



## Project for Strengthening Institutional and Policy Framework on DRR and CCA Integration [CN20 Project]

### Senior Official-Level Forum

16 November 2017, Jakarta, Indonesia

## Objectives of the CN20 Project

The aims of the project are:

- (i) Strengthen institutional and policy frameworks for DRR and CCA;
- (ii) Enhance the integrated planning for DRR through the implementation of **national development plans and action plans that integrate DRR and CCA at all level**; and
- (iii) **Build partnership** in linking DRR and CCA at all levels.

The specific objectives are:

- (a) Promote the development of umbrella laws and regulations that govern the integration and synchronisation of DRR and CCA in Member States;
- (b) **Foster relationships** between national ministries and agencies responsible for DRR and CCA;
- (c) Facilitate the establishment of a clear institutional and policy framework on DRR and CCA integration in Member States;
- (d) Strengthen participatory **risk assessment**, incorporating disaster and climate risks as a basis for decision-making;
- (e) Promote the development of joint funding mechanisms for both DRR and CCA at the national level; and
- (f) Support **joint training, meetings**, and other opportunities for increased interaction and cooperation.

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## Expected Outputs of the CN20 Project

Expected output	Activity
1. Documentation of <b>good practices</b> in institutional strengthening and policy development on linking DRR and CCA in ASEAN Member States	1.1. <b>National workshop</b> on <i>good practices in integrated plan and policy development, funding mechanisms; and risk assessments for DRR and CCA</i> in the Member States 1.2. <b>Identification of common approaches</b> to strengthen institutional and policy development for DRR and CCA 1.3. <b>Synthesis, analysis and recommendations</b> 1.4. Drafting and publication of One Against Disaster and Climate Risks
2. <b>Assessment</b> of the implementation of national action plans on DRR and CCA and the effectiveness of national platforms	2.1. <b>National workshop</b> to review the progress of the implementation of the national action plan on DRR and CCA 2.2. Organisation and conduct of <b>a regional forum</b> on the progress and lessons learned by the Member States 2.3. Documentation of the outcomes of national workshops and the regional forum
3. <b>Senior official-level roundtable discussions</b> on policy and programme interventions to strengthen the connection and coherence of DRR and CCA efforts at all level	3.1. Preparatory meetings for the senior official-level forum, including arrangement with media 3.2. Holding of <b>the senior official-level forum</b> with broadcast media coverage

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## Implementation Flow of the CN20 Project

2 <sup>nd</sup> Project Steering Committee	July 27, 2016, Bangkok	[Inception Report]
1 <sup>st</sup> Field Study	Aug 1-12, <b>Thailand</b> ; Aug 15-26, <b>Lao PDR</b>	<b>Baseline study</b>
2 <sup>nd</sup> Field Study	Sep 19-30, <b>Myanmar</b> ; Oct 3-14, <b>Cambodia</b>	
3 <sup>rd</sup> Field Study	Nov 14-25, <b>Viet Nam</b> ; Nov 28-Dec 7, <b>Malaysia</b> ; Dec 8-9, <b>Singapore</b> ; Dec 12-14, <b>Brunei Darussalam</b>	
3 <sup>rd</sup> PSC Meeting	Dec 7, <b>Vientiane</b>	
4 <sup>th</sup> Field Study	Jan 9-20, 2017, <b>Indonesia</b> ; Jan 23-Feb 3, <b>the Philippines</b>	
4 <sup>th</sup> PSC Meeting	March 1, <b>Bangkok</b>	[Draft Progress Report]
30 <sup>th</sup> ACDM Meeting	April 4, <b>Vientiane</b>	[Progress Report]
<b>National Workshops</b>	<b>May 31, Myanmar; July 6, Viet Nam; July 12, Philippines</b>	
5 <sup>th</sup> & 6 <sup>th</sup> PSC Meetings	July 6 & Sep 4, <b>Bangkok</b>	
<b>Regional Forum</b>	<b>Sep 5-6, Bangkok</b>	<b>Draft Work Plan</b>
31 <sup>st</sup> ACDM Mtg, 5 <sup>th</sup> AMMDM	Oct 17-19, <b>Lao PDR</b>	<b>Endorsement of the Work Plan</b>
7 <sup>th</sup> PSC Meeting	Nov 15, <b>Jakarta</b>	<b>We are here!</b>
<b>Senior Official-Level Forum</b>	<b>Nov 16, Jakarta</b>	
8 <sup>th</sup> PSC Meeting	Dec, <b>Bangkok</b>	[Draft Final Report]

