



ASEAN PROJECT ON DISASTER RISK REDUCTION BY INTEGRATING CLIMATE CHANGE PROJECTION INTO FLOOD AND LANDSLIDE RISK ASSESSMENT

Study Tour for Flood Risk Management

8 July 2019, Malaysia

Presented by CTII,
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Outcomes

1. **DRR and CCA are further mainstreamed** in sectoral policies and local development plans through close inter-ministerial/agency coordination in each ASEAN Member State;
2. **Strengthened capacity** of targeted national and local government officials and institutions specifically **on flood and landslide risk assessment and risk mapping** with incorporation of climate projection through implementing the pilot projects; and
3. **Strengthened capacity** of other national and local government officials and institutions **through dissemination and application of guidelines and training modules** developed by the project.

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Outputs

Output 1

Synthesized regional progress report on effective implementation of DRR/CCA

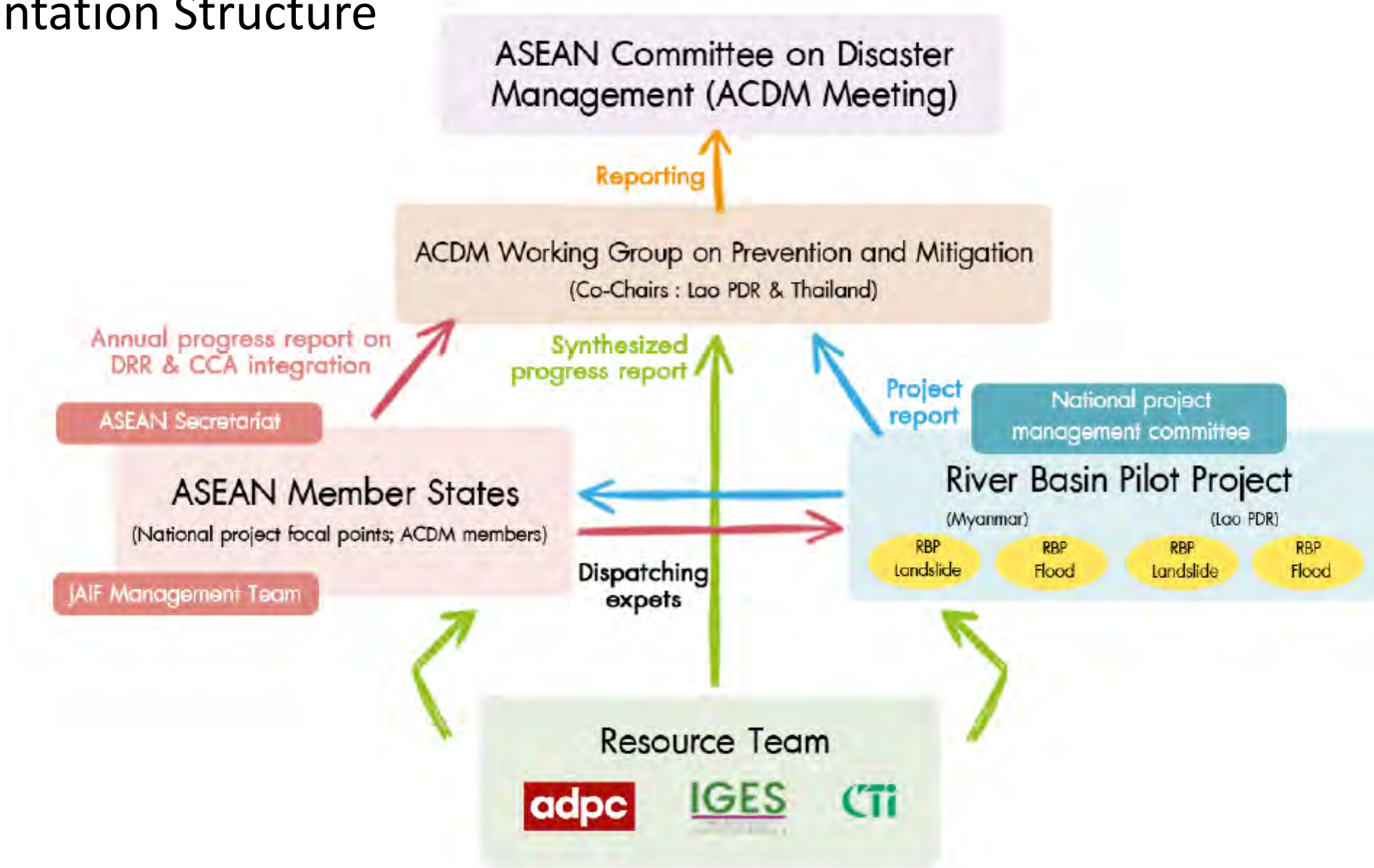
Output 2

Flood and landslide risk maps incorporating climate change projections for selected river basins

