

# **Technology Needs in Asia: Lessons from Technology Needs Assessment (TNA) Project in Asia**

**Presentation by  
AIT TNA Mitigation Team**

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# Outline

- Introduction
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# Introduction

- Country-driven activities that identify and determine the mitigation and adaptation technology priorities of countries.
- Central to the work of Parties to the Convention (article 4.5 UNFCCC).
- AIT is the regional centre for Asia and Eastern Europe.
- Global Coordination: Unit RisØe Center, Denmark
- Funded by: GEF

# Participating Countries

## Round one countries

Bangladesh

Cambodia

Georgia

Indonesia

Thailand

Vietnam

## Round two countries

Azerbaijan

Bhutan

Kazakhstan

Lao PDR

Moldova

Mongolia

Nepal

Sri Lanka

# Objectives

- To identify and prioritize technologies that can contribute to climate change mitigation goals of the participating countries through country-driven participatory processes, to help them in meeting their national sustainable development goals and priorities;
- To identify barriers hindering the acquisition, deployment, and diffusion of prioritized technologies; and
- To develop Technology Action Plans (TAP) specifying activities and enabling frameworks to overcome the barriers and facilitate the transfer, adoption, and diffusion of selected technologies in the participating countries.

# Expected Outputs

## Tangible:

- TNA Report
- TAP Report

## Intangible:

- Capacity building on tools such as MCDA, FICAM, etc
- Networking

# Sector and Technologies Prioritization

## Prioritized sectors by selected countries

- Energy (Indonesia, Bangladesh, Vietnam, Thailand)
- Transport (Vietnam)
- Agriculture (Bangladesh, Vietnam)
- Forestry (Vietnam, Indonesia)

# Prioritized Technologies by Priority Sectors

## **Energy sector** (Indonesia, Bangladesh, Vietnam, Thailand)

- Solar technologies
- Wind power system
- Smart grid system

## **Transport sector** (Vietnam)

- Bus rapid transport

## **Agriculture sector** (Bangladesh, Vietnam)

- Methane emission mitigation from manure management and rice fields
- Classic tillage, no organic fertilizer

## **Forestry sector** (Vietnam, Indonesia)

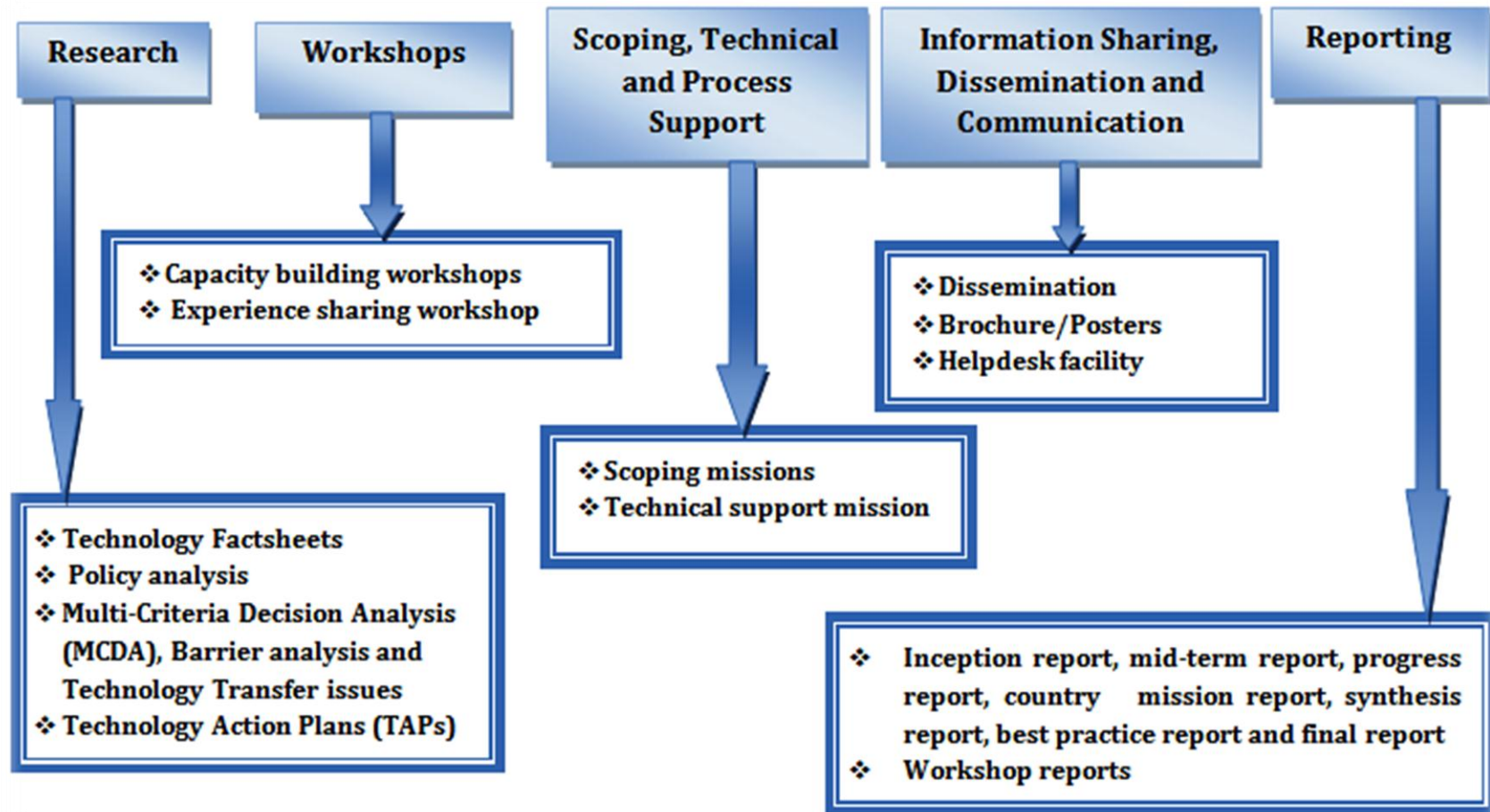
- Sustainable forest management
- Rehabilitation of mangrove



