



*National Science
and Technology Council*

Cambodia's Policy to Mitigate Disaster Risk and Climate Change



**PRESENTED BY: VISETH UNG, , DEPUTY SECRETARY GENERAL,
NATIONAL SCIENCE AND TECHNOLOGY COUNCIL,
IN THE INTERNATIONAL WORKSHOP ON MITIGATION ON DISASTER DUE
TO SEVERE CLIMATE EVENTS:
FROM POLICY TO PRACTICE, MARCH 10-13, 2016, COLOMBO, SRI
LANKA**

Outline

- 1. About Cambodia**
- 2. Overview of Main Natural Disasters Hazards & Impacts**
- 3. Disaster management system**
 - 3.1 National Mechanism Structure**
 - 3.2 Sub-National Mechanism Structure**
 - 3.3 Disaster Management Plan, Policy and Strategy**
- 4. Cambodia Disaster Management Information System**
 - 4.1 Dissemination of Forecasting and Early Warning Information**
 - 4.2 Disaster Management Information System**
- 5. Success Stories,**
 - 5.1 Community Based Disaster Risk Management**
 - 5.2 Recent major projects on disaster risk reduction**
- 6. Challenges**
- 7. Suggestions and Recommendations**

I. About Cambodia

Kingdom of Cambodia

- Country Name: Kingdom of Cambodia
- Population: About 15 Million (NIS,2013)
 - Urban: 19.5%
 - Rural: 80.5%
 - Growth Rate: 1.35% (2010)
 - Density: 83 Per. Sq. Km
 - Capital: Phnom Penh
 - Area: 181,035 Sq Km
 - Province/Capital: 25
 - Major Language: Khmer
 - Major Religion: Buddhism
 - Currency: Cambodian Riel
- Bordered by:
 - Thailand to the West
 - Lao PDR to the North
 - Viet Nam to the East
 - Gulf of Thailand to the South



2. Overview of Main Natural Disasters Hazards & Impacts

- Cambodia is considered as the 8th Country the most prone to natural disasters in the world

Flood



Storm



Drought

Flood

In 1996:

- **2,029,748 people affected.**
- 250,218 ha of crops damaged.
- 3,768 homes damaged
- Total damages: US\$85.7 M.



In 2000:

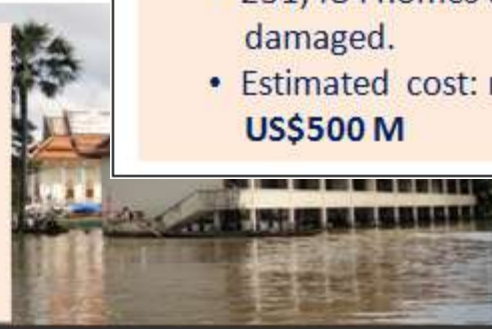
- **347 people died, 80% children.**
- 3,448,629 people affected.
- 317,975 homes damaged.
- Total damages: US\$ 150 M.



Flood

In 2001:

- 14 provinces, 84 districts, 595 communes.
- **62 people died, 70% children.**
- 2,251 homes destroyed.
- Total damages: US\$36 M.



In 2002:

- 7 provinces, 41 districts.
- **29 people died.**
- 40,027 ha of rice crops affected
- 1,082 homes destroyed.
- Total damages: US\$19 M.



Flood

In 2011:

- 18 provinces, 122 districts, 687 communes.
- **250 people died, 70% children.**
- 1297 homes damaged.
- Total damages: US\$520 M.



In 2013:

- 20 Capital and provinces; 132 Districts; 770 Communes.
- **168 people died, 44% Children.**
- 231,484 homes affected, 287 damaged.
- Estimated cost: **more than US\$500 M**



Drought

- Some areas face to drought every year
- A short dry spell: 20 to 30 days in July or August (*Middle of rainy season/farming season*).



- In 2002-2004 experienced in large scale:
 - 2,047,340 people affected.
 - 62,702 ha of rice crops damaged.
 - Total damages: US\$ 55.3 M.