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## Assessment Framework of DRR and CCA Integration

Assessment category		Evaluation criteria
<b>1. Laws, regulations and policies</b>	1) National development plan	<ul style="list-style-type: none"> <li>• DRR and CCA concepts are incorporated</li> <li>• DRR, CCA and relevant sectoral laws, regulations and policies are enforced</li> <li>• DRR and CCA are mainstreamed in each ministry's policies</li> </ul>
	2) DRR laws	
	3) CCA laws	
	4) Relevant sectoral laws	
<b>2. Institutional arrangement</b>	1) National DRM system	<ul style="list-style-type: none"> <li>• National DRM and CCA committees have been set up for inter-ministerial coordination</li> <li>• A multi-stakeholder transboundary DRM system has been set up</li> </ul>
	2) National CCA system	
	3) Transboundary DRM	
<b>3. Financial arrangement</b>	1) Funding for DRR	<ul style="list-style-type: none"> <li>• Funds are allocated for DRR and CCA activities with a monitoring and tracking system</li> <li>• PES is implemented based on the economic evaluation</li> </ul>
	2) Funding for CCA	
	3) Payment for ecosystem services (PES)	
<b>4. Risk assessment</b>	1) Disaster database	<ul style="list-style-type: none"> <li>• Disaster database is recorded and used for science-based analysis</li> <li>• Climate risk is analysed based on hydro-meteorological data monitoring and downscaling from Global Climate Models</li> <li>• Hazard and risk maps are prepared by assessing the damages of past disasters and the capacity and vulnerability of local authorities</li> </ul>
	2) Hydro-meteorological data management and climate risk analysis	
	3) Hazard and risk mapping	
	4) Data sharing and dissemination	

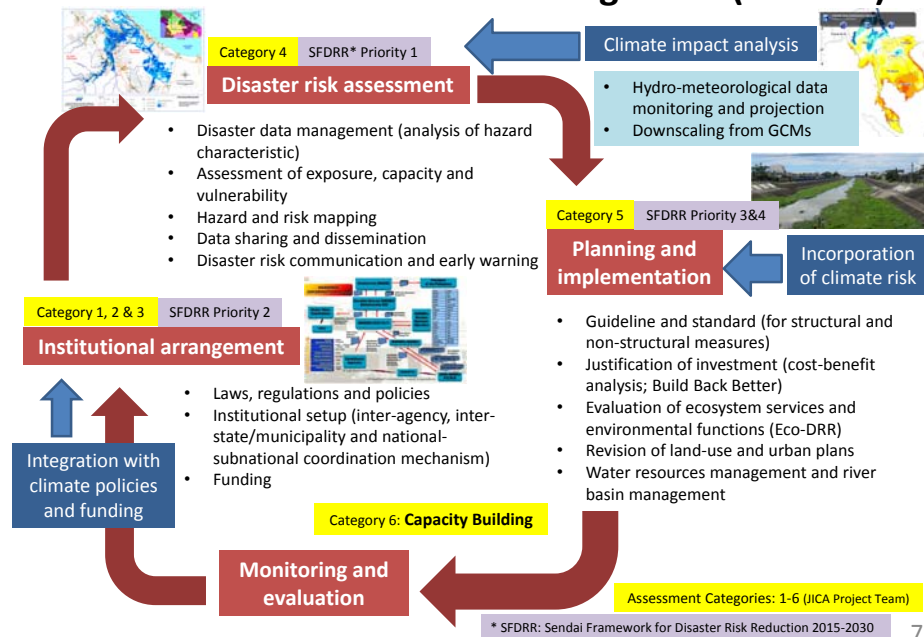
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## Assessment Framework of DRR and CCA Integration