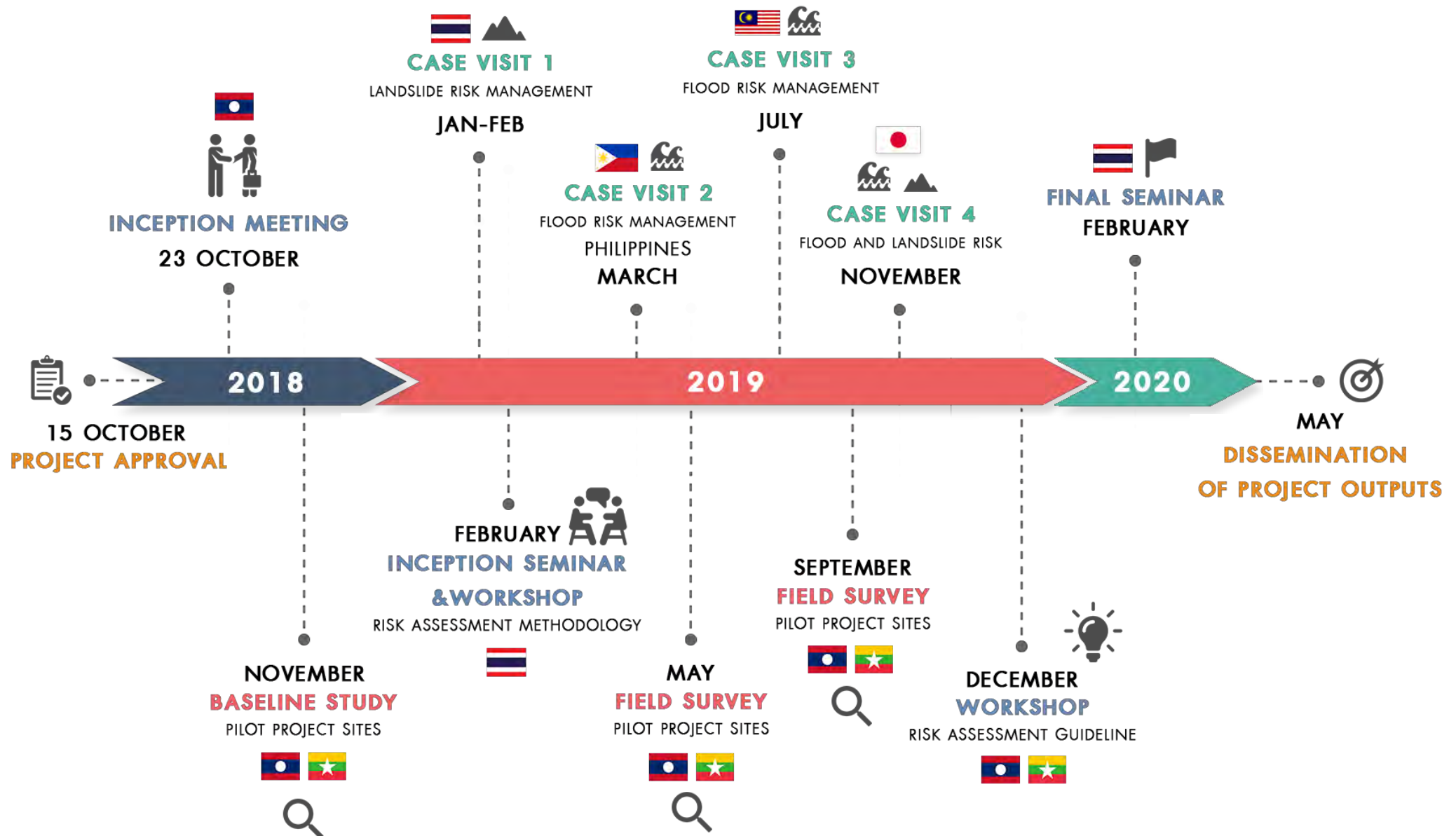
Output 3

Guidelines and training modules for incorporating climate change risk into flood and landslide risk assessment; and project website

