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Overview of Improving Capacity on Integrated Coastal Management with Low Impact Development Considering Environmental Sustainability and Climate Change in Coastal Area of Cambodia (CLID) Project

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INTRODUCTION

- Urbanization is related to the climate change issue in at least two ways (WMO, 1996):
 - 1. A major source of greenhouse gases through energy consumption and transportation
 - 2. The rapidly increasing urban populations => use more and more marginal land => potential impacts of climate change
- Integration of climate change mitigation and adaptation into urban planning
 - => maintain the sustainable development of emerging cities (i.e., coastal area)
- Need to improve the capacity on integrated coastal management (ICM) with low impact development (LID).
- The urban planning process => integrated with green infrastructure, ecosystem-based adaptation, and LID => improve the living conditions and renature the city landscape.

OBJECTIVE

To support integrating best practices in LID with urban planning through scenario evaluation platforms, workshops, and instruction materials that involve the participation of city planners, policymakers, practitioners, and citizens. The sub-objectives are:

- **1.Develop resources to support the decision-making process** (in the analysis of the best and suitable LID scheme to implement and integrate into the urban planning process in the coastal area of Cambodia);
- 2.Improve the participation of urban residents in evaluating suitable LID and its practices for the urban environment;
- 3. Support dissemination of best practice in the integration of LID in urban planning processes focused on climate change adaptation and efficient water management;
- 4.Foster **knowledge exchange forums** among academia, practitioners, decision-makers, and local people through discussion forums in the dissemination workshop.

METHODOLOGY

Dr. THENG

Vouchlay

• Target area: coastal areas of Cambodia including 4 provinces in Koh Kong, Sihanouk Ville, Kampot, and Kep cities.

Working Group Arrangement

WG-I: Urban Storm Water Modeling and scenario analysis for LID

Lead by: Dr. Pen Sytharith

Members: Kong, Ratha, Lengthong, Sophal, Kimchhin

WG-II: Sea-level rise analysis and impact in

coastal area

Lead by: Dr. Doung Ratha

Members: Rattana, Lengthon, Sytharith, Sylvain,

Sophal, Sophea

CCCA3-CLID
Project Manager

WG-III: Climate Change Data Analysis and Impact
Analysis

Lead by: Dr. Chhin Rattana

Members: Sophal, Sophea, Raksmey, Sytharith

Accountant:
Ms. Ou Vongvitou

WG-IV: Baseline and Endline Survey (RUA)

Lead by: Dr. SOK Kimchhin

Members: Phanith, Raksmey, Sophea, Vira, Vanny

WG-V: Capacity building, workshop, and dissemination

Lead by: Dr. Chou Phanith

Members: Vouchlay, Kong, Sophea, Raksmey, Vanny,

Rattana

Workplan												
Output	Activity	Responsi ble party	2021		2022				2023			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
evaluating suitable LID	Literature review about ICM and LID	All		×								
	Data collection + model set up	ITC researchers		×	×	×	×	×	×	×	×	×
	Scenario analysis	All					×	×	×			
	Write paper + Journal proceeding	All								×	×	×
rise inundation	Tide observation + field data collection	ITC + IRD + KU researchers		×	×	×	×	×	×	×	×	×
	Sea-level rise estimation for Cambodian coastline	ITC + IRD + KU researchers				×	×					
	Construct sea-level rise inundation maps	ITC + IRD + KU researchers					×	×	×			
tion, and training workshop s Publicatio n, report, and training	Baseline survey on knowledge of LID among related people	RUA research team		×								
	Forum discussion + Dissemination Workshop in Kep	All									×	
	Training and engagement Workshops	All						×				×
	Endline survey on knowledge of LID among related people	RUA research team										×
	Archive journal publication, training material, and report development	ITC researchers									×	×
	Submit final report to GSSD	ITC researchers										×

RESULT FRAMEWORK

Output 1. Tool for evaluating suitable LID

- => 4 scenario models set up for Khemara Phumin, Sihanouk Ville, Kampot, and Kep cities
- => 1 scientific publication

Output 2. Sea-level rise inundation map for coastal area

=> 1 map of sea-level rise inundation in coastal area

Output 3. Forum discussion, dissemination, and training workshops on integration of coastal management with LID in city planning process

=> 200 people (policymakers, practitioners, urban planners, local governors, and local people) attending the workshop.

Output 4. Publication, reports, manual, and training materials

=> 1 scientific publication + 1 model manual for scenario evaluation + 1 LID practice manual + 1 urban planning policy = 4 document