Assessment category		Evaluation criteria
<b>5. Planning and implementation</b>	1) Guideline and standard	<ul style="list-style-type: none"> <li>• Guidelines and standards incorporating disaster and climate risk are developed and used</li> <li>• Land-use and urban plans are prepared by incorporating disaster and climate risk and with evaluation of ecosystem services</li> <li>• Public and private investments are channelled to strengthen resiliency of critical facilities, including schools, hospitals, evacuation facilities, roads and transport, river and coastal dykes, reservoirs and irrigation networks, forests and retardation areas, etc., and they are implemented in a stage-wise manner</li> <li>• Drought risk reduction measures including water resources management and agricultural measures are implemented</li> </ul>
	2) Land-use and urban planning	
	3) Disaster-resilient Investment	
	4) Drought risk reduction	
<b>6. Capacity building</b>	1) DRR and CCA training	<ul style="list-style-type: none"> <li>• DRR and CCA trainings for national and local government officials and other stakeholders are provided</li> <li>• Special training programmes are implemented for specific purposes such as a climate school for farmers</li> </ul>
	2) Sector-wise training	

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## Framework of DRR and CCA integration (for DRR)



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## Main Findings of the Field Study in ASEAN (1)

Category	Evaluation (and issues)
<b>1. Laws, regulations and policies</b>	<ul style="list-style-type: none"> <li>• DRR and CCA concepts are incorporated individually in national development plans except in the Philippines and Lao PDR wherein both concepts are integrated</li> <li>• Legal framework for DRR and CCA is <i>composed of several legal documents but not integrated</i> in all Member States.</li> </ul>
<b>2. Institutional arrangement</b>	<ul style="list-style-type: none"> <li>• Vertical and horizontal DRM systems and CCA systems and related legal frameworks have been developed in all Member States. However, <i>integration of those systems and legal frameworks is lacking or insufficient</i>. <a href="#">Indonesia</a> and <a href="#">Malaysia</a> have better conditions in these aspects.</li> </ul>
<b>3. Financial arrangement</b>	<ul style="list-style-type: none"> <li>• <i>Funding for DRR and CCA activities is insufficient</i> in general. Better countries are <a href="#">Indonesia</a> and <a href="#">the Philippines</a> for DRR and CCA and <a href="#">Viet Nam</a> for forest management.</li> </ul>
<b>4. Risk assessment</b>	<ul style="list-style-type: none"> <li>• Some countries have developed <a href="#">disaster database</a> including Cambodia, Indonesia, Malaysia, the Philippines, Thailand and Viet Nam.</li> <li>• All Member States have hydro-meteorological data management system. However, <i>some countries have a problem of insufficient coverage of the observation stations such as in upstream river basins and rural areas</i>. Countries of better condition are Malaysia, Singapore, Thailand and Viet Nam. <i>Hydro-meteorological data sharing of international rivers is insufficient</i> (except in the Lower Mekong River).</li> </ul>

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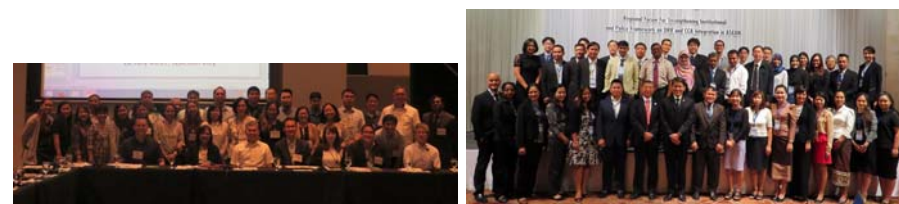
## Main Findings of the Field Study in ASEAN (2)

Category	Evaluation (and issues)
4. Risk assessment (cont.)	<ul style="list-style-type: none"> <li>Some countries have <u>downscaled from GCMs</u> including Indonesia, Malaysia, the Philippines, Singapore and Viet Nam. <i>There are no standard values of climate change impacts set in the Member States yet.</i></li> <li><u>Flood hazard maps or risk maps</u> without incorporating climate risk are prepared in Brunei Darussalam, Malaysia, the Philippines, Thailand and Viet Nam, but <i>their resolution is insufficient for DRR and preparedness planning</i> in general. Malaysia and Viet Nam have prepared flood hazard maps with climate change impacts in some areas. <u>Hazard maps or risk maps of landslide are generally insufficient</u> (relatively better countries: Indonesia, the Philippines and Thailand). <i>Storm surge and drought hazard maps or risk maps are generally insufficient.</i></li> </ul>
5. Planning and implementation	<ul style="list-style-type: none"> <li><u>DRR planning and implementation without considering CC impacts are insufficient</u> in general (better country: Malaysia). <i>DRR planning and implementation with CCA is lacking or insufficient</i> in general (countries with good practices or potential good ones: Brunei Darussalam, Indonesia, the Philippines, Singapore and Viet Nam). <i>Guiding tools for planning and implementation including the related risk assessment etc. is lacking.</i></li> </ul>
6. Capacity building	<ul style="list-style-type: none"> <li><u>Integrated DRR and CCA training is rarely conducted</u> except in Indonesia. Community-based DRM are conducted in most Member States. Climate field schools which train farmers to use weather forecast for agriculture are successful in Indonesia, Myanmar and the Philippines.</li> </ul>

