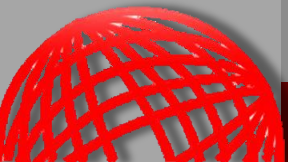




10 Proposed Pillar Strategies to Transform Water Sector in Malaysia

20 June 2019

**Ministry of
Economic
Affairs**

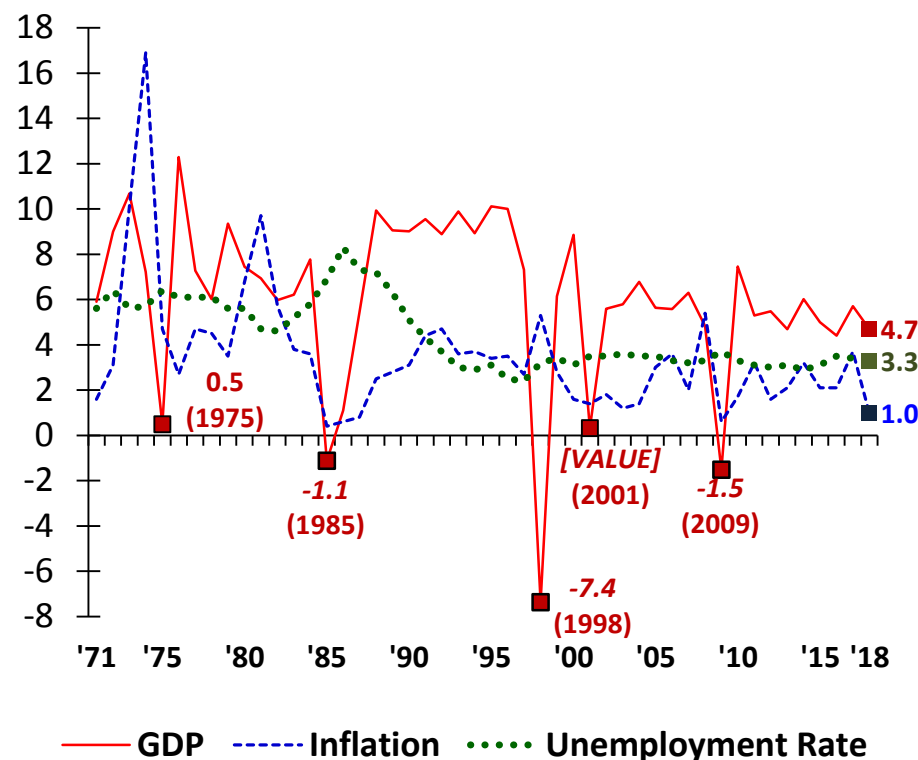


Content

1. Economic vs socioeconomic overview of Malaysia
2. Happiness Level and Megatrends
3. Rancangan Malaysia Ke-12
4. 10 Pillar Strategies for Water Sector Transformation

At a glance : Malaysia recorded rapid economic growth since the 1970s

Real GDP, Inflation (% p.a.),
Unemployment (%)



% p.a.	2017				2018				'19
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
GDP	5.5	5.6	6.1	5.7	5.3	4.5	4.4	4.7	4.5
	5.7				4.7				

At macro level, economic fundamentals remained intact ...

- ✓ GDP growth for 1971-2018 was among the highest in the world
- ✓ Low and stable inflation rate, full employment since 1992
- ✓ Absolute poverty almost eradicated at 0.4% of households in 2016
- ✓ Still one of the top destinations for FDI
- ✓ Considered as a competitive nation : 25th ranking out of 140 nations in the Global Competitiveness Report, 2018

