

# TRAINING NEEDS ASSESSMENT FOR MAINSTREAMING ADAPTATION IN AGRICULTURE AND RELATED WATER SECTORS

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1

## Overview

- ▣ Background of the TNA project
- ▣ Overarching issues with capacity building in CCA in the AP region
- ▣ Underlying principles
- ▣ Overall Process
- ▣ Discussion

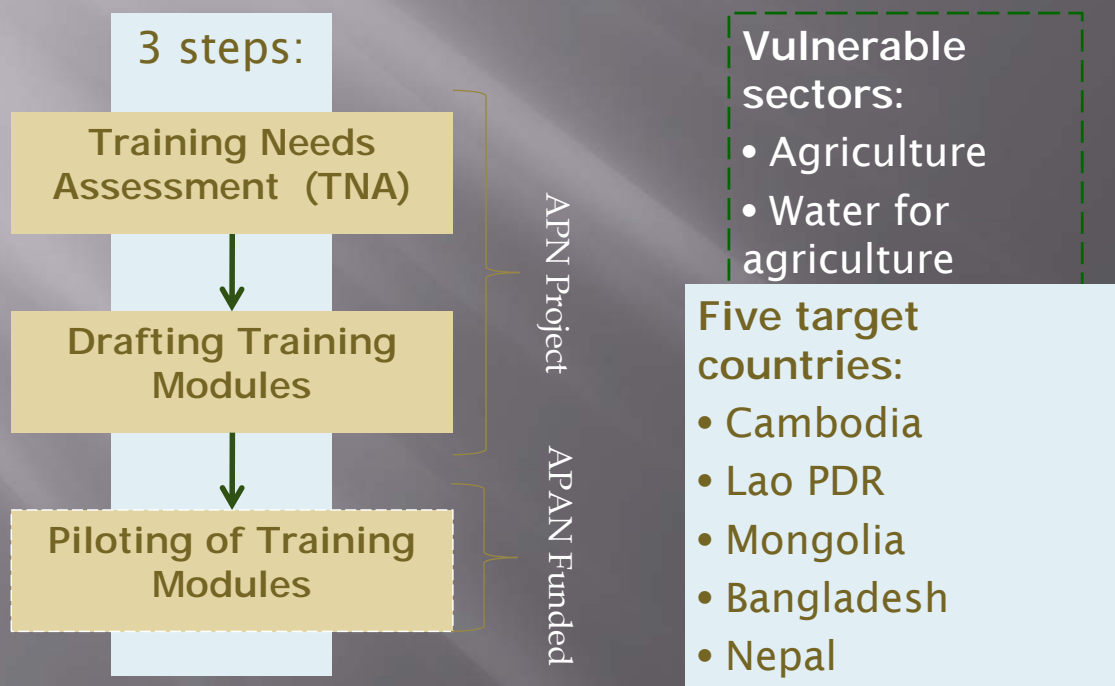
2

# Training Needs Assessment Project

- ▣ Duration: since Sept 2010
- ▣ Expected outputs
  - Country level TNA reports
    - ▣ 5, one each from Bangladesh, Cambodia, Lao PDR, Mongolia and Nepal
  - A synthesis report comprising of
    - ▣ Analysis on current issues with adaptation training in the AP region,
    - ▣ Process and draft modules
    - ▣ Policy suggestions
- ▣ Finalization
  - Piloting of the training modules and evaluation
  - Revision of modules based on pilot outcomes

3

## OVERVIEW OF APPROACH



4

# Proposed Activities

- TNA preliminary meeting (1<sup>st</sup> TNA Meeting)
- Preliminary TNA done by national partners (training institutes )in targeted countries
- Expected result: **TNA preliminary report**
- TNA review meeting (2<sup>nd</sup> TNA meeting): end of February 2011 – Bangkok
- Detailed TNA done by national partners in targeted countries with monitoring by APAN
- Expected result: **TNA comprehensive report**

5

# Proposed Activities Cont...

- Training Modules Drafting Workshop
- Training Modules Finalization Workshop  
Targeted participants: national partners, CCA experts, pedagogic experts

6

# Overarching Issues for Capacity Building in CCA

From our experience of working on climate change adaptation and capacity development and education in the Asia-Pacific region

7

## Training & Capacity Building Environment

- ▣ Several forms both by governments and non-governmental agencies
  - Linked to recruitment processes:
    - ▣ Induction training: Probationers' training or before entering the job
    - ▣ On-the-Job training (OJT): While on-the-job
  - Ad-hoc training: not linked to recruitment processes
    - ▣ Most of the training programs organized as and when certain capacity building projects are available

8

- ▣ Who is providing training?
  - Professors at universities (predominant countries),
  - Trainers at specialized training institutes (few countries and ministries),
  - Developmental workers at non-governmental organizations including networks and consortiums
- ▣ Who is being trained?
  - Administrators in government departments
  - Policy makers (Elected representatives)
  - Field workers, researchers, and developmental workers.