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## Results of the National Workshops Myanmar – May 31 Viet Nam – July 6 Philippines – July 12 and the Regional Forum, 5-6 Sep 2017



### Main outputs of the National WS in Myanmar (May 31, 2017)

Key issues and necessary actions in Myanmar	Expectations to ASEAN
<b>Laws/ Regulations/ Policies</b> <ul style="list-style-type: none"> <li>Integration of DRR and CCA policies and plans</li> <li>Development of relevant sectoral laws and regulations</li> </ul>	<ul style="list-style-type: none"> <li>Clarification of the effect of DRR and CCA integration in other ASEAN countries</li> </ul>
<b>Institutional Arrangement</b> <ul style="list-style-type: none"> <li>National coordination mechanism (<u>weak coordination</u>) and cooperation among implementing activities, particularly for river basin management from upstream to downstream to manage flood, drought and landslide risks and sedimentation)</li> <li><u>Mainstreaming DRR and CCA</u> in each ministry (by <u>appointing a focal unit in each department</u> and exchanging staff between the RRD and line ministries)</li> <li>Strengthening the functions of committees at <u>district and township levels</u> to deal with DRR and CCA issues</li> </ul>	<ul style="list-style-type: none"> <li>Coordination mechanism for DRR and CCA integration</li> </ul> <p><b>Knowledge sharing on good practices of policies, institutional arrangement and funding</b></p>
<b>Funding</b> <ul style="list-style-type: none"> <li><u>Insufficient funds for DRR activities</u> in line ministries (the National Disaster Management Fund is mostly for response, recovery and reconstruction; not for prevention and mitigation)</li> <li><u>Lack of funds for CCA</u></li> <li>Budget tagging of DRR and CCA expenditures</li> <li>No payment system for environmental conservation</li> </ul>	<ul style="list-style-type: none"> <li>Resource mobilisation methods in other ASEAN countries</li> <li>Fund raising by an ASEAN-wide approach</li> </ul>

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<b>Risk Assessment</b> <ul style="list-style-type: none"> <li>Integration of disaster database with all sectors</li> <li>Improved hydro-met monitoring system for flood and drought (incl. groundwater monitoring)</li> <li>Climate risk analysis capacity incl. downscaling from GCMs</li> <li>Monitoring system for landslide</li> <li>Insufficient hazard maps and risk maps</li> <li>Improved <u>data accuracy and reliability</u></li> <li>Dam safety against floods; flood risk assessment for each basin</li> <li>Improved early warning and communication systems at local level</li> <li>Require cost-benefit analysis of DRR and CCA expenditures <u>to justify the investment</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Data sharing among ASEAN countries</u> with a unified standard (by establishing a regional responsible body) <u>Regional climate models</u> for ASEAN</li> <li>Hazard mapping and risk assessment technology</li> <li>Flood risk assessment for dam safety</li> <li>Salinity intrusion monitoring and analysis</li> <li><u>Cost-benefit analysis of DRR and CCA expenditures</u></li> </ul> <p><b>Justification of DRR and CCA investment</b></p> <p><b>risk assessment methods and technology</b></p>
<b>Planning and Implementation</b> <ul style="list-style-type: none"> <li>Sectoral planning capacity of each ministry</li> <li><u>Climate and disaster resilient design</u> of infrastructures (for reducing the long-term maintenance cost)</li> <li><u>Urban and land-use plan</u> with DRR and CCA</li> <li>Slope protection methodology</li> <li><u>Catchment (river basin) management against drought</u>; water storage facilities</li> <li>Climate smart agriculture, crops diversification</li> </ul>	<ul style="list-style-type: none"> <li>To develop <u>guiding tools</u> for integrating DRR and CCA (and build capacity by implementing a pilot project using it)</li> <li>Slope protection pilot projects</li> <li>Climate smart agriculture</li> </ul> <p><b>Guiding tools for climate and disaster resilient design</b></p>
<b>Capacity Building</b> <ul style="list-style-type: none"> <li><u>Education</u> of DRR and CCA; development of curriculums for schools</li> <li><u>Public awareness</u> with easy to understand materials</li> <li><u>Training of trainers</u> and experts</li> <li>Usage of <u>ICT equipment</u></li> </ul>	<ul style="list-style-type: none"> <li>Training and capacity building Technical assistance</li> <li>Exchange program</li> </ul> <p><b>Training opportunities; education and public awareness</b></p>