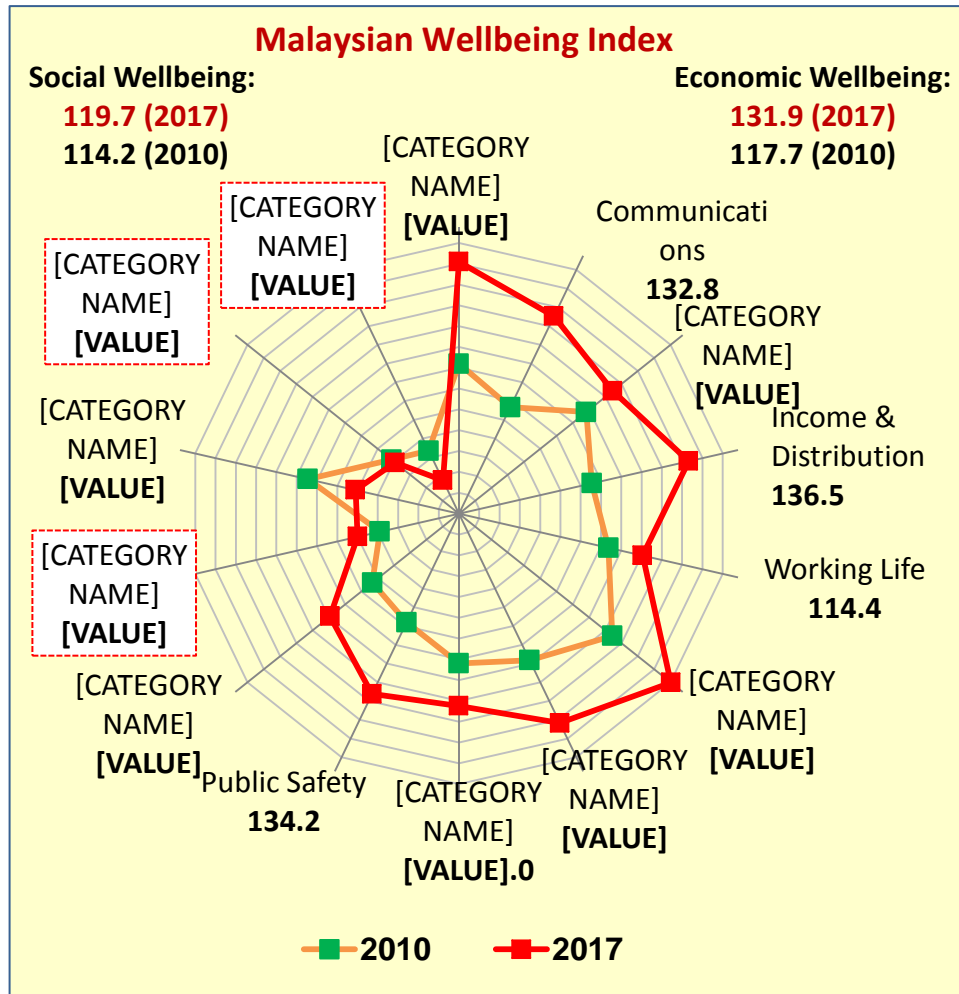
- ✓ **Malaysia, 1971-2018**
 - Malaysia recorded **6.1%** in spite of facing 5 economic crises since 1970
 - **Malaysia has been able to rebound quickly after each crisis due to its economic resilience**

- GDP, 1971-2018 (% p.a.)**
- World: 3.1
 - Advance: 2.6
 - Developing: 2.9
 - Emerging market: 4.8

Source : IHS

... but social wellbeing is lagging behind economic wellbeing

Deteriorating social wellbeing, particularly for family institution, health and environment



• Family

- Aggravating factors include increased divorce rates, domestic violence and juvenile crimes, aggravated by increasing household debt level

• Health

- Improved life expectancy, declining maternal mortality rate and stagnating non-communicable disease cases
- But affected by increased infant mortality rate and unhealthy modern lifestyle brought by stress, poor eating habits, smoking and physical inactivity

• Environment

- Deteriorated mainly due to fall in air pollution index, water quality index, while quantity of scheduled waste generated increased

Source : Malaysian Wellbeing Index, MEA

Wellbeing can now be measured through level of happiness of the citizens...

10 HAPPIEST COUNTRIES IN THE WORLD



Source: World Happiness Report 2019, United Nations Sustainable Development Solutions Network

GLOBAL TRENDS

PRIMARY FORCES

Hyper Globalisation

- Emerging economy powerhouses
- Rise of digital platforms

Technology

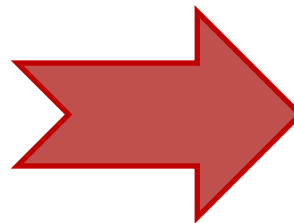
- Digital transformation
- Exponential growth in computing power
- IoT, AI

Demographics patterns

- Widespread aging – fewer births and longer life spans
- Urbanization

Environment

- **Food and water scarcity**
- **Climate change**



MEGATRENDS

Human augmentation

Adaptive regulation

Future of work

Global knowledge society

Dynamic technology and innovation

Scarcity of resources

Source: EY (2018), Roland Berger (2017) and Bernard Marr (2017)

MEGA TRENDS IN THE HORIZON

Major forces shaping the future

Globalisation



World economic centre of gravity continues to shift towards Asia - Asia Pacific share of global exports expected to **NEARLY DOUBLE** to 46% in 2050

Global GDP growth projected at average 2.6% annually from 2019-2050

RISING Public Debt



By 2050, population aging will drive up health & pension spending
If current trends continue, global levels of net public debt are set to reach staggering

Economic Power Shift, Rise of East and South

Technology



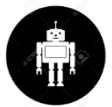
Half the world population will have access to the internet by 2030



Big Data



Artificial Intelligence



New future for manufacturing / Advance Robotics



Cloud Computing



Advance Genomics

Social

In 2050 ...