Year	Impacted Element	Affected	Damaged
2002-2004	Areas affected: 10 provinces, 76 districts, 420 communes		
	People	2,047,340	
	Family	442,419	
	Rice crops		62,702 ha
	Total damages is US\$ 55.3 M		

- In 2013
 - 30 ha of rice crops damaged.
 - 11,764 ha of rice crops affected.
 - 1,520 ha of rice crops rescued.

Year	Impacted Element	Affected	Damaged	Rescued
Sep 05, 2013	Areas affected: 3 provinces, 10 districts			
	People			
	Family			
	Rice crops	11,764 ha	30 ha	1,520ha

Storm - Typhoon Ketsana

Year	Impacted Element	Died	Injured	Affected
Sep 2009	Areas affected: 14 provinces, 73 districts, 336 communes			
	People	43	67	180,000
	Total affected: US\$ 132 M			



Source: NCDM, 2009

Storm Report in 2013

Year	Impacted Element	Died	Injured	Damaged
By Sep 05, 2013	Areas affected: 111 districts, Occurred: 154 times			
	People	29	110	
	Homes			8,224
	Schools			45
	Other buildings			12

3. Disaster management system

3.1 National Mechanism Structure

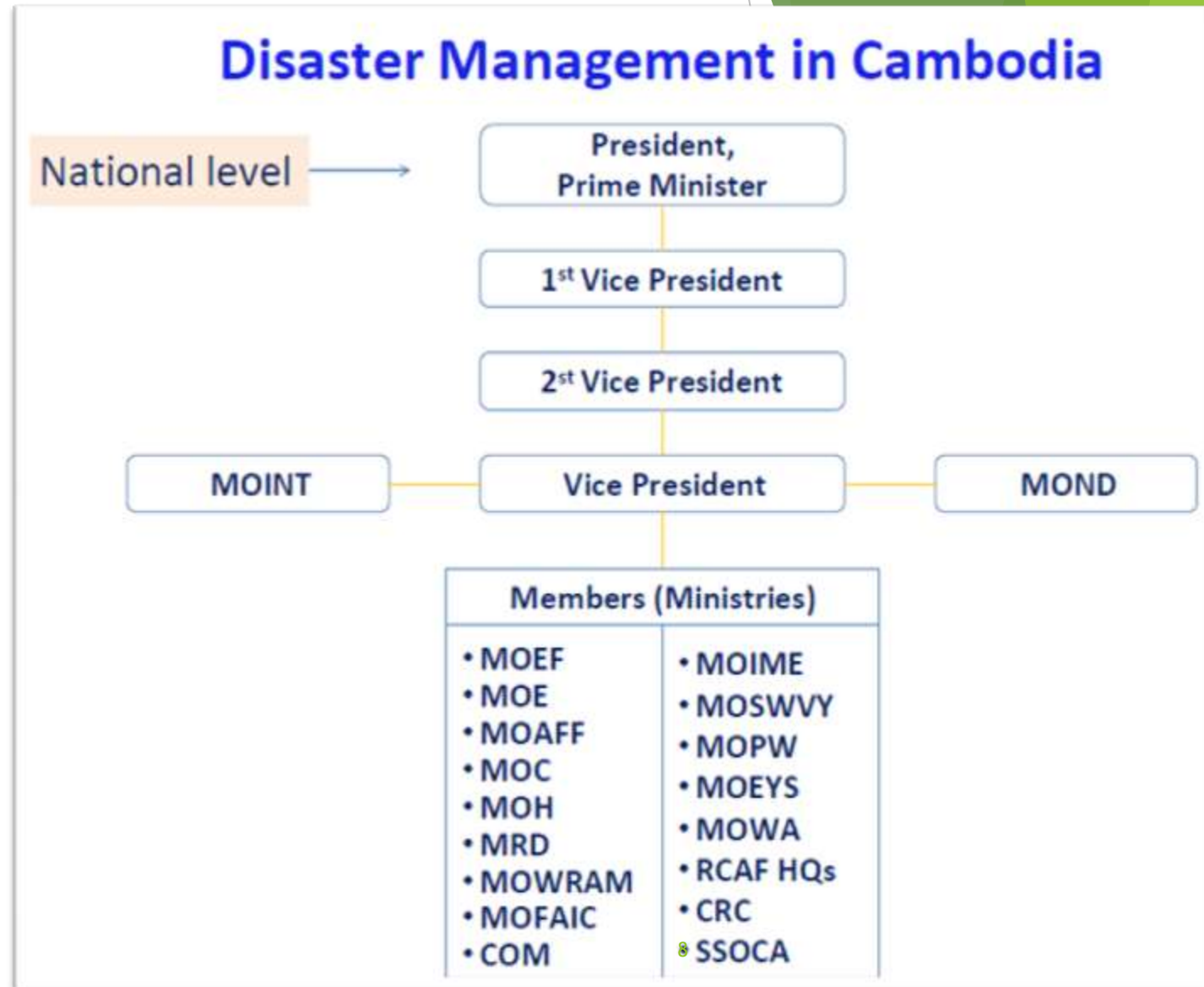
• Ministerial level agency, chaired by the Prime Minister that formed to assist the Royal Government in:

• **Mission:**

“To lead the Disaster Management in the Kingdom of Cambodia”.

• **Functions and Responsibilities:**

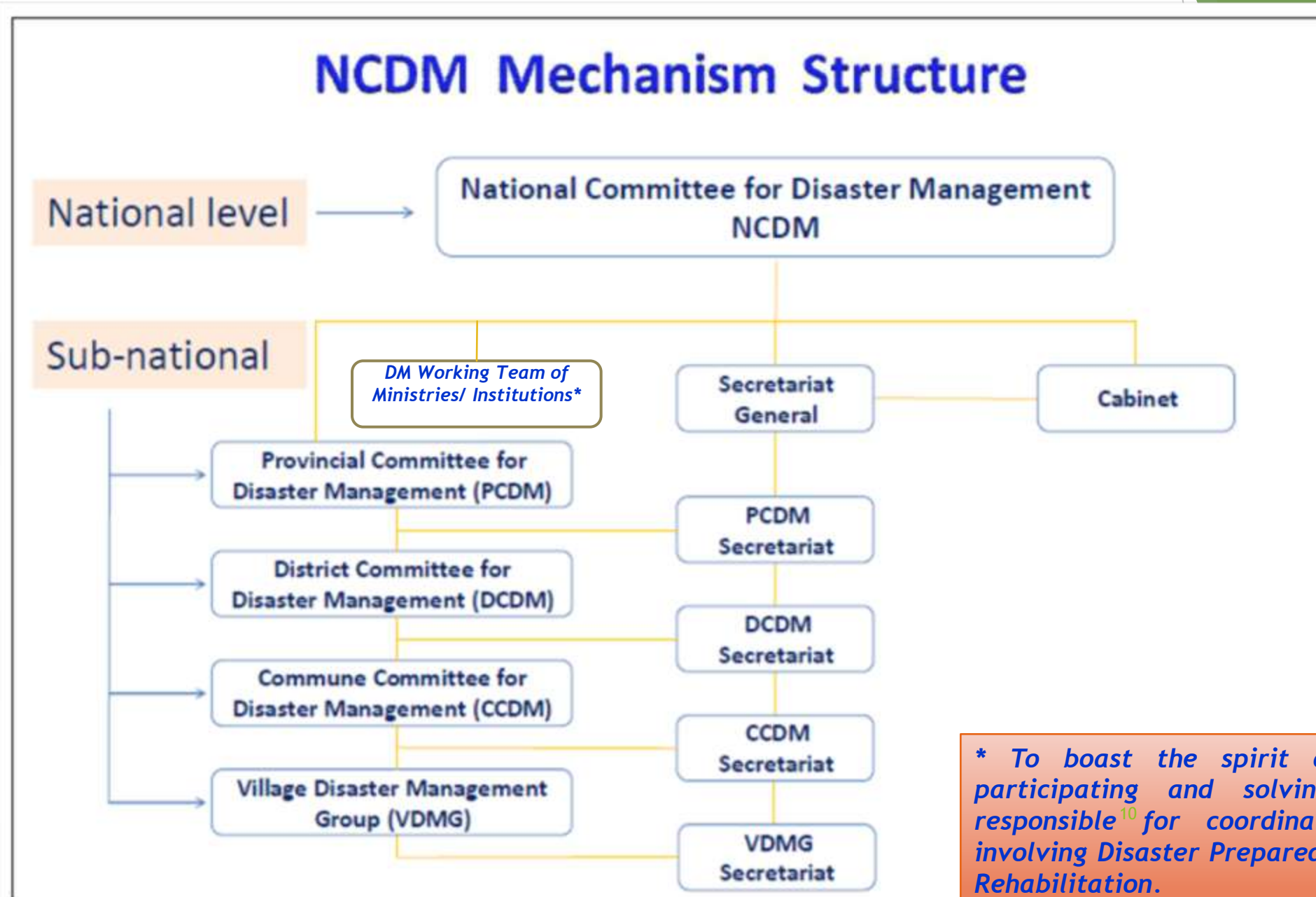
1. Manage data of disaster risk and develop report on the disaster situation;
2. Proposal on reserves of resources for Disaster intervention in Emergency Response;
3. Capacity Building and human resource development on disaster management;
4. Coordination in implementation of disaster management policies;
5. Exchange and sharing information
6. Coordination and mobilization or resources for disaster response;