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## Main outputs of the National Workshops in Myanmar, Viet Nam and the Philippines

Category	Necessary national activities	Expected regional activities
<b>Institutional development</b>		
Policies, laws and regulations	<ul style="list-style-type: none"> <li>• Strict issuances of environment compliance certificate, building permits, no build zones and safe zones;</li> <li>• Development of relevant sectoral laws and regulations;</li> <li>• Integration of DRR and CCA policies and plans</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Share the effects of DRR and CCA integration</b></li> </ul>
Management system	<ul style="list-style-type: none"> <li>• Strict implementation of integrated water resources management (IWRM) through coordination of relevant agencies;</li> <li>• River basin management for drought, flood and landslide risk and sedimentation management;</li> <li>• Coordination between DRR and CCA national committees and the focal points;</li> <li>• Mainstreaming DRR and CCA in each ministry by appointing a focal unit;</li> <li>• Strengthening the functions of subnational committees for DRR and CCA</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Share coordination mechanisms of DRR and CCA integration</b></li> </ul>
Financial arrangement	<ul style="list-style-type: none"> <li>• Increase funds for DRR and CCA activities;</li> <li>• Budget tagging of DRR and CCA expenditures;</li> <li>• Develop a payment system for environmental conservation</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Share resource mobilisation methods;</b></li> <li>• <b>Fund raising by an ASEAN-wide approach</b></li> </ul>

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## Risk assessment

Data management	<ul style="list-style-type: none"> <li>• Set up a central database and a data sharing system through coordination of relevant agencies;</li> <li>• Upgrade and increase the coverage of hydro-meteorological monitoring system (groundwater monitoring system too) and mobilise social capital and private funds for that</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Establish standardised database and a data sharing system;</b></li> <li>• <b>Share experiences on database development and management</b></li> </ul>
Climate risk analysis	<ul style="list-style-type: none"> <li>• Build capacity on sectoral climate impact modelling and socio-economic impact analysis;</li> <li>• Improve climate risk analysis capacity including downscaling from global climate models</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Share climate risk assessment and modelling methodologies;</b></li> <li>• <b>Standardise the methodologies;</b></li> <li>• <b>Develop a regional climate model</b></li> </ul>
Hazard and risk mapping	<ul style="list-style-type: none"> <li>• Integration of climate projections to geo-hazard maps;</li> <li>• Provision of high resolution base maps covering the entire country;</li> <li>• Provision of simplified guidelines and standards for hazard mapping and risk assessment;</li> <li>• Capacitate subnational governments' access and usage of database and tools;</li> <li>• Monitoring system for landslide</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Share hazard mapping and risk assessment technologies;</b></li> <li>• <b>Share salinity intrusion monitoring and analysis system</b></li> </ul>

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## Planning and implementation

Guideline and standard	<ul style="list-style-type: none"> <li>• Update sectoral design, guideline and standard incorporating climate risk;</li> <li>• Translate climate projection to flood return periods;</li> <li>• Improve dam safety against floods;</li> <li>• Train national and local government officials to capacitate designs of water-related structures;</li> <li>• Updated training programmes for community-based DRM based on past experiences</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Share guidelines, standards, planning methods and good practices and benchmark it;</b></li> <li>• <b>Share dam management protocols and flood risk assessment methods;</b></li> <li>• <b>Experts exchange programmes and cross-visits for learning and actual observation</b></li> </ul>
Land-use and urban planning	<ul style="list-style-type: none"> <li>• Strengthen monitoring and evaluation of local development plans in accordance with the comprehensive land-use plan, zoning ordinance and national building code</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Share monitoring and evaluation mechanism of land-use plan, zoning ordinance and building code</b></li> </ul>
Disaster resilient investment	<ul style="list-style-type: none"> <li>• Further promotion of forest protection and rehabilitation;</li> <li>• Prioritisation of development projects based on risk levels;</li> <li>• Cost-benefit analysis of DRR and CCA expenditures to justify the investment</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Training for geo-technical measures for flood- and landslide-prone areas; slope protection methods;</b></li> <li>• <b>Capacity building for coastal zone management;</b></li> <li>• <b>Share cost-benefit analysis of DRR and CCA measures</b></li> </ul>