16.7% of population is aged **65+**



Rapid urbanization
Most urban growth will take place in **Africa & Asia**



Rising group of middle income



Resources & Environment



60% ↑ in food production necessary



55% ↑ in water demand



Energy demand on the rise



RAPID CLIMATE CHANGE

50% ↑ in GHG emissions by 2050

10% biodiversity loss by 2050



The developing world will have to shoulder 75 – 80% of adaptation cost
(+3 - 4°C) 200m people could become permanently displaced due to rising sea levels, flooding & droughts



IN THE HORIZON

Major forces taking shape in the future **DOMESTIC** trends

Globalisation



Labour productivity increase to **RM192,000** by 2050



Potential revenue:
2020: RM9.5 bil
2040: RM80 bil

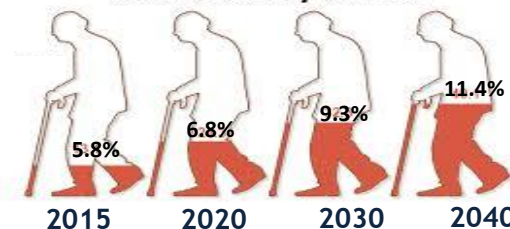
Social



Population will increase to **45 million** in 2050

Urbanisation will grow from **71%** in 2010 to **85%** in 2040
Rapid urbanisation

Ratio of elderly over 65



Aging population by **2021**



The rise of refugees/migrants

Technology

Automated economy: heavy on technology, light on labor



New types of jobs emerge

Demand for specialised skills

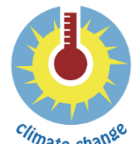
New type of society



Resources and Environment



GHG



Challenge: Decoupling the growth of economy from GHG emissions

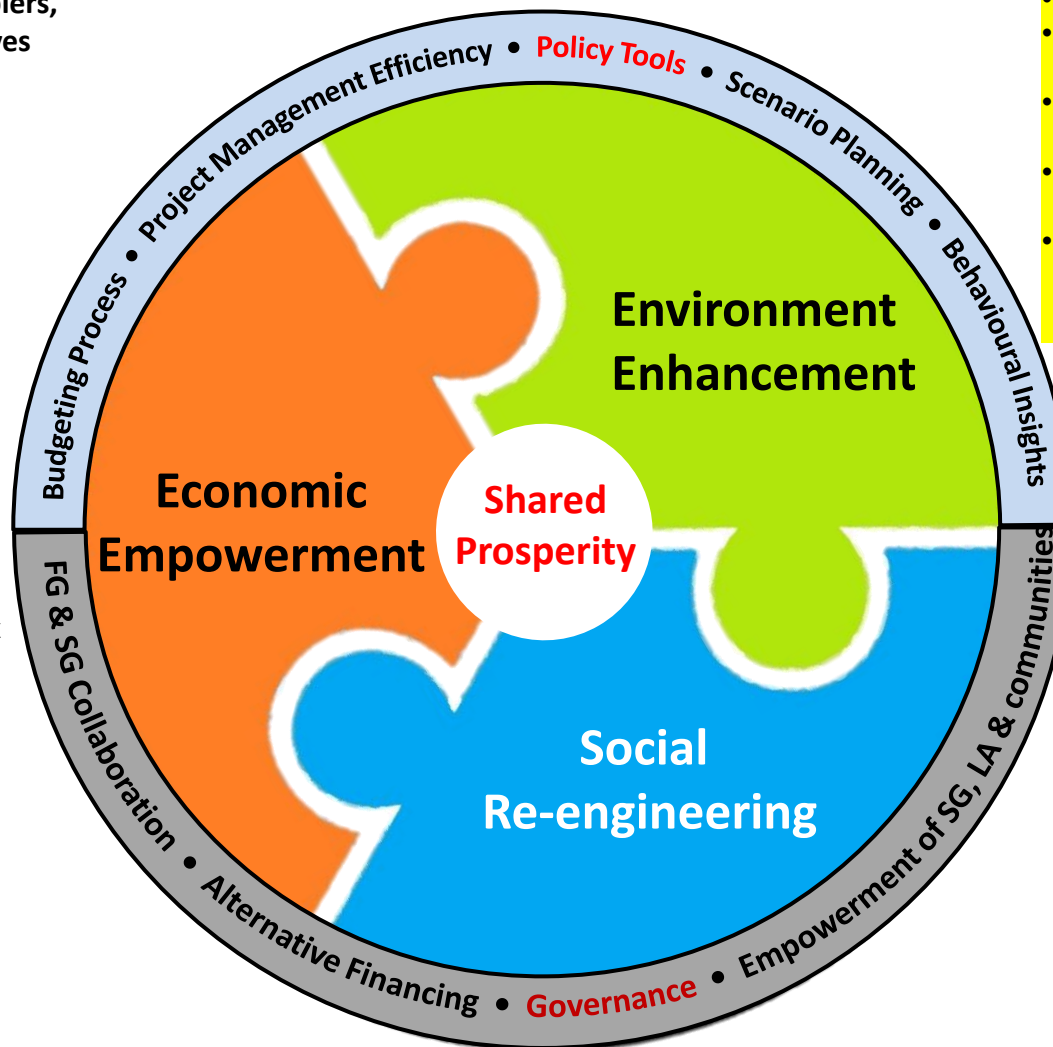
As Economy grows:
Natural resources consumed
Waste produced