9

## Some Overarching Issues for Training on Adaptation

Institutional issues

- ▣ Few number of training institutions and programs
- ▣ Often fragmented/lacks coordination
- ▣ Movement of staff across different ministries and sectors
- ▣ No information on how many were trained, who needs to be trained, and on what aspects.
- ▣ No national level targets, timescales and strategies!

Pedagogic issues

- ▣ Little understanding on what knowledge and skill areas are needed for effective mainstreaming of adaptation at different levels: Few or no TNAs done to date
- ▣ Trainings are often limited to 'class room sessions' with more focus on 'information flow' (knowledge?) with little or no emphasis on imparting skills relevant for the job
- ▣ No reflection of knowledge and skills imparted *vis-a-vis* duties of various staff in their real world work. So, often the trainings makes little or no matter for the staff after they go back to their duties.

10



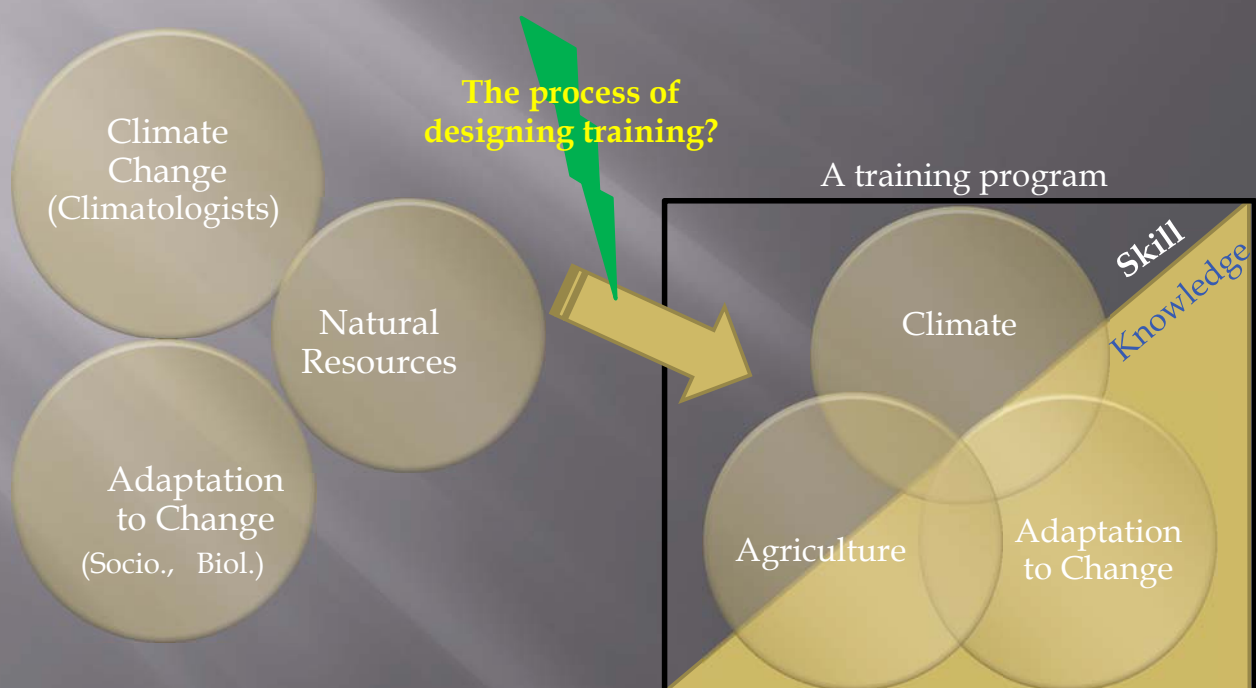
## Some Overarching Issues Cont...