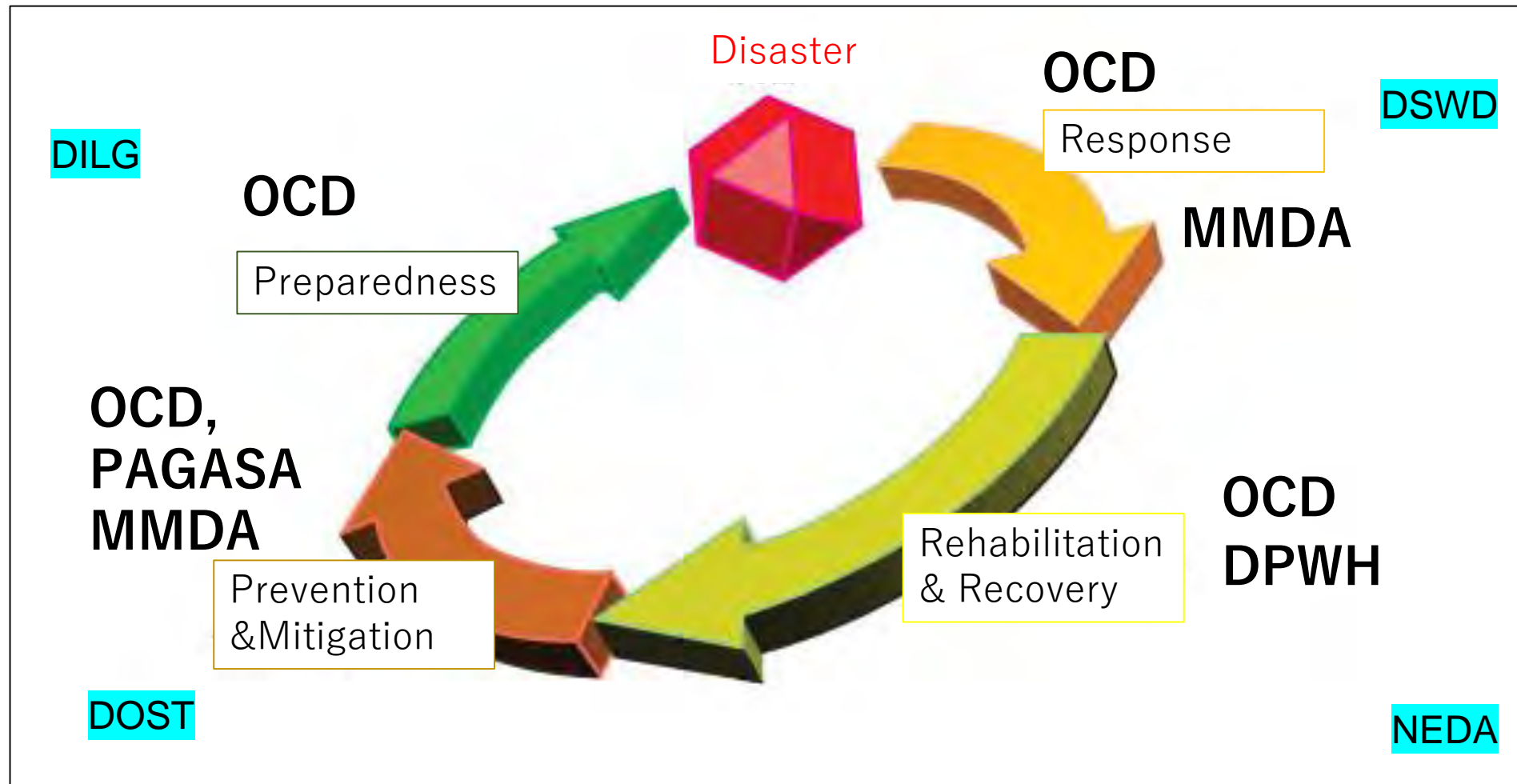
Implementation Structure



Project Timeline



2nd Case Visit (Philippines' DRRM Structure)