Food Security challenges



1 Economic Empowerment : Growth drivers and enablers, ecosystem and imperatives

- **Drivers and enablers**
 - Digital economy
 - Target industries and services (aerospace etc)
 - Growth poles (cities)
 - Collaborative/sharing economy
 - Fourth Industrial Revolution
 - Sustainable energy
 - Greater regional balance
- **Ecosystem**
 - Infrastructure and transport connectivity
 - Progressive fiscal and tax structure
 - Human capital realignment
 - Governance/Regulatory framework
 - Federal-State-Local Authority re-engineering
- **Imperatives**
 - Raising innovation and productivity to next level
 - Boosting trade and private investment



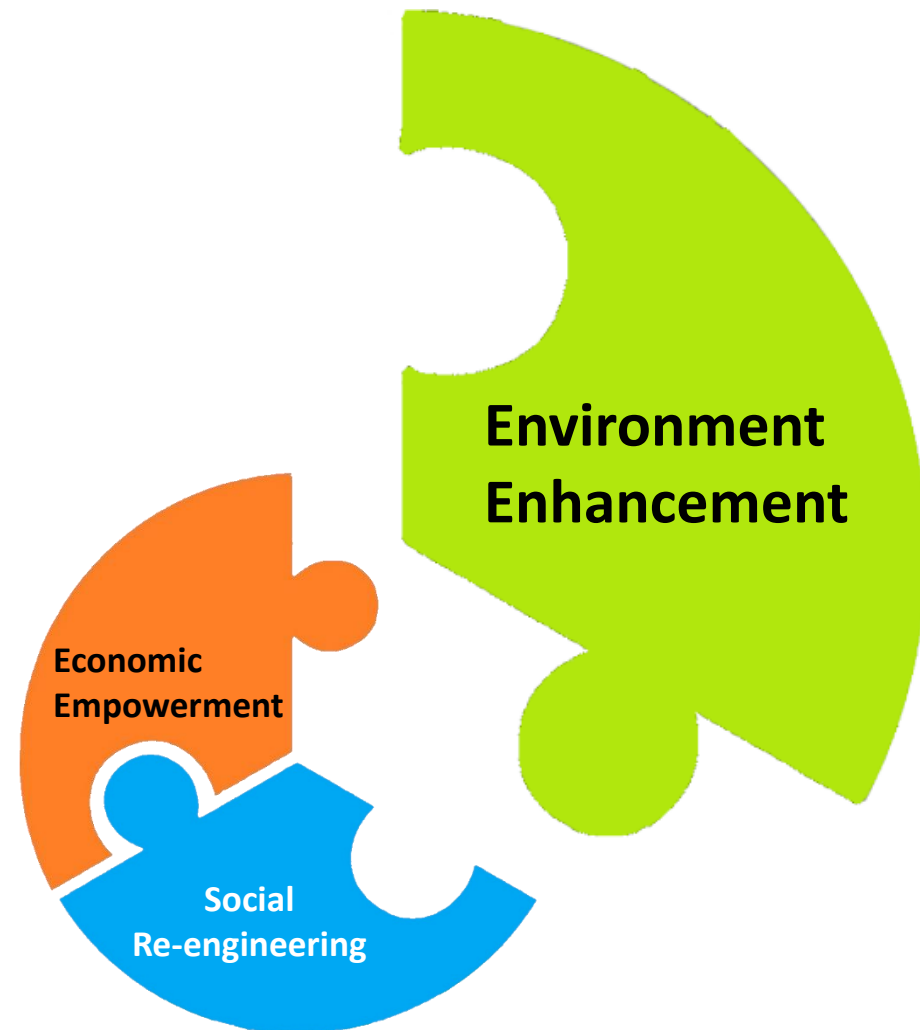
2 Environment Enhancement : Conservation and preservation

- Addressing climate change
- Management of green and blue economy
- Sustainable forest management
- Managing energy and water resources
- Circular economy – reducing waste and creating value from waste

3 Social Re-engineering : Enhancing social capital, inclusivity and social cohesion

- Greater income equality with focus on B40 and M40
- National unity and cohesion
- Social protection – disadvantaged, vulnerable and ageing society
- Independent Bumiputera
- Healthy and active lifestyle
- Affordable housing
- Secure nation

Operationalising Post-2020 Plan : Twelfth Malaysia Plan, 2021-2025



Environment Enhancement

1. Climate change mitigation and adaptation
2. Carbon Tax
3. Sustainable Consumption & Production
4. Disaster risk management
5. Disaster risk insurance scheme
6. Green technology
7. Green economy indicators
8. Biodiversity conservation
9. Renewable energy
10. Energy efficiency
- 11. Integrated water resource management**
12. Marine litter
13. Valuing ecosystem services
14. Waste as commodity

Feedback from stakeholders are solicited through Inter-Agency Planning Groups

To prepare for the Twelfth Malaysia Plan (2021-2025), MEA will establish

- **13 Inter-Agency Planning Groups (IAPGs)**
- 46 Technical Working Groups (TWGs)
- Minimum 180 Focus Groups (FGs)

