGP	Government green procurement	HACCP	Hazard Analysis & Critical Control Points
		HCFC	Hydrochlorofluorocarbon

HDC	Halal Development Corporation	IMPC	Institute of Malaysian Plantation and Commodities
HHI	Hirschmann-Herfindahl Index	IMT-GT	Indonesia-Malaysia-Thailand Growth Triangle
HOTS	Higher Order Thinking Skills	INSEP	Industrial Skills Enhancement Programme
HPS	High Performing Schools	INSKEN	National Institute of Entrepreneurship
HRDF	Human Resources Development Fund	INTAN	Institut Tadbiran Awam Negara or National Institute of Public Administration
HSBB	High Speed Broadband	IoT	internet of things
HSE	Health, safety and environment	IP	Intellectual Property
IBR	Incentive Based Regulation	IPP	Independent Power Producer
IBS	Industrialised Building System	ISC	Industry Skills Committee
ICCO	Incentive Coordination and Collaboration Office	ISO	International Organisation for Standardisation
ICoE	Industry Centres of Excellence	ITE	Institutes of Teacher Education
ICPT	Imbalance Cost Pass-Through	ITU	International Telecommunication Union
ICT	Information and Communications Technology	IWG	Industry Working Groups
IE	industrial estate	JKKK/JKKKP	Jawatankuasa Kemajuan dan Keselamatan Kampung
IHE	Institution of Higher Education	JKM	Jabatan Kebajikan Masyarakat
IHL	Institutes of Higher Learning	JKT	Jabatan Kerajaan Tempatan
ILB	Industry-Lead Bodies	JPDC	Johor Petroleum Development Corporation
ILCs	Indigenous and local communities	JPJJK	Jabatan Pencegahan Jenayah dan Keselamatan Komuniti
ILMIA	Institute of Labour Market Information and Analysis	JPM	Jabatan Penjara Malaysia
ILO	International Labour Organisation	JPN	Jabatan Pendidikan Negeri or State Education Department
IM	Iskandar Malaysia	JPNIN	Department of National Unity and Integration
iM4U	1Malaysia For Youth	KAA	Kelas Aliran Agama
IMD	International Institute for Management Development		

KEJARA	Sistem Merit Kesalahan Jalan Raya or Demerit Points System	LPPKN	National Population and Family Development Board
KeTTHA	Kementerian Tenaga, Teknologi Hijau dan Air (Ministry of Energy, Green Technology and Water)	LRT	Light Rail Transit
KL	Kuala Lumpur	LTFMP	Logistics and Trade Facilitation Master Plan (LTFMP)
KLIA	Kuala Lumpur International Airport	M&E	Machinery & equipment
KLIA2	Kuala Lumpur International Airport 2	M40 households	Middle 40% households income group
km	kilometre	MaGIC	Malaysian Global Innovation and Creativity Centre
KOSPEN	Program Komuniti Sihat Perkasa Negara	MAI	Malaysian Automotive Institute
KPI	Key performance indicator	MAMPU	Modernisation and Management Planning Unit
KPKT	Ministry of Urban Wellbeing, Housing and Local Government	MARA	Majlis Amanah Rakyat
KR1M	Kedai Rakyat 1Malaysia	MARDI	Malaysian Agricultural Research and Development Institute
KTMB	Keretapi Tanah Melayu Berhad	MATRADE	Malaysia External Trade Development Corporation
kV	kilovolt	MBOT	Malaysia Board of Technologists
KVMRT	Klang Valley Mass Rapid Transit	Mbps	Megabits per second
kW	kilowatt	MCMC	Malaysian Communications and Multimedia Commission
KWAPM	Kumpulan Wang Amanah Pelajar Miskin	MDeC	Multimedia Development Corporation
LFA	Logical Framework Approach	MEB	The Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education)
LGM	Malaysian Rubber Board (8-25)	MEB (HE)	Malaysia Education Blueprint 2015-2025 (Higher Education)
LINUS	Literacy and Numeracy Screening	MEPS	Minimum Energy Performance Standards
LKIM	Fisheries Development Authority of Malaysia	MESEJ	Agropolitan, Ladang Masyarakat, Mini Estet Sejahtera
LLL	Lifelong Learning	MESI	Malaysian Electricity Supply Industry
LMIDW	Labour Market Information Data Warehouse	MFP	Multi-Factor Productivity
LNG	liquefied natural gas		