3.1 National Mechanism Structure (Cont'....)

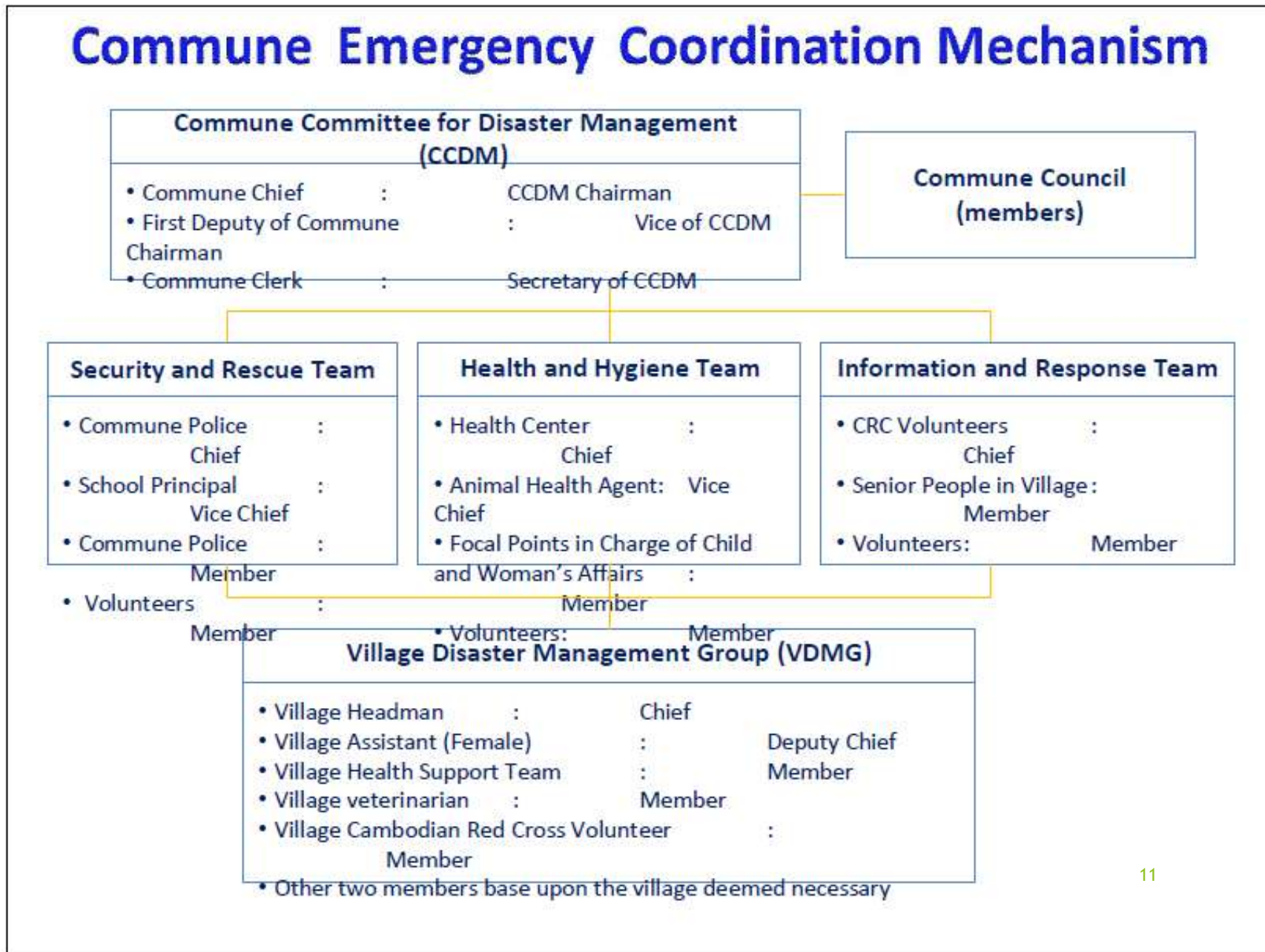


3.2 Sub-National Mechanism Structure



** To boost the spirit of self-reliance in participating and solving disaster. It is responsible¹⁰ for coordinating all activities involving Disaster Preparedness, Response and Rehabilitation.*