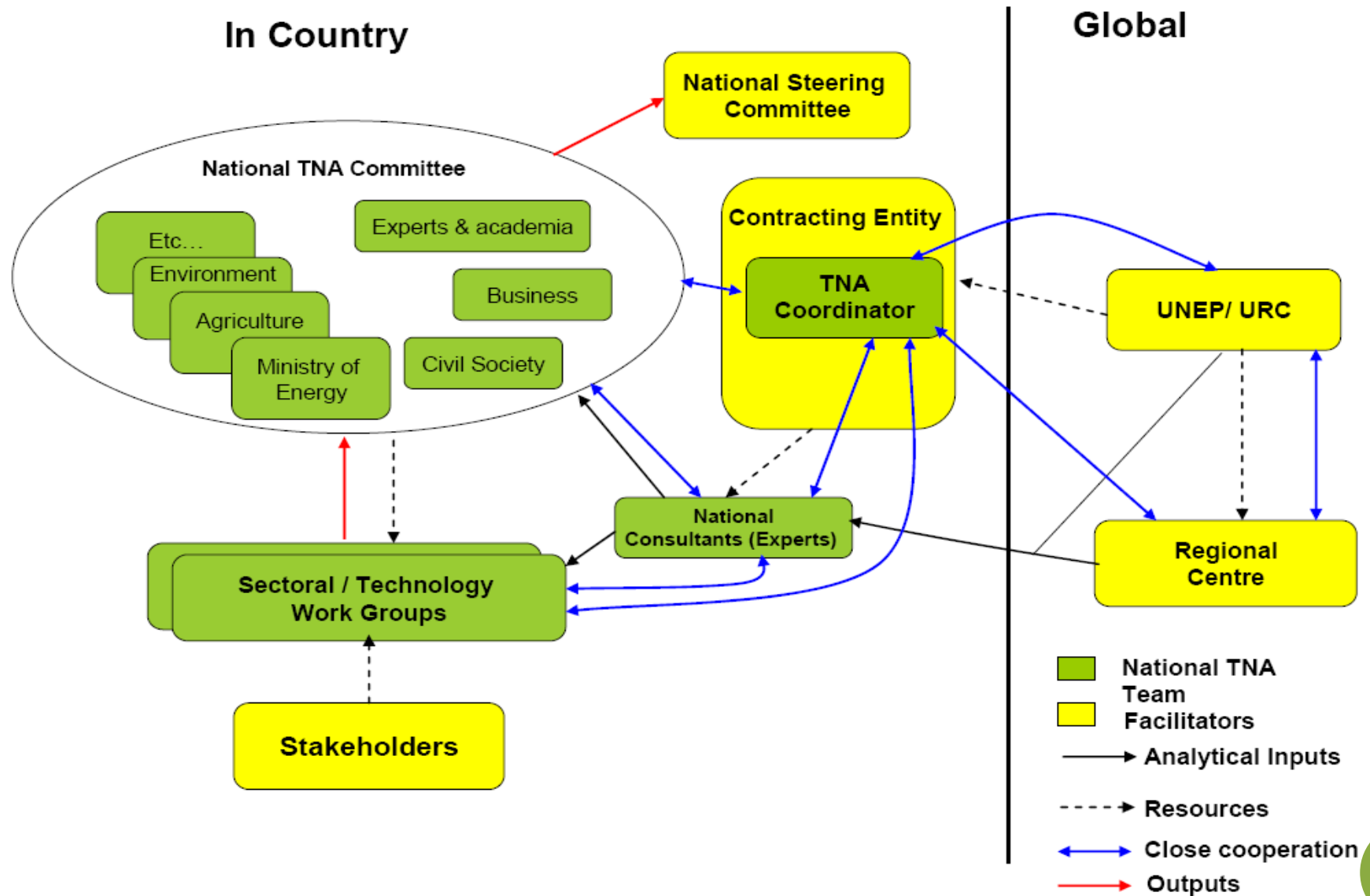
# Main Barriers

- **Financial**
  - High investment cost
- **Policy and Regulation**
  - There is no technology road map
- **Technology**
  - Technology is not available and must be imported
- **Capacity building**
  - Lack of fundamental knowledge on technology, infrastructure design, and maintain system

# Regional Center Project Activities



# TNA: INSTITUTIONAL STRUCTURE



# Lessons Learned

## **Participatory approach is necessary to make the implementation process robust**

- Stakeholder involvement and consensus for identifying sectors and technologies for deciding the action plan.
- Participatory approach helped the countries to prioritize technologies not only on cost basis but also on their contribution to country's sustainable development goals.
  - *Realistic outputs (prioritized sectors and technologies) through participatory approach considering multi-criteria analysis including and development goals as criteria.*

# Lessons Learned

**Technical Support to countries is essential for successful Implementation of the project.**

- Regional capacity building workshop provided a platform for skill development and knowledge sharing for the national coordinator and the consultants.
- Technical support mission to counties proved useful for comprehensive solution to uncertainties.

# Technical Support Missions



# Lessons Learned

## Lack of recent data availability may impact realism and practicality of assessment

- Lack of recent GHG inventory in the countries.
  - *Most of the countries analysis are based on their national communication report. INC/SNC was their basis of study with base year of study of 2000 and 2005.*
- Lack of country specific data for the technologies screened for prioritization.
  - *Technology factsheets are required to prepare for stakeholder consultation process. For many countries, obtaining country specific data was a challenge.*



# Lessons Learned

## **Consultation and review of outputs essential to improve the quality of outputs.**

- The consultation process with URC and AIT helped countries to reinforce the sector selection.
- Timely feedback/review provided to countries helped improve the process and strengthen the content of the reports.
- Regular and frequent follow up with the countries was found to be effective in speeding up the process of project activities.



# Lessons Learned

## **Regional/Global knowledge sharing is achieved**

- The experience sharing workshop showcases best practices.
- Conference participation by 3 continents helped sharing experience and challenge faced on global issues - climate change.

# Lessons Learned

## Communication

Working with many countries, stakeholders, climate bodies helps strengthening relation for future joint work.



# The way forward

- Although project outputs have some political endorsement, there is need of further commitment for implementation of the action plans.
- Sectoral engagement for the TAP implementation should be encouraged.
- Develop updated recent national GHG inventory.
- Technology pathways towards leapfrogging emission reduction need to be further analyzed.



# Thank You

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