Note: Based on National Disaster Risk Reduction and Management Plan (NDRRMP)

Overall responsible agencies for each DRRM stage

3rd Case Visit (Malaysia's DRRM Structure)

Based on Malaysia's Disaster Reference Handbook 2016

**1. Malaysian Meteorological Service,
2. MMD,
3. DID, etc.**

Preparedness

Disaster



Response

**1. MRCS,
2. Special Malaysia Disaster Assistance and Rescue Team, etc.**

NADMA has roles & responsibility for all stages based on "National Security Council Directive No. 2004" and "Standard Operating Procedures"

**1. DID, MMD
2. MACRES, etc.**

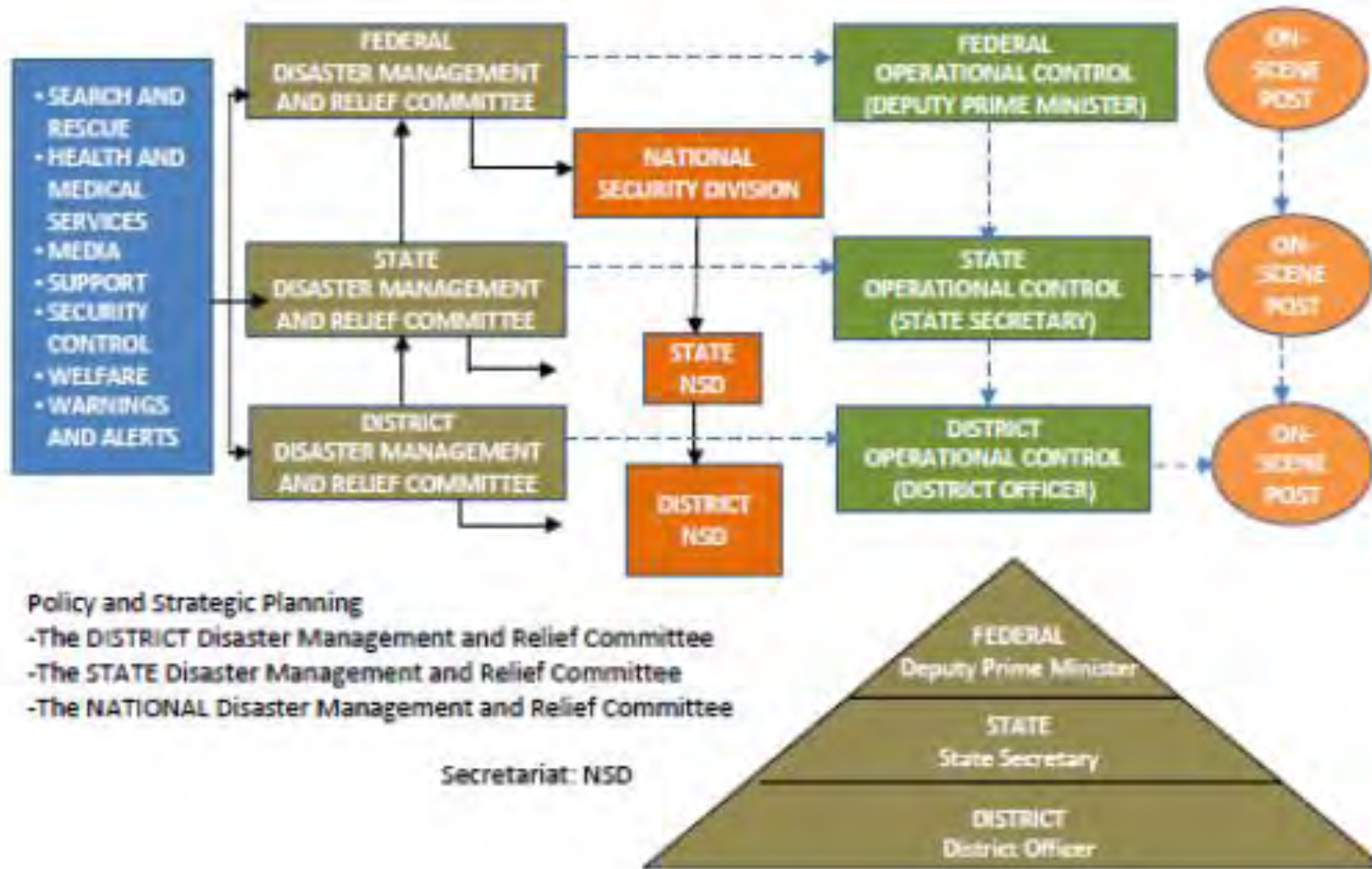
Prevention & Mitigation

Rehabilitation & Recovery

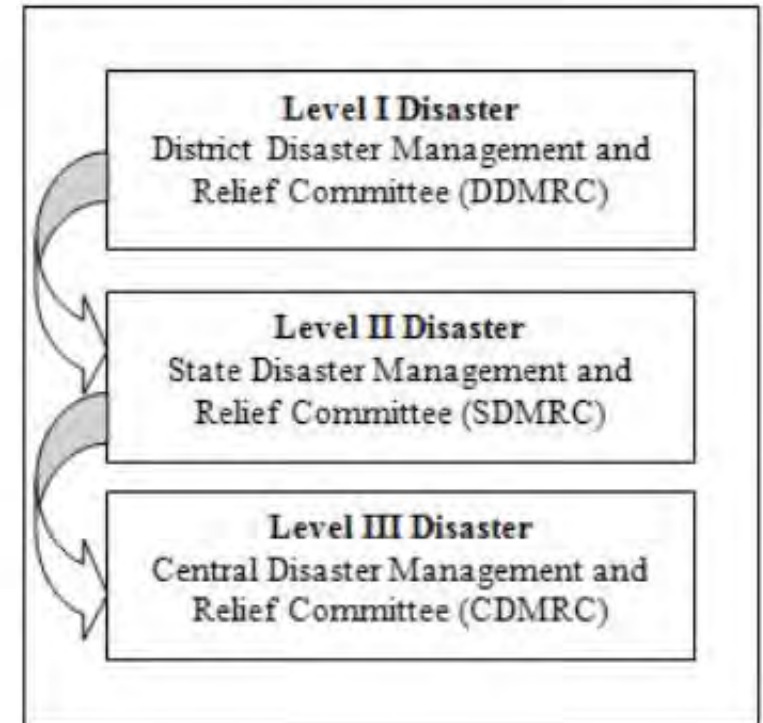
**1. KWABBN,
2. Malaysia Social Welfare Department, etc.**

The Department of Drainage and Irrigation (DID): is designated to monitor river flow, rain and floods as well as oversee flood mitigation.
-Flood mitigation plans have been developed for 17 major river basins and 27 towns. Based on these plans,
-various structural and nonstructural measures have been proposed and partially implemented

3rd Case Visit (Malaysia's DRM Structure)