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## Main points discussed at the Regional Forum

### Formulation of the Work Plan:

- Objectives
- Roles and responsibilities of:
  - ACDM Working Group on Prevention and Mitigation
  - Each ACDM focal point
- Items to be reported by the ACDM focal point annually
- Immediate collaborative activities
  - What/which good practices is useful for sharing? What do you want to learn from others?
  - What kind of facilitation mechanism do you want? Do you want to visit other Member States? Can you accept requests from others?
  - What kind of capacity building is the priority? What kind of technical assistance is needed?
  - What data sharing is beneficial?
  - What experiences/support/supply you can share?

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CHAIRMAN'S STATEMENT OF THE  
SIXTH MEETING OF THE CONFERENCE OF THE PARTIES TO THE ASEAN  
AGREEMENT ON DISASTER MANAGEMENT AND EMERGENCY RESPONSE AND  
THE FIFTH ASEAN MINISTERIAL MEETING ON DISASTER MANAGEMENT

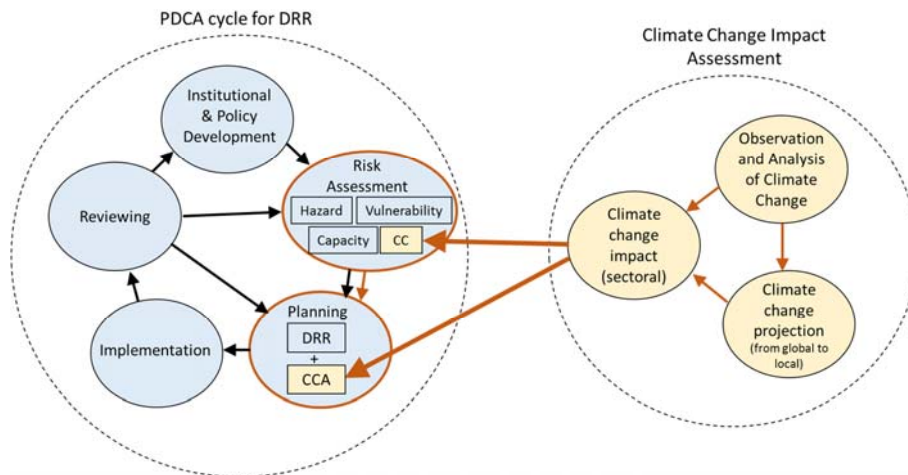
19 October 2017  
Luang Prabang, Lao PDR

4. The Ministers noted with satisfaction the accomplishment across all the priority programmes of the AADMER 2016-2020 Work Programme that include the adoption of the Risk and Vulnerability Assessment Guidelines, the AADMER Monitoring and Evaluation Framework, the convening of the 1st ASEAN Recovery Forum, the Framework for ASEAN Standardisation and Certification for Expertise on Disaster Management (ASCEND), the completion of the Disaster Emergency Logistic System of ASEAN (DELSA) Phase I Project, completion of the ASEAN Disaster Risk Financing and Insurance (DRFI) Programme Phase 1, Development of the Guideline for Urban Resilience, [the Work Plan for Strengthening Institutional and Policy Framework on Disaster Risk Reduction and Climate Change Adaptation](#), as well as the convening of the 2017 ASEAN Strategic Policy Dialogue on Disaster Management.