IAPGs

1. Public sector reforms (BKE)
2. Inclusivity – youth, etc (BEQT, BPS)
3. Wellbeing & societal values (BPS)
4. Regional balance (BPW, BPSKA)
5. Human capital (BPMI)
6. Environment & natural resources (BEASSA, BINFRA)
7. Sustainable energy (BTE)
8. Agriculture (BTANI)
9. Manufacturing, science and technology, innovation and SMEs (BIPST)
10. Services sector (BIP)
11. Digital economy (BKE)
12. Transport and logistics (BINFRA, BIP)
13. Macroeconomics (BEM)

Tasks

- *Review progress of past policies and programmes*
- *Identify current issues and future challenges*
- *Draft new policies, strategies and programmes to achieve identified targets and outcome*
- *Draft strategy papers*

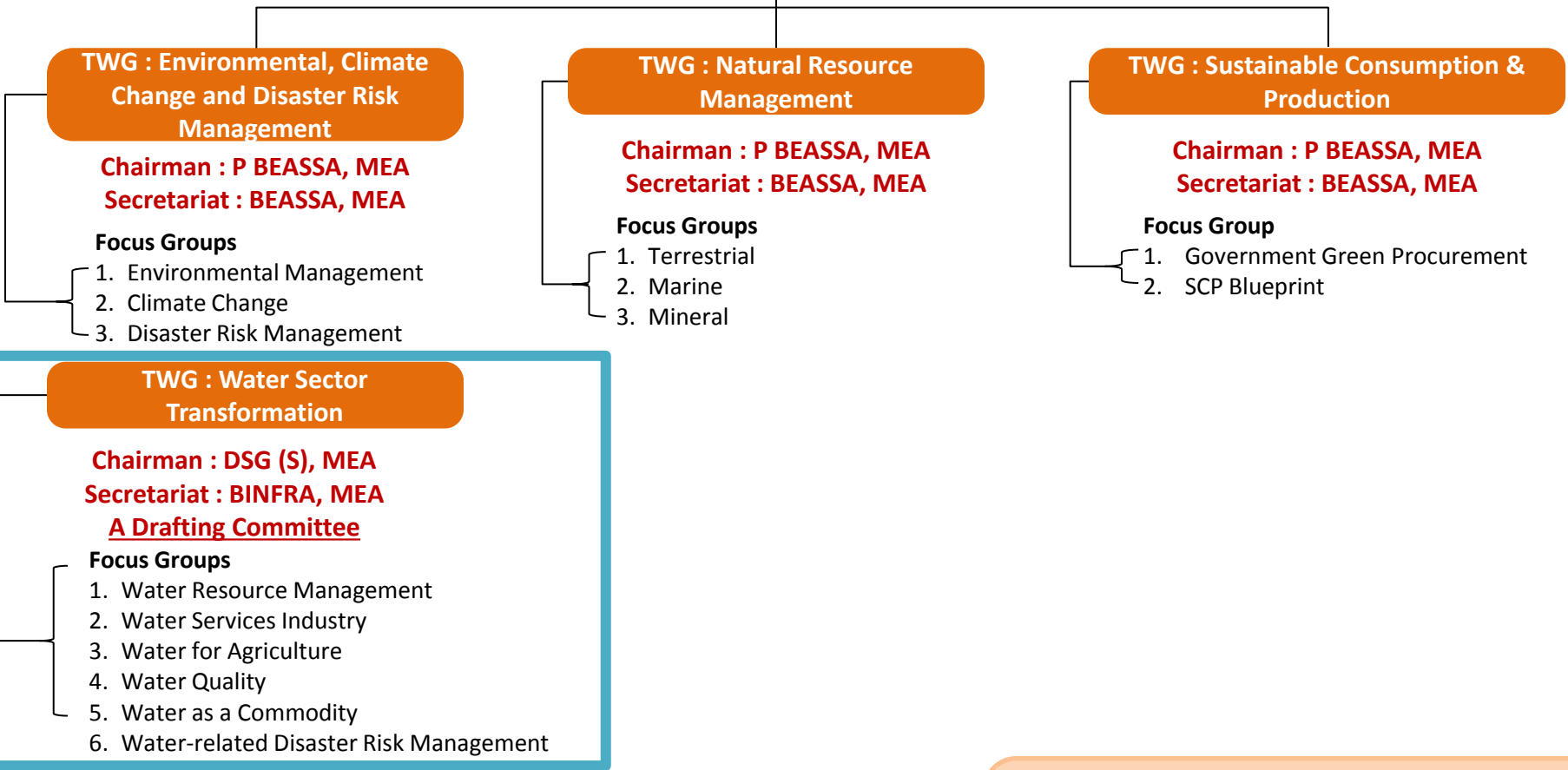
Output

Strategy Papers

1. Embedding Behavioral Insight in Designing Policy (BKE)
2. Reforming State-owned Enterprise Management (BPKP)
3. Reforming Public Private Partnership Towards Reducing Government Roles in Businesses (BPSKA)
4. Ensuring Sustainability of B40 Household Income (BEQT)
5. Upholding Bumiputera Community Towards a Resilient, Progressive and Bold Society (BEQT)
6. Invigorating Healthcare Towards Progressive Nation (BPS)
7. Towards 2030 : Creating Solutions for the Ageing Population in Malaysia (BPS)
8. Strengthening National Unity (BPS)
9. Ensuring a Safe, Secure and Peaceful Nation (BKKA)
10. Progressing Towards Sustainable Cities (BPW)