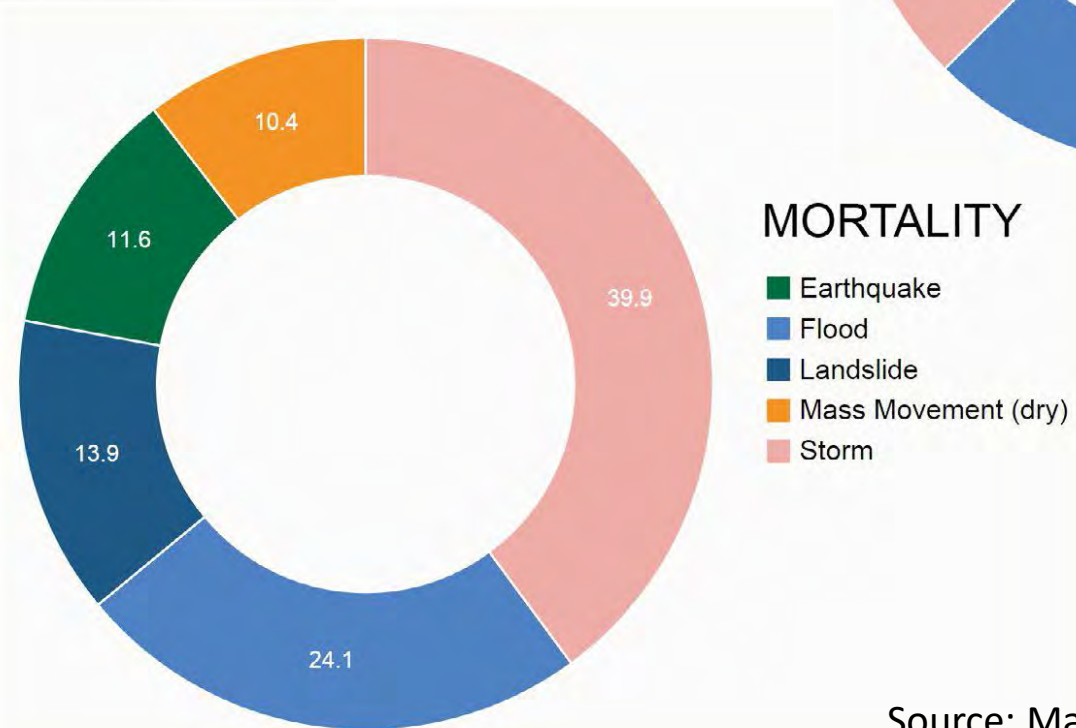
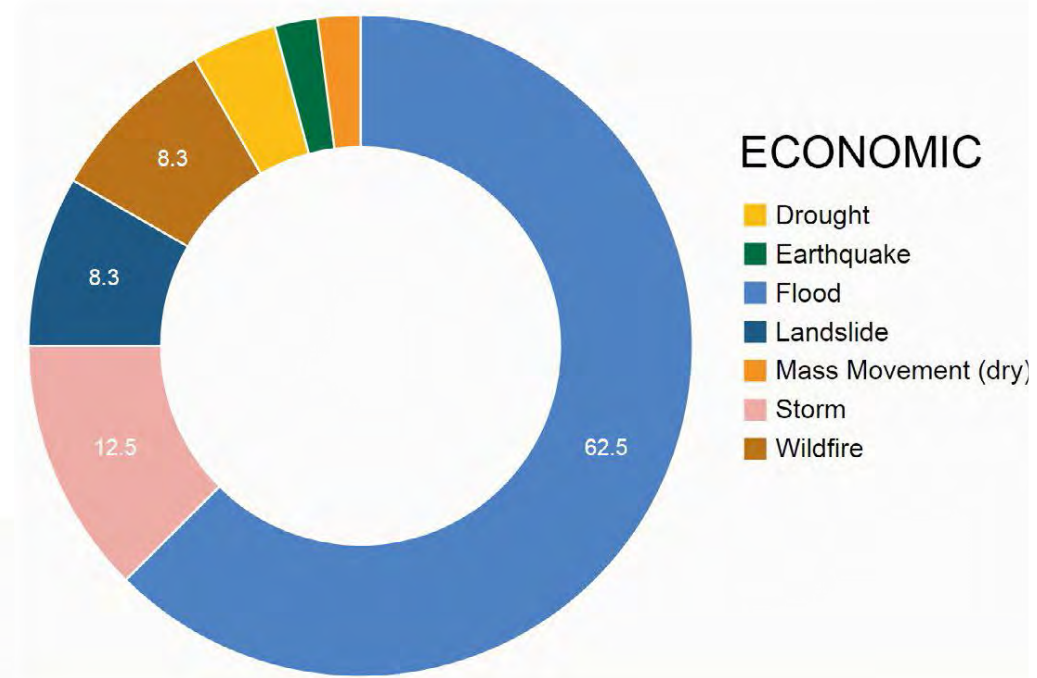