MIDA	Malaysian Investment Development Authority	MPOB	Malaysian Palm Oil Board (8-25)
Mini-RTC	Mini Rural Transformation Centre	MPPN	Majlis Penasihat Petroleum Negara
MITI	Ministry of International Trade and Industry	MQA	Malaysian Qualifications Agency
MKN	Majlis Keselamatan Negara (National Security Council)	MQF	Malaysian Qualification Framework
MKRA	Ministerial Key Result Area	MRA	Mutual Recognition Agreement
MLD	Million litres per day	MRIA 1	new aerobic paddy variant
MMP	Malaysian Meister Programme	MRO	Maintenance, repair and overhaul
MMS	Multimedia messaging services	MRT	Mass rapid transit
mmscfd	million standard cubic feet per day	MSPO	Malaysian Sustainable Palm Oil
MMT	Methadone Maintenance Therapy	MTDC	Malaysia Technology Development Corporation
MNC	Multi-national company	MTJDA	Malaysia-Thailand Joint Development Area
Mobile CTC	Mobile Community Transformation Centre	mtpa	million tonnes per annum
MoE	Ministry of Education	MUET	Malaysia University English Test
MoEGTW	Ministry of Energy, Green Technology and Water	MW	Megawatts
MoF	Ministry of Finance	MWI	Malaysian Wellbeing Index
MoHR	Ministry of Human Resources	MyBM	MyBeautiful Malaysia
MoNRE	Ministry of Natural Resources and Environment	MyCOID	My Corporate Identity
MOOCs	Massive Open Online Courses	MyGAP	Malaysian Good Agricultural Practices
MoT	Ministry of Transport	MyHome	Youth Housing Scheme and Private Affordable Ownership Housing Scheme
MPC	Malaysia Productivity Corporation	MySpeKK	Sistem Penarafan Kolej Komuniti
MPI	Multidimensional poverty index	MyWIN	Women Innovation Academy
MPIC	Ministry of Plantation Industries and Commodities	NAP	National Automotive Policy

NATC	National Agricultural Training Council	OBA	Outcome-based approach
NBOS	National Blue Ocean Strategy	OBB	Outcome-based budgeting
NCD	Non-communicable diseases	OECD	Organisation for Economic Co-operation and Development
NCER	Northern Corridor Economic Region	OGSI	Oil and gas services industry
NCR	Native Customary Rights	ORRR	Overall Resource Replenishment Ratio
NDTS	National Dual Training System	OSC	One Stop Centre
NEC	National Export Council	PAAB	Perbadanan Aset Air Berhad
NEM	Net energy metering	PADU	Education Performance and Delivery Unit
NFPEs	non-financial public enterprises	PAP	Pre-approved plans
NGO	Non-governmental organisation	PBR	Program Bantuan Rumah
NHCDC	National Human Capital Development Council	PCS	Port Community System
NKEA	National Key Economic Areas	PDRM	The Royal Malaysian Police
NKRA	National Key Result Areas	PE	Population Equivalent
NOSS	National Occupations Skills Standards	PEMANDU	The Performance Management and Delivery Unit
NPC	National Productivity Council	PEMUDAH	Pasukan Petugas Khas Pemudahcara Perniagaan or Special Task Force to Facilitate Business
NPDIR	National Policy on the Development and Implementation of Regulations	PERHILITAN	Department of Wildlife and National Parks Peninsular Malaysia
NRW	Non-Revenue Water	PETRONAS	Petroleum Nasional Berhad
NSC	National Security Council	PHB	Pelaburan Hartanah Berhad
NSRC	National Science Research Council	PhD	Doctor of Philosophy
NSW	National Single Window	PIC	Pengerang Integrated Complex
NUCC	National Unity Consultative Council	PIPC	Pengerang Integrated Petroleum Complex
NWI	National Wage Index	PISA	Programme for International Student Assessment

