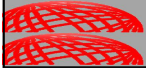




## WATER MANAGEMENT UNDER CLIMATE CHANGE AND SDG

**AHMAD KAMAL WASIS**  
Environment and Natural Resource Division  
Ministry of Economic Affairs  
MALAYSIA

Ministry of  
Economic Affairs



### SETTING THE CONTEXT: Water Management under Climate Change and SDG

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- Why water is an important topic?**
  - Water crisis
  - Disaster related to water
- Water crisis?**
  - Daily use: how much we consume?
  - Beyond our daily use: water for agriculture (food) and hydro (energy)
- Water in SDG and climate action:**
  - SDG 6: Ensure availability and sustainable management of water and sanitation for all
  - Climate action: water is one of the most important sector under the adaptation measure
- Malaysia's Approach:**
  - strengthening national framework;
  - formulation on national policies; and
  - implementation of specific programmes to steer Malaysia towards sustainability.



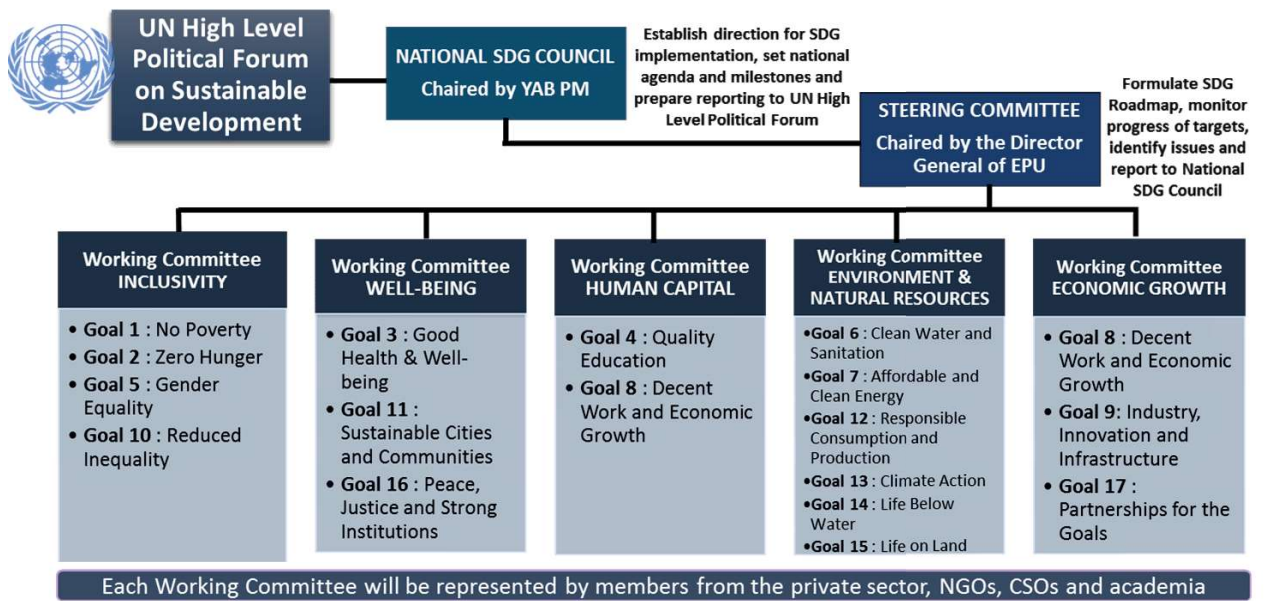
Ministry of Economic Affairs

2

# Malaysia's Approach

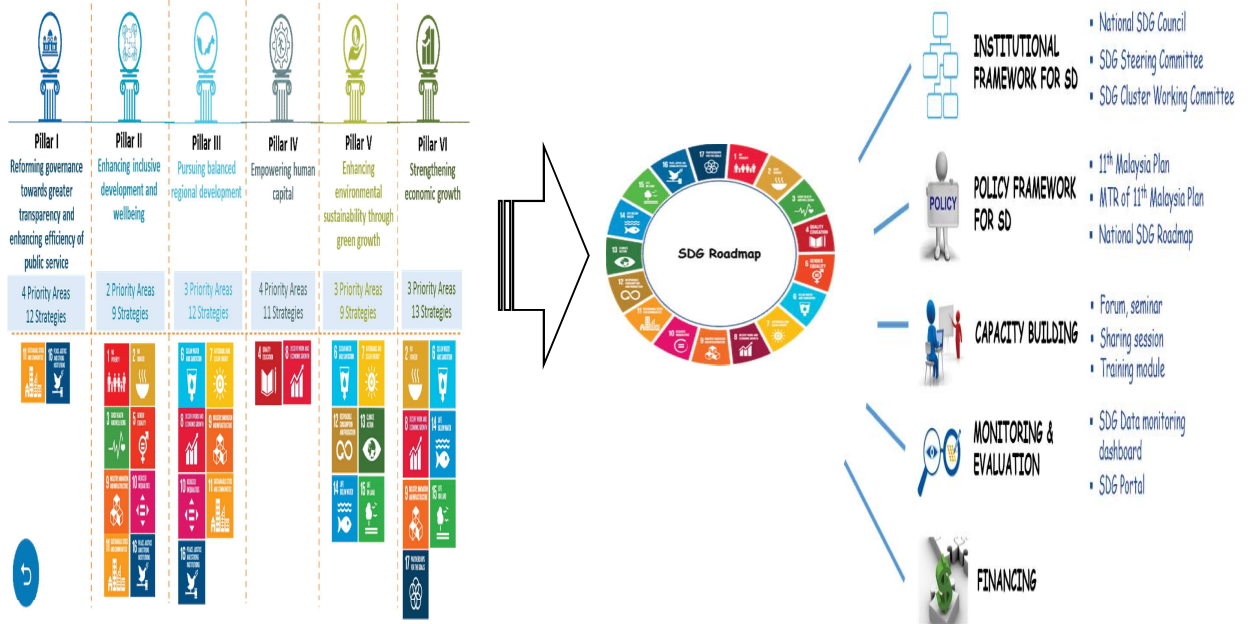
Institutional Setup	Policy Framework	Management Instruments
<ul style="list-style-type: none"> <li>National Water Resource Council</li> <li>Ministry of Water, Land and Natural Resources (KATS)</li> <li><b>Institutional Framework for SDG</b></li> </ul>	<ul style="list-style-type: none"> <li>National Water Resource Policy, 2012</li> <li>Midterm Review of the Eleventh Malaysia Plan (MTR 11<sup>th</sup> MP), 2018-2020</li> <li><b>SDG Roadmap – Mapping the SDG with the MTR of the 11<sup>th</sup> MP</b></li> </ul>	<ul style="list-style-type: none"> <li>National Water Balance Management System (NAWABS)</li> <li>Flood Forecasting and Warning System (<i>Program Ramalan Banjir Negara - PRABN</i>)</li> </ul>