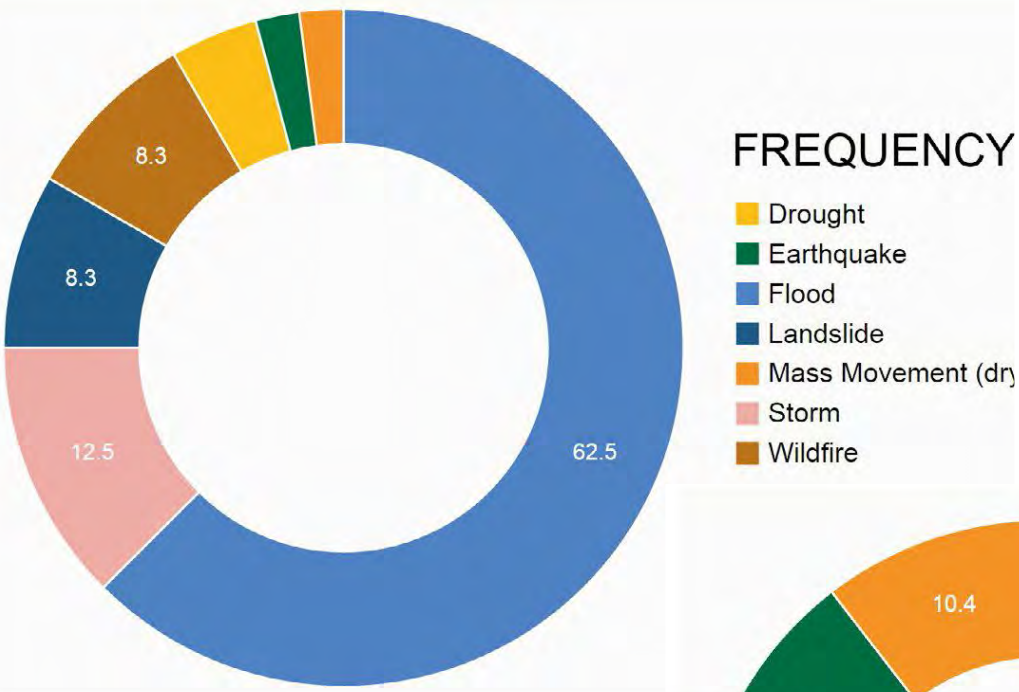