3.2 Sub-National Mechanism Structure (Cont'....)

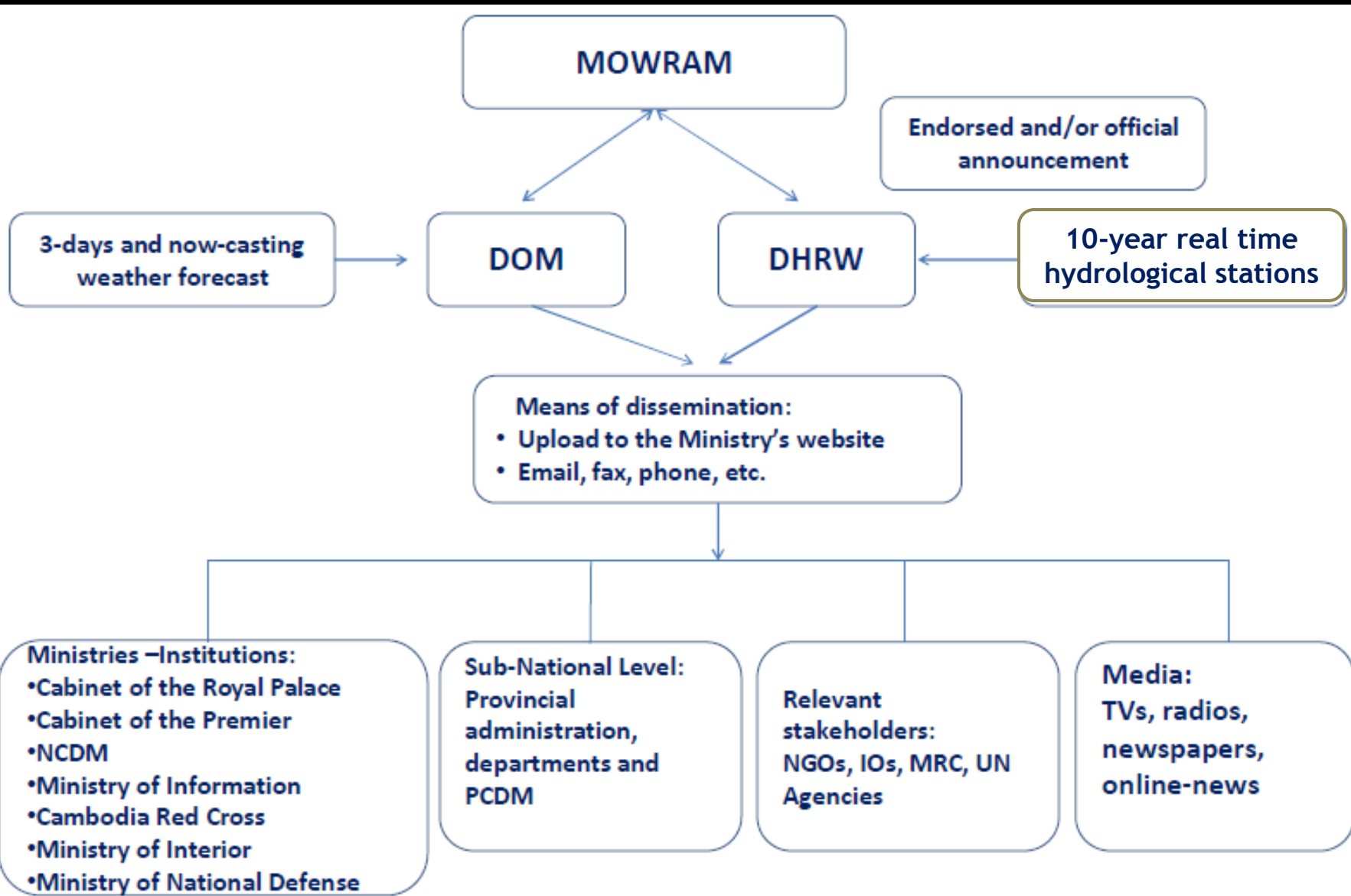


3.3 Disaster Management Plan, Policy and Strategy (Cont'...)

- Sub-decree No. 30 ANKR.BK, dated April 09, 2002 on the Organization and Functioning of the National and Sub-National Committees for Disaster Management;
- Sub-decree No. 61 ANKR.BK, dated June 29, 2006 on the establishment of the Commune Committee for Disaster Management (CCDM);
- Direction No. 315 NCDM, dated July 21, 2010 on the establishment of the Village Disaster Management Team (VDMT) for the implementation of Community Based Disaster Risk Management
- Law on Disaster Management was drafted and enacted by National Assembly in 2015.
- National Strategy Development Plan (NSDP) 2009-2013 and 2014-2018 (NSDP)
- National Action Plan for Disaster Risk Reduction 2014-2018 (drafted & adopted by 2014)
- Strategic National Action Plan for Disaster Risk Reduction (SNAP) 2008-2013
- Cambodia endorsed the Hyogo Framework for Action (HFA) in 2005 that provides a systematic and strategic approach to reduction of vulnerability and risk to disasters.

4. Cambodia Disaster Management Information System

4.1 Dissemination of Forecasting and Early Warning Information



Information Collected during disaster:



4.2 Disaster Management Information System

1. CAMDi and its Disaster loss Database

- Disaster management information system (DMIS), supported by UNDP being prepared which previous year lost data (from 1996-2013) collected through the country
- Database of CAMDi (DMIS) be linked to NCDM website- <http://www.ncdm.gov.kh>
- The CAMDi online disaster damage and loss database be accessible to all including Cambodia interface by late 2013.
- 70% of previous year lost data collected through from 1996-2013.



2. WebEOC Connection with AHA Centre

- WebEOC with AHA Centre being installed, under bureau Emergency Coordination Centre (ECC)
- Technical support by JICS (Japan International Cooperation System)
 - Staff trains
 - 5 computers
 - 5 screens



The screenshot displays the 'Disaster Loss Database (CAMDi)' interface. It features a navigation menu at the top and a main table titled 'Data Query Results'. The table lists disaster events with columns for Serial, Event, Province, District, Commune, Date, Location, Deaths, Injured, Missing, Houses Destroyed, and Houses Damaged. The data is filtered for Cambodia.