PlatCOM	PlatCOM Ventures Sdn Bhd	PV	Photovoltaic
PLGDP	Pusat Latihan Guru dalam Perkhidmatan	PVR	Police Volunteer Reserve
PLI	Poverty Line Income	PWD	Persons with disabilities
PNB	Permodalan Nasional Berhad	QoS	Quality of Service
PolyRate	Polytechnic Rating System	QS	Quacquarelli Symonds
PPA	Power Purchase Agreement	R&D	Research and development
PPA1M	1Malaysia Civil Servants Housing Programme (PPA1M)	R&D&C	Research, development and commercialisation
PPIC	PETRONAS Petroleum Integrated Complex	R&D&C&I	Research, development, commercialisation and innovation
PPR	Program Perumahan Rakyat	RAPAT	Rondaan Awam Polis dan Anggota Tentera
PPRN	Public-Private Research Network	RAPID	Refinery and Petrochemicals Integrated Development
PR1MA	Perumahan Rakyat 1Malaysia	RAS	Rural air service
PRC	People's Republic of China	RBI	Rural Basic Infrastructure
PRDM	Polis DiRaja Malaysia	RDA	Regional Development Authority
Program 3K	Program Kepimpinan, Kemahiran dan Keusahawanan	RDI	Road Development Index
PSC	Public sector comparator	RE	Renewable energy
PSD	Public Service Department	REDD	Reducing Emissions from Deforestation and Forest Degradation
PSN	Pusat Data Negara	REIT	Real estate investment trust
PSO	Public Service Obligation	RELA	People Volunteer Corps or Ikatan Relawan Rakyat Malaysia
PTA	Parent-Teacher Association	RGT	Re-gasification Terminal
PTP	Port of Tanjung Pelepas	RGT-1	Re-gasification Terminal (RGT-1)
PTPTN	Perbadanan Tabung Pendidikan Tinggi Nasional or Higher Education Fund Foundation	RIA	Regulatory Impact Assessment
PUNB	Perbadanan Usahawan Nasional Berhad	RISDA	Rubber Industry Smallholders Development Authority (8-26)
		RISE	Research Incentive Scheme for Enterprise

RM	Ringgit Malaysia	SEF	Services Export Fund
RMA	Research management agency	SESB	Sabah Electricity Sdn Bhd
RMR1M	Rumah Mesra Rakyat 1Malaysia	SIA	Social Impact Assessment
RMT	Rancangan Makanan Tambahan	SIP	SME Investment Partner
RON	Research Octane Number	SIRIM	Standards and Industrial Research Institute of Malaysia
RPL	Recognition of Prior Learning	SJJB	Skim Jejak Jaya Bumiputera
RPS	Rancangan Penempatan Semula	SKK1M	Skim Kemahiran dan Kerjaya 1Malaysia
RSOG	Razak School of Government	SKM	Suruhanjaya Koperasi Malaysia
RT	Refrigeration Tonnes	SLA	Service Level Agreement
RTC	Rural Transformation Centre	SME	Small and medium enterprises
RUMAWIP	Rumah Wilayah Persekutuan	SME Corp	SME Corporation Malaysia
SABK	Sekolah Agama Bantuan Kerajaan	SMOKU	Sistem Maklumat Orang Kurang Upaya
SAIDI	System Average Interruption Duration Index	SMS	Short messaging system
SAVE	Sustainability Achieved via Energy Efficiency	SPAN	Suruhanjaya Perkhidmatan Air Negara or National Water Services Commission
SBST	Stage Bus Service Transformation	SPKPN	Sistem Profil Kampung Peringkat Nasional
SCORE	Sarawak Corridor of Renewable Energy	SPM	Sijil Pelajaran Malaysia
SCP	Sustainable Consumption and Production	SPPII	Sistem Pemantauan Projek II or Project Monitoring System
SDC	Sabah Development Corridor	SRS	Voluntary Patrolling Scheme
SDF	Skills Development Fund	SSGP	Sabah-Sarawak Gas Pipeline
SEA	Southeast Asia	SSN	Social Safety Net
SEB	Sarawak Energy Berhad	SSP	Police Volunteer Reserve
SEDA	Sustainable Energy Development Authority	Steinbeis	Steinbeis Malaysia Foundation
SEDIA	Sabah Economic Development and Investment Authority		

STEM	Science, technology, engineering and mathematics	UCSF	University College Sabah Foundation
STOL	Short take-off and landing	UN	United Nations
STP	Sewerage Treatment Plant	UNDP	United Nations Development Programme
SUBB	Sub-Urban Broadband	UNESCO	United Nations Educational, Scientific and Cultural Organization
SWCorp	Solid Waste Management and Public Cleansing Corporation	UNFCCC	United Nations Framework Convention on Climate Change
TASKA	Taman Asuhan Kanak-kanak	UPEB	Unit Pemerkasaan Ekonomi Bumiputera
Tbps	Terabytes per second	US	United States of America
tcf	trillion cubic feet	USD	United States Dollar
tCO <sup>2</sup> eq	tonnes of carbon dioxide equivalent	UTC	Urban Transformation Centre
TCP	Technology Commercialisation Platform	VIC	Vocational Instructor Certifications
TEKUN	Tabung Ekonomi Kumpulan Usaha Niaga	VLE	Virtual learning environment
TERAJU	Unit Peneraju Agenda Bumiputera	VM	Value management
TEU	Twenty-footer equivalent unit	VSAT	Very Small Aperture Terminal
TFP	Total Factor Productivity	WCY	World Competitiveness Yearbook
TI	Transparency International	WJP	World Justice Project Rule of Law Index
TIMMS	Trends in Mathematics and Science Study	WSIA	Water Services Industry Act
TKPM	Permanent Food Production Zones	WTP	Water Treatment Plant
TNB	Tenaga Nasional Berhad	WTTP	Workers Technical Transformation Programme
TOD	Transit-oriented development	YIM	Yayasan Inovasi Malaysia
TP1M	Tabung Perumahan 1Malaysia	YPPB	Yayasan Peneraju Pendidikan Bumiputera
TVET	Technical and vocational education and training		
U3A	University of The Third Age		
UBBL	Uniform Building By-Laws		