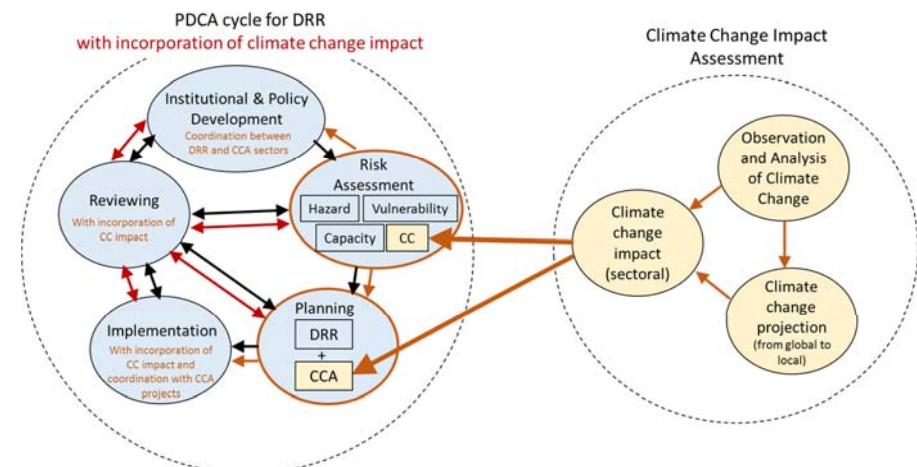
## Work Plan for Strengthening Institutional and Policy Framework on DRR and CCA Integration

Endorsed by the 31<sup>st</sup> ACDM Meeting  
on 17 October 2017 in Luang Prabang, Lao PDR

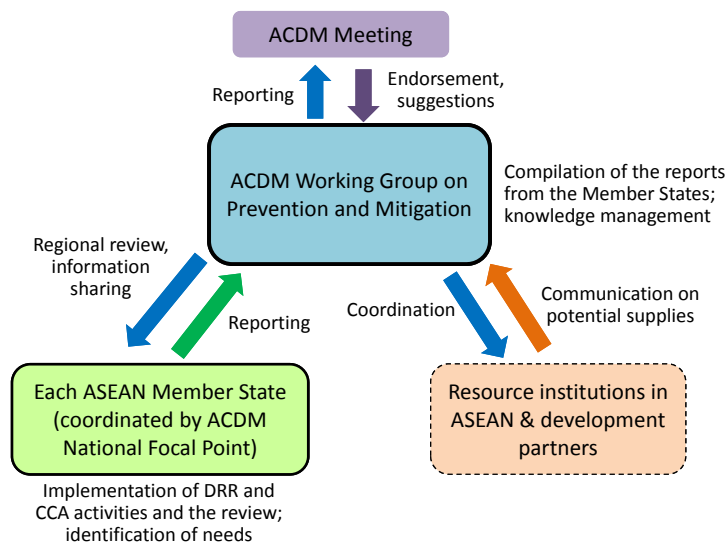
### Schematic Image of DRR and CCA Integration



### Schematic Image of DRR and CCA Integration



## Implementation Structure of the Work Plan



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## 1. Institutional and policy development

### 1-1 Policies, laws and regulations

Category	Review point	Status and progress
<b>National socio-economic development plan</b>	DRR and CCA concepts are incorporated in the <b>national socio-economic development plan</b> and the prospect in a new plan	
<b>DRR and CCA laws and regulations</b>	<b>DRR-related laws and regulations</b> are enacted and enforced with consideration of CCA; DRR is mainstreamed in each ministry's policies	
	<b>CCA-related laws and regulations</b> are enacted and enforced with consideration of DRR; CCA is mainstreamed in each ministry's policies	
<b>DRR and CCA related sectoral laws and regulations</b>	DRR and CCA concepts are incorporated in relevant <b>sectoral laws and regulations</b> pertaining to land-use and urban plans, building codes, water resources and river basin management, forestry management, etc.	

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### 1-2 Management system

Category	Review point	Status and progress
<b>National and sub-national DRR and CCA management systems</b>	A <b>national DRM committee</b> has been setup for inter-ministerial coordination which also coordinates with the national CCA committee	
	A <b>national-subnational DRM system</b> has been setup for integrated DRM; Number of local governments that integrate DRR and CCA in their development plans	
	A <b>national CCA committee</b> has been setup for inter-ministerial coordination which also coordinates with the national DRM committee	
	A <b>transboundary DRM system</b> has been setup for flood, storm, landslide and drought by engaging multiple agencies and local governments	

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### 1-3 Financial arrangement

Category	Review point	Status and progress
<b>Regular budgetary arrangements of line ministries for DRR and CCA</b>	<b>Regular budget</b> is sufficiently allocated for DRR and CCA activities in each ministry/agency; A <b>budget tagging</b> or <b>monitoring system</b> for DRR- and CCA-related expenditures is introduced	
<b>Special funds for local and community-based DRR and CCA activities</b>	Special funds are allocated for <b>local and community-based DRR and CCA</b> activities	
<b>Payment for ecosystems (PES) and insurance scheme</b>	<b>PES</b> is implemented based on the economic assessment (relevant regulations; number of sites; budget; engagement of the private sector and communities, etc.)	
	<b>Insurance scheme</b> for agricultural products is implemented based on the economic assessment (number of the schemes; coverage areas; budget, etc.)	