Serial	Event	Province	District	Commune	Date	Location	Deaths	Injured	Missing	Houses Destroyed	Houses Damaged
P_2011	Flood	Siem Reap			2011/09		0	0			
P_2011	Flood	Kampong Thom	Wong Chhuong Boe	Ou Kantev	2011/09		2				
P_2011	Flood	Kampong Thom	Wong Chhuong Boe	Wong Chhuong Boe	2011/09		4				
P_2011	Flood	Kampong Thom	Wong Chhuong Boe	Thmei Chhann Khle	2011/09		1				
P_2011	Flood	Kampong Thom	Preaek Sambour	Sarvour	2011/09		1				
P_2011	Flood	Kampong Thom	Preaek Sambour	Preaek Sambour	2011/09		2				
P_2011	Flood	Kampong Thom	Preaek Sambour	Tang Vissou	2011/09		2				
P_2011	Flood	Kampong Thom	Preaek Sambour	Chhnu	2011/09		1				
P_2011	Flood	Kampong Thom	Sensou	Sensou	2011/09		1				
P_2011	Flood	Kampong Thom	Wary	Wary	2011/09		1				
P_2011	Flood	Kampong Thom	Bery	Preaek Chhri	2011/09		2				
P_2011	Flood	Kampong Thom	Bery	Chong Dong	2011/09		0				
P_2011	Flood	Kampong Thom	Kampong Ovar	Kampong Ovar	2011/09		0				
P_2011	Flood	Kampong Thom	Kampong Ovar	Preaek Loung	2011/09		1				
P_2011	Flood	Kampong Thom	Kampong Ovar	Ben Ke	2011/09		3				
P_2011	Flood	Kampong Thom	Kampong Ovar	Kampong Ovar	2011/09		2				
P_2011	Flood	Kampong Thom	Kampong Ovar	Thmei	2011/09		2				
P_2011	Flood	Kampong Thom	Kampong Ovar	Preaek Sambour	2011/09		1				
P_2011	Flood	Kampong Thom	Kampong Ovar	Preaek Sambour	2011/09		1				
P_2011	Flood	Kampong Thom	Bery	Wary	2011/09		1				
P_2011	Flood	Kampong Thom	Stoung	Chhannouk	2011/09		1				
P_2011	Flood	Kampong Thom	Stoung	Chhannouk	2011/09		4				
P_2011	Flood	Kampong Thom	Stoung	Chhannouk	2011/09		1				
P_2011	Flood	Kampong Thom	Stoung	Chhannouk	2011/09		4				
P_2011	Flood	Kampong Thom	Stoung	Kampong Chhannouk	2011/09		4				
P_2011	Flood	Kampong Thom	Stoung	Chhannouk	2011/09		4				
P_2011	Flood	Kampong Thom	Stoung	Preaek Loung	2011/09		1				
P_2011	Flood	Kampong Thom	Stoung	Chhannouk	2011/09		1				
P_2011	Flood	Kampong Thom	Kampong Ovar	Preaek Loung	2011/09		1				
P_2011	Flood	Kampong Thom	Sensou	Ngea	2011/09		1				
P_2011	Flood	Kampong Thom	Sensou	Chhannouk	2011/09		1				
P_2011	Flood	Kampong Thom	Sensou	Preaek Loung	2011/09		2				

5. Success Stories

5.1 Community Based Disaster Risk Management (CBDRM)

- . Builds upon existing capacities and coping mechanisms of communities to collectively design and implement appropriate and doable long-term risk reduction and disaster preparedness plans.
- . Involves the participation of local actors, particularly vulnerable communities.
- . Seen as the way forward in minimizing enormous loss of life, property and livelihood.
- Considers CBDRM as an integral part of its rural development program to alleviate poverty

5.2 Recent major projects on disaster risk reduction

- Project Implementation and Bird Flu Prevention (Avian and Human Influenza Control and Preparedness Emergency Project -AHICPEP)
- Implementation of Post-Ketsana Reconstruction Project
- Disaster Risk Reduction and Climate Change Adaptation Cooperation for 2013-2015 between NCDM and Caritas Cambodia
- Strengthening National and Sub-national Capacity to Implement Disaster Management towards Increased Community Resilience
- Disaster Risk Reduction (DRR) Forum

6. Challenges

What are the key challenges?

- Lack of appreciation on disaster risk management institutions;
- Lack of understanding of the importance of database/information based decision making of the decision maker
- Lack of appreciation and commitment to database and disaster information management promotion and use;
- Inadequate resources, manpower, professions and skills;
- Understanding of different level stakeholders (politician, technical planner and workers) database;
- Very limitation of resource allocation for Disaster Management Information System, (lack of human and financing resource).
- Systematic procedures and cooperation among NCDM, all line agencies and NGOs in implementation of DRM are not compatible.

7. *Suggestions and Recommendations*

- Donor Commitment to the development of national capacity on disaster information management and database;
- Supports from national and regional institutions on the process of capacity building; TA, hardware and software;
- Support country level building strong Government's institution for disaster information management and databases;
- Advocate to decision maker to use database and reliable disaster information for decision making;
- Capacity Building to National and Sub-National level. (Training of Trainer, National to Sub-National level).
- Looking for any projects: Pilot projects on Geo-reference Information System for DRM, Drought Monitoring, and Climate Change Pilot Project.
- Necessary equipments

Thank you very much for your kind attention!