## INSTITUTIONAL SETUP: Institutional Framework for SDG in Malaysia

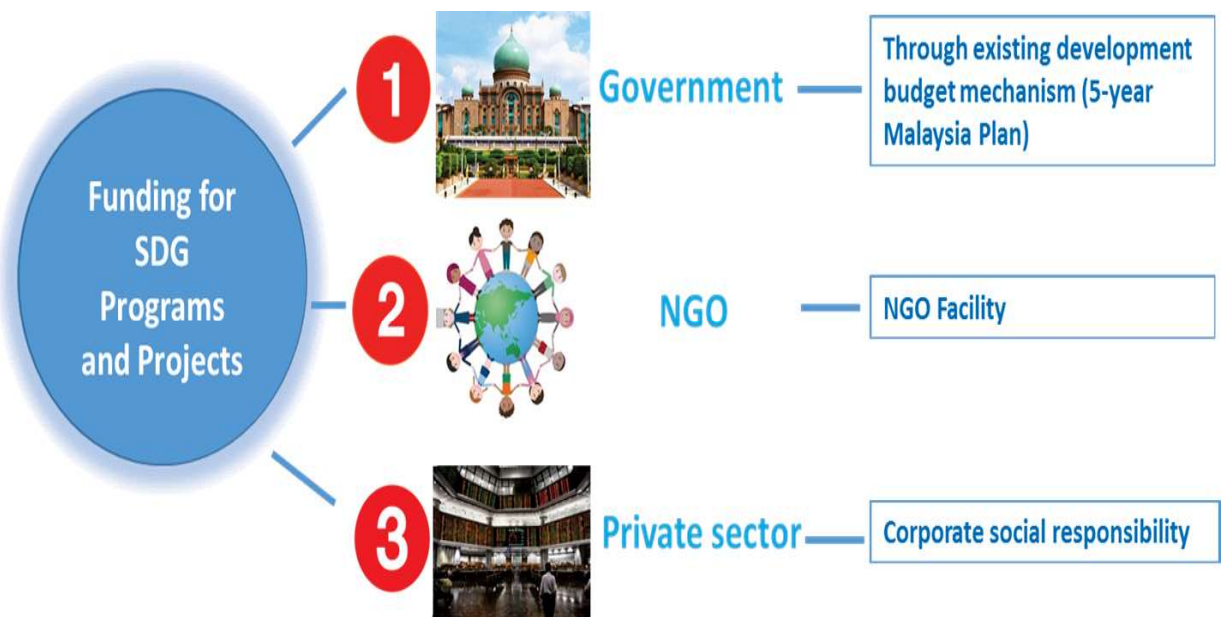


# POLICY FRAMEWORK:

## Mapping the SDG with the Midterm Review of the 11<sup>th</sup> Malaysia Plan



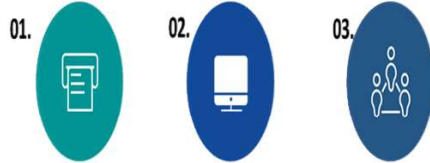
# POLICY FRAMEWORK: Financing for SDG



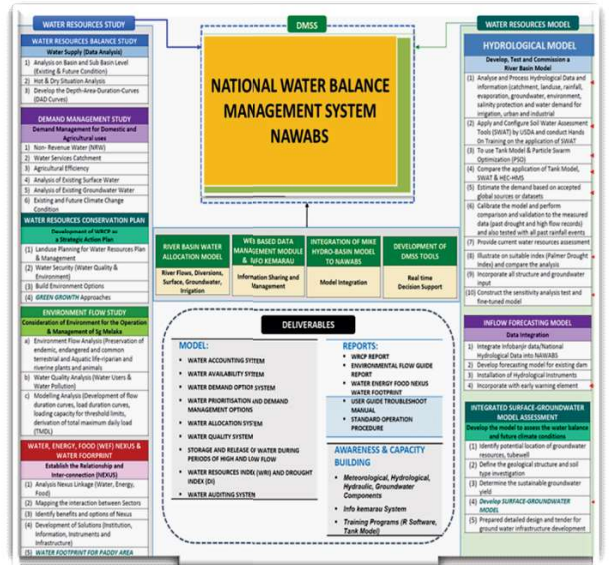
# MANAGEMENT INSTRUMENT: National Water Balance Management System (NAWABS)

## Outcome of NAWABS

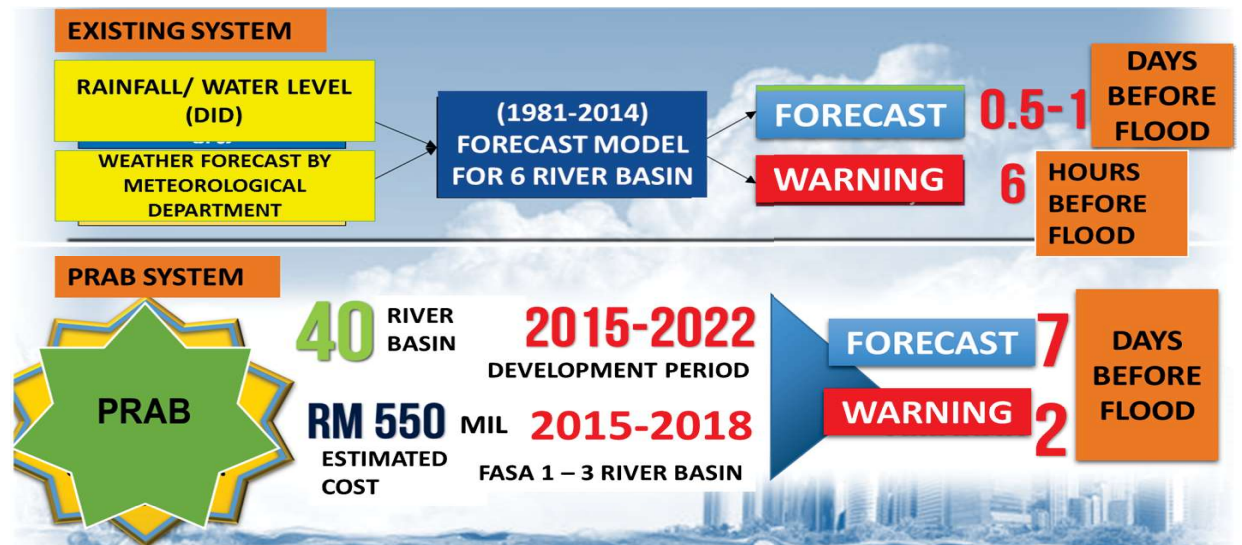
A computerized system based on investigation in water demand and water balance:



- Centralized Decision Making tools on IWRM for Water Resource Manager (long term planning and distribution) on 9 main outputs which are:
1. Water Accounting System
  2. Water Demand Option System
  3. Water Availability System
  4. Water Prioritisation System
  5. Water Allocation System
  6. Water Quality System
  7. Water Storing and releasing during low and high flows
  8. Water Resources Index and Drought Index
  9. Water Auditing System
- Forecast in 2 months
  - Warning in 2 weeks
  - Improved water security and sustainability of water resources allocation/storages
  - National priority to ensure adequate and safe water for all
  - and public preparedness



# MANAGEMENT INSTRUMENT: Flood Forecasting and Warning System (PRAB)



*Thank  
you*