11. Transforming Rural Areas to Uplift Wellbeing of Rural Communities (BPW)
12. Strengthening Coordination and Cooperation to Support Regional Development (BPW)
13. Strengthening Technical and Vocational Education and Training (TVET) to Meet Industry Demand (BPMI)
14. Inclusive Labour Market for Prosperous Nation (BPMI)
15. Revitalising Education System (BPMI)
16. Reinvigorating Higher Education System (BPMI)
17. Investing in Sustainable and Resilient Growth (BEASSA)
18. Valuing Natural Resources for Socioeconomic Development (BEASSA)
19. **Water Sector Transformation (BINFRA)**
20. Sustainable Usage of Energy to Support Growth (BTE)
21. Driving Modernisation in Agro-food (BTANI)
22. Delivering Economic and Social Prosperity Through Agri-Commodity (BTANI)
23. Energising Manufacturing Sector (BIPST)
24. Translating Innovation to Wealth (BIPST)
25. Aerospace (BIPST)
26. Fostering a Robust Services Sector (BIP)
27. Digitalising Malaysian Economy (BKE)
28. Making Connections: Seamless Transport System and Logistics (BINFRA)

IAPG on Environment, Natural Resource and Disaster Risks (BEASSA)

Chairman : Dep. SG (Macro), MEA
Secretariat :
 Director (Environment and Natural Resource), MEA



Proposed Strategy Papers

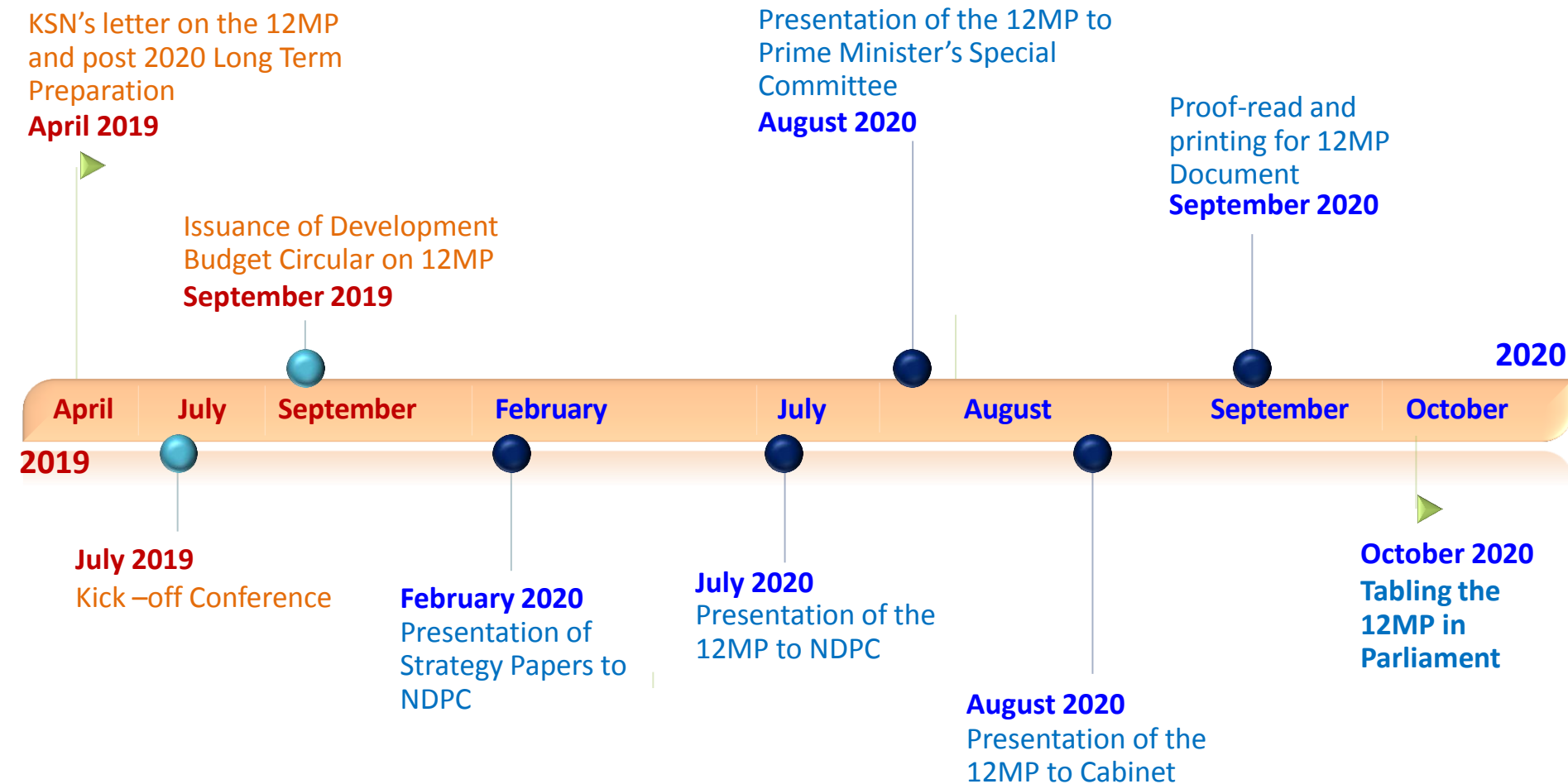
1. Investing in Sustainable and Resilient Growth
2. Valuing Natural Resources for Socioeconomic Development
3. Water Sector Transformation