- Most universities teach meteorology, climatology, and risk management in their basic and applied variants.
  - Agro-meteorology
  - Agro-climatology
  - Hydro-meteorology
  - Medical climatology
  - Urban climatology
  - Risk management in financial, business, IT and engineering sectors
  - Biology (e.g. species structural and behavioral adaptation)...
  - Sociology and political sciences: social and institutional adaptations to changes (non-climatic)
- Some of them include different aspects of change in climate and risk, both long-term and short term.

This situation may be changing slowly as more and more departments in universities are offering higher degrees/research in adaptation

11

## How to Integrate these Pieces for Effective Training on Adaptation for a Better on-the-job Performance?



12

## Further Challenges to Overcome

- ▣ Generalization vs specialization: Tasks are specific, subjects/sectors are numerous and no one-fit-all training program works.
- ▣ Who will administer training?
- ▣ How much to train? The syllabus burden!
- ▣ Limited resources: Limited time of the staff for training (max 1 week).
- ▣ In what knowledge and skill ratios?
- ▣ Mainstreaming a specific module with the existing training programs may address all the above issues: Do we have successful examples?

13

## PRINCIPLES AND PROCESSES ADOPTED FOR THE TNA PROJECT

14

# Principle I: A Training Program that Stimulates all Three Spheres of Learning



Cognitive domain  
(mental or knowledge)



Affective domain  
(attitude and belief)



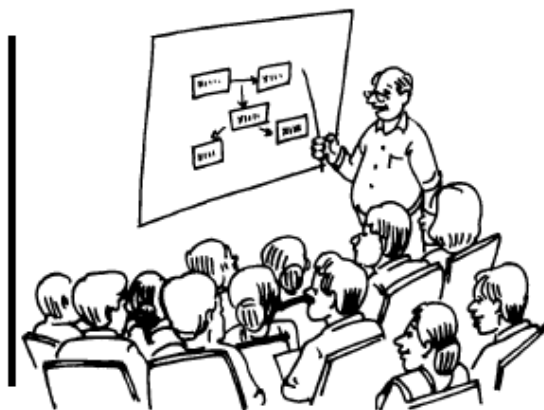
Psychomotor domain  
(physical skills)

15

# Principle II: A Training Program that Helps in Moving from Autonomous to Anticipatory Learning



Autonomous learning



Anticipatory learning

16



## Principle III: A Training Program that Matches with the Real Situation



Skills and tools at different places?

17

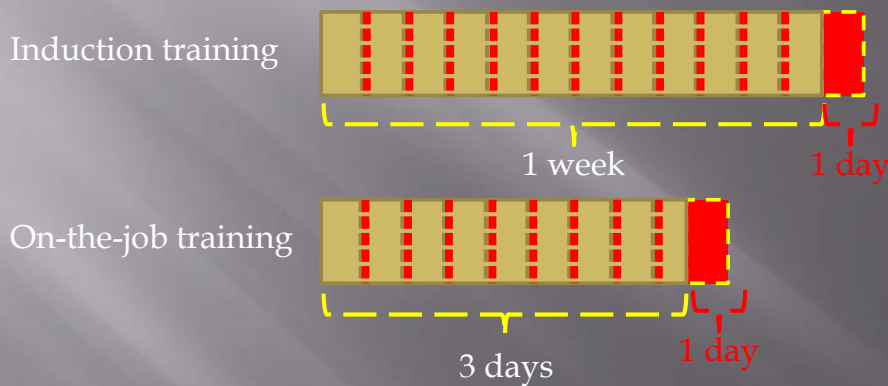
## Guideposts for Designing Training Programs on Adaptation

- ❑ **No one-fit-all:** Not one program but we need several programs targeted at specific sectors/subjects/staff/professionals
- ❑ **Adaptive:** review and revise at regular intervals with changing times
- ❑ **Flexible** enough to rekindle innovation at the local/institutional level
- ❑ **Practical:** Consider the existing resources and have plans for future resources
- ❑ **Incentives:** capacity building and other resources to help implement the program
- ❑ **Participatory:** Involve national HRD ministries & institutions etc.
- ❑ **Differentiated/targeted:** Each hierarchy of officers are trained on their specific expected roles
- ❑ **Inclusive:** Addresses institutional and on the job responsibilities & issues.

18

# Strategy for Mainstreaming

## At places with well established training programs



Current	Future (example)
(1) Agro-climatic conditions	(1) + climate change trends and projections
(2) Crop management practices	(2) + drought resilient crop management practices

19

