



**Asia-Pacific
Economic Cooperation**

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Agenda Item: 2

Update on Malaysia Science Advice Initiatives

Purpose: Information
Submitted by: Malaysia



**Fourth APEC Chief Science Advisors and
Equivalents Meeting
Lima, Peru
18-19 August 2016**



Office of the Science Advisor Prime Minister's Office

Update on Malaysia Science Advice Initiatives



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2015 – A watershed year for Sustainable Development



**UN World Conference on Disaster
Risk Reduction**
Sendai, Japan, March 2015



Sustainable Development Goals,
New York, September 2015



**Climate Change Agreement at
COP 21,**
Paris, December 2015



Science – Policy Nexus

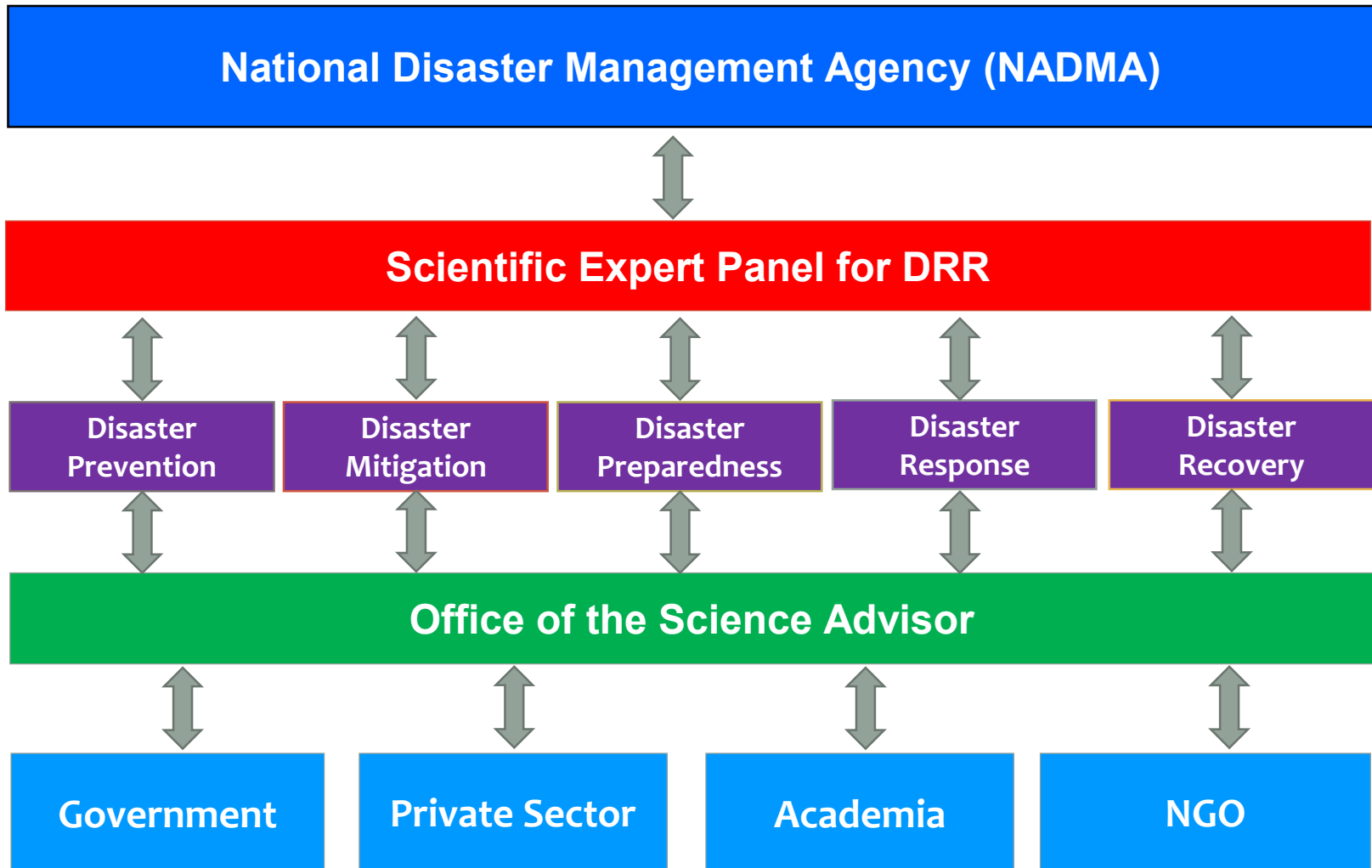


Rapid Advice in Emergencies – Big Flood

- In Malaysia, the recent floods in which occurred late last year has been the worst experienced in the country. It has affected more than half a million people with damages to public infrastructure alone reportedly costing RM2.851 billion.
- Areas that have never experienced floods before were inundated and flood water rose to unprecedented levels
- What's the S&T response?



Scientific Advisory Panel to advise the National Security Council



Examples of the S&T Response



Big data and analytics will allow future disasters to be accurately predicted



Ecohomes provide quick, easy to build housing for displaced persons during disasters that can be recycled once used.



Advanced flood walls contain flood waters, preventing damage to infrastructure and assets.



Robotics can be used to support relief and clean-up efforts, accessing areas that are too dangerous for humans.



UAVs can be used to provide real-time, on-site situational awareness. Heavier versions can also provide support and relief

Rapid Advice in Emergencies – the Sabah Earthquake

- Last year, Sabah experienced a powerful earthquake with a magnitude 5.9
- The damage following the earthquake and more than 100 aftershocks affected 61 buildings such as schools, hospital and mosque, 22 roads and 22 slopes.
- The aftermath of the earthquake also affected about 200 families in Ranau and Kota Belud who suffered after mudslides destroyed their homes, farms and plantations as well as disrupted water supply.



Rapid Advice in Emergencies – the Sabah Earthquake

- According to local geologists earthquakes at such magnitude are very rare in Malaysia
- Notwithstanding, a greater and more proactive role to monitor earth movements is needed in the future so that a better early-warning system is put in place in vulnerable areas of the country
- Local scientists need to share experiences and forged greater collaboration with their counterparts that have more experience in earthquakes such as those in Indonesia, the Philippines and Japan



Thank You



SCIENCE
to ACTION