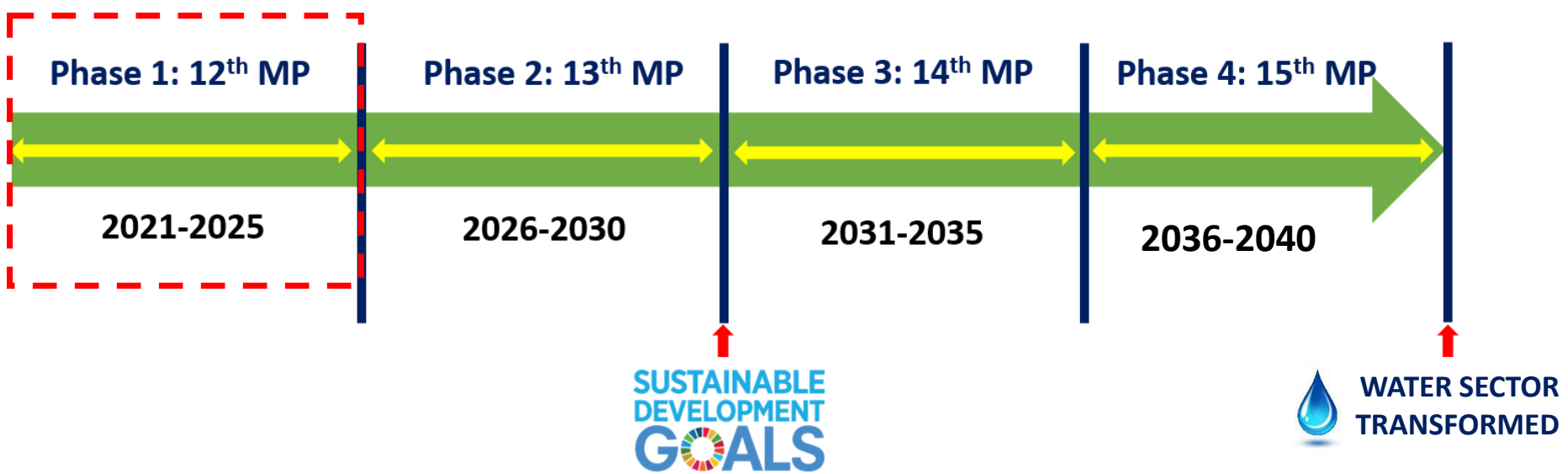
IAPG on Environment, Natural Resource and Disaster Risks

- 4 Technical Working Groups
- 14 Focus Groups

SULIT

Timeline for the Twelfth Malaysia Plan





THEME **Water - a resource, an asset, a precious commodity, a lifeline for the nation**

VISION 2040 A major national dynamic economic sector, within a pristine environment which providing sustenance, security, support and joy to the nation

- **Clean, safe, affordable, reliable water services**
- **Pristine environment**
- **Efficient recycling/ resource recovery**
- **Behavioural change etc.**