# Lists of Strategy Papers

<b>Chapter 2</b> <b>Strengthening macroeconomic resilience for sustained growth</b>	Strategy Paper 1: Unlocking the potential of productivity
<b>Chapter 3</b> <b>Enhancing inclusiveness towards an equitable society</b>	Strategy Paper 2: Elevating B40 households towards a middle class society Strategy Paper 3: Enhancing Bumiputera Economic Community (BEC) opportunities to increase wealth ownership Strategy Paper 4: Transforming rural areas to uplift wellbeing of rural communities
<b>Chapter 4</b> <b>Improving wellbeing for all</b>	Strategy Paper 5: Achieving universal access to quality healthcare Strategy Paper 6: Providing adequate and quality affordable housing Strategy Paper 7: Creating safer living space and secure environment
<b>Chapter 5</b> <b>Accelerating human capital development for an advanced nation</b>	Strategy Paper 8: Labour market for an advanced nation Strategy Paper 9: Transforming technical and vocational education and training to meet industry demand Strategy Paper 10: Transforming education system
<b>Chapter 6</b> <b>Pursuing green growth for sustainability and resilience</b>	Strategy Paper 11: Climate resilient development Strategy Paper 12: Growth through sustainable use of natural resources
<b>Chapter 7</b> <b>Strengthening infrastructure to support economic expansion</b>	Strategy Paper 13: Providing seamless transportation system Strategy Paper 14: Develop integrated logistics and efficient trade facilitation mechanism Strategy Paper 15: Driving ICT in the knowledge economy Strategy Paper 16: Ensuring quality and efficient water services industry Strategy Paper 17: Sustainable usage of energy to support growth
<b>Chapter 8</b> <b>Re-engineering economic growth for greater prosperity</b>	Strategy Paper 18: Transforming services sector Strategy Paper 19: Energising manufacturing sector Strategy Paper 20: Driving modernisation in agro-food Strategy Paper 21: Translating innovation to wealth

## Description of cover icons

The Eleventh Malaysia Plan is anchored on the *rakyat*. The multi-colored people icons personify the multi-faceted nature that makes Malaysia unique. The six icons represent the six strategic thrusts of the Eleventh Malaysia Plan.

### Enhancing inclusiveness towards an equitable society



Inclusivity is a key principle in Malaysia's development agenda to ensure that the fruits of growth and development are shared across all citizens regardless of ethnicity, socio-economic status and geographic location. The icon shows that uplifting the wellbeing of the *rakyat* will enable them to move forward hand-in-hand towards the shared ambition of Vision 2020.

### Improving wellbeing for all



The holistic development in the physical, psychological, social, and spiritual sense is core to the quality of life and positive wellbeing of Malaysians. The icon represents upward mobility and productivity of individual households that will strengthen social cohesion and national unity.

### Accelerating human capital development for an advanced nation



Human capital development is an essential enabler for Malaysia to achieve an advanced nation. The icon represents the cultivation of both the hearts and minds of the *rakyat* to support the transition towards a knowledge economy that is competitive on a global scale.

### Pursuing green growth for sustainability and resilience



Green growth is essential for the continued competitiveness and resilience of the nation. This represents a paradigm shift that challenges the conservative view of "grow first and clean up later" towards one where sustainability is core to continued development that safeguards the future. The icon of the new leaf illustrates that resilient growth is anchored upon a closer connection to the land and environment.

### Strengthening infrastructure to support economic expansion



Infrastructure development is the foundation of social inclusion, economic expansion and growth. It ensures that the *rakyat* has access to essential amenities and services such as transport, communications, electricity and clean water. The icon illustrates the critical role of infrastructure as an integrator for the country that will drive seamless connectivity of people and goods.

### Re-engineering growth for greater prosperity



As Malaysia transitions towards an advanced economy, the structure of the economy will shift towards knowledge-intensive activities across all sectors. The icon represents the various stakeholders across the public and private sectors playing their part to re-engineer the ecosystem as a whole to accelerate economic growth towards greater prosperity for all.

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