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## 2. Risk assessment

### 2.1 Climate change impact assessment

Category	Review point	Status and progress
<b>Observation and analysis of hydro-meteorological data</b>	<b>Disaster data</b> is recorded and used for science-based analysis (data sharing and monitoring system; number of hydro-meteorological observation stations and their coverage; manual, automatic or telemetric system)	
<b>Climate change projection</b>	<b>Climate risk</b> is analysed based on hydro-meteorological data monitoring and downscaling from Global and Regional Climate Models (GCMs and RCMs)	
	<b>Scenario for climate change</b> (rainfall, sea level rise, etc.) is developed	
<b>Standard values of CC impact</b>	<b>Standard values of climate change impact</b> is determined with the aerial coverage	

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## 2.2 Hazard and risk mapping

Category	Review point	Status and progress
<b>Hazard and risk mapping of flood, storm surge, landslide and drought</b>	<b>Hazard maps and risk maps</b> for flood, storm surge, landslide and drought are prepared by assessing the damages of the past disasters, the capacity and vulnerability of local authorities and communities, and the climate risk and these maps are provided <b>with high resolution for local land-use planning</b> (coverage area; scale; accuracy; with/without climate change impact assessment)	

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## 3. Planning and implementation

### 3.1 Disaster risk reduction

Category	Review point	Status and progress
<b>DRR plans and projects for flood, storm, landslide and drought with incorporation of climate change impact assessment</b>	<b>DRR plans</b> for flood, storm and landslide are developed and implemented with structural and non-structural measures with incorporation of climate change impact assessment	
	<b>Land-use and urban plans</b> are prepared by incorporating disaster and climate risk and with an assessment of ecosystem services	
	<b>Public and private investments</b> are channelled to strengthen resiliency of critical facilities, including schools, hospitals, evacuation facilities, roads and transport, river and coastal dykes, reservoirs and irrigation networks, forests and retardation areas, etc., and they are implemented in a stage-wise manner	
	<b>Drought risk reduction plans</b> including water resources management and agricultural measures are implemented	

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### 3.2 Standard guidelines for disaster and climate risk assessment and planning

Category	Review point	Status and progress
<b>Standard guidelines for disaster and climate risk assessment and planning</b>	<b>Guidelines and standards</b> incorporating disaster and climate risk are developed and used for planning	

## 4. Monitoring and evaluation

### 4.1 Data management

Category	Review point	Status and progress
<b>Data management</b>	Basic <b>disaster, hydro-meteorological, risk, vulnerability and socio-economic data</b> are updated periodically and shared with relevant agencies for synthetic analysis and decision-making	

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## 4.2 Reviewing

Category	Review point	Status and progress
Reviewing	DRR and CCA related plans and activities are <b>periodically reviewed</b> for close coordination and knowledge sharing among relevant agencies	

## 4.3 Capacity building and needs assessment

Category	Review point	Status and progress
Capacity building and needs assessment	Based on the reviewing results, <b>capacity building needs are identified</b> and <b>corresponding training programmes are arranged</b> using domestic resources; other required external technical assistances and identified resource institutions and agencies possible to provide capacity building services regionally are reported to the ACDM Working Group on Prevention and Mitigation	

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## Work Plan: Agreed immediate collaborative activities

Knowledge sharing and training on: (Possible contribution and expectation)	Targets	Planned activities	
		2018	2019-2020
Capacity building for <b>planning and implementation</b> of measures for flood, storm, landslide and drought hazards with focus on spatial approaches for <b>risk assessment and risk mapping</b> at the local level			
Integration of DRR and CCA <b>laws and regulations</b> , where applicable, with <b>coordination of relevant agencies</b> for the effective implementation at the national and sectoral level			
Building capacity for <b>accessing regional and global funds</b> for integrating DRR and CCA			
Measures to <b>share skills, knowledge and data</b> on climate change impacts, implementation of river basin management, countermeasures for climate change impacts including policies			
Developing <b>guidelines and tools with indicators</b> for <b>monitoring and evaluation</b> of programmes, policies and projects on integration of DRR and CCA			

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