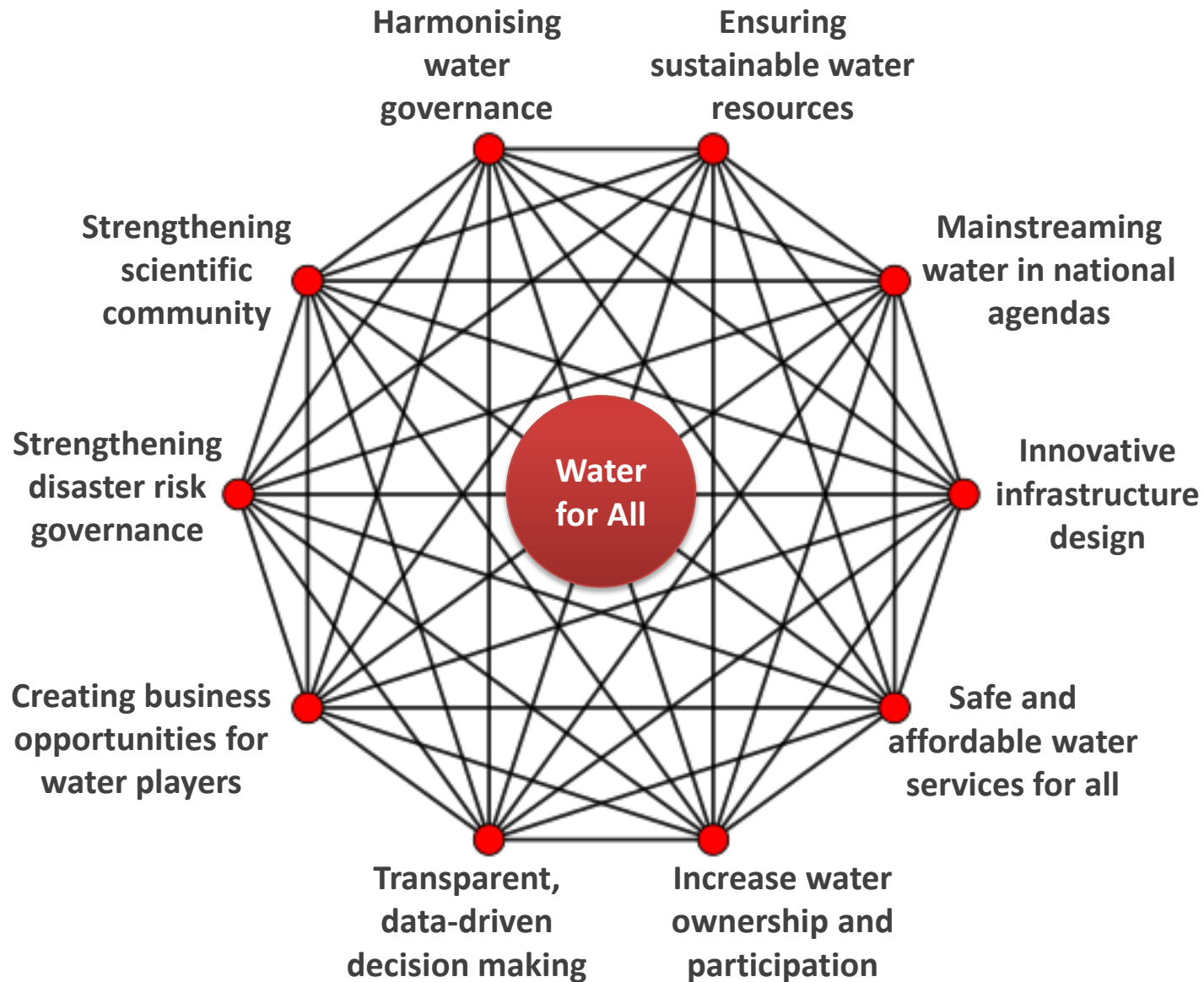
- **% share to GDP**
- **FDI**
- **# jobs created**
- **# skilled worker**
- **Water knowledge hub**
- **International standards local technology etc.**

- **Water Resources Management**
 - Ineffective implementation of water-related policies/ legislation
 - Lack of consideration for water in development planning
 - Low awareness and participation of non-state actors
 - Lack of water related database
- **Water Services (Water Supply and Sewerage Services)**
 - Financial sustainability issues
 - Unreliable water sources
 - Expensive infrastructure
- **Water for agriculture**
 - Competition on water resources usage with other sectors
 - Aging and poor maintenance of irrigation infrastructure
- **Water Quality**
 - Legislative gap
 - Insufficient enforcement capacity
- **Water as An Asset for Wealth Creation**
 - Lack of awareness, knowledge, infrastructure and access to technology on resource recovery
- **Water-Related Disaster Risk Management**
 - Lack of focus on integrated and non-structural measures
 - Current infrastructure design does not take into account adaptation measures for disaster
 - Lack of R&D

Outcome: Effective Implementation of IWRM

1. **Harmonizing** water governance (*vertical and horizontal*)
2. Ensuring safe, quality and reliable **water resources**
3. **Mainstreaming** water in national agendas (eg.: Holistic development planning and implementation)
4. Review and update **infrastructure** design and technology used (*resilient, green vs grey, non-structural vs structural measures*)
5. Ensuring safe and affordable **water services for all**
6. Increase water **ownership** through inclusive and participatory approach involving all stakeholders
7. Integrated, data driven and transparent water **decision making**
8. Expanding **business** opportunities for water players
9. Strengthening **disaster risk** governance and investing in disaster risk reduction for resilience
10. Strengthening **scientific community, local experts and skilled workforce** to support water sector transformation

10 PILLAR STRATEGIES





Thank you

**Wan Izar Haizan binti Wan Rosely (water
sector transformation)**

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**Ministry of
Economic
Affairs**