DRM Structure



Characteristics of Disasters in Malaysia

Malaysia's Reported Losses Between 1990-2014



Schedule and Purposes

Day	Type of Course	Items	Purpose to be learned
DAY1	Briefing	Briefing on Integrated Flood Management	Urban Flood Mitigation Project
	Site Visit	Kuala Lumpur Flood Mitigation Project (Smart Tunnel, Batu Dam & Diversion Channels)	
DAY2	Visit	Section for Hydrological Analysis and Climate Change Impact	Data Analysis and FFWS
	Visit	National Flood Forecasting and Warning System	
DAY3	Briefing	Briefing on Timah Tasoh Dam and West Flood Diversion Channel	Structural Measures for Flood Mitigation
	Site Visit	Tasoh Dam & West Flood Diversion Channel	
	Briefing	Briefing on Agricultural/Paddy field/granary area	Flood Mitigation in Agricultural Area
	Site Visit	Ampang Jarar	
	Briefing	Kedah Anak Bukit Flood Mitigation Project	
DAY4	Briefing	Briefing on Sungai Muda Flood Mitigation Project	Flood Mitigation Projects
	Briefing & Site Visit	Briefing on Bertam Flood Mitigation Project & Site Visit	
	Briefing & Site Visit	Briefing on Mak Mandin Flood Mitigation Project & Site Visit	
DAY5	Visit	Visit to NAHRIM Laboratory	Experimental devices and systems
	Briefing	Briefing on Climate Change Downscaling Application for Flood Risk Management & Impact of Sea level rise	Climate Change Impact
	Visit	Web Portal System by NAHRIM	Information sharing and data provision system
	Briefing	Explaining on Integrated River Basin Management (IRBM) by DID	Integrated River Basin Management
	Summary	Summary of Case Visit	

Thank You for Your Attention
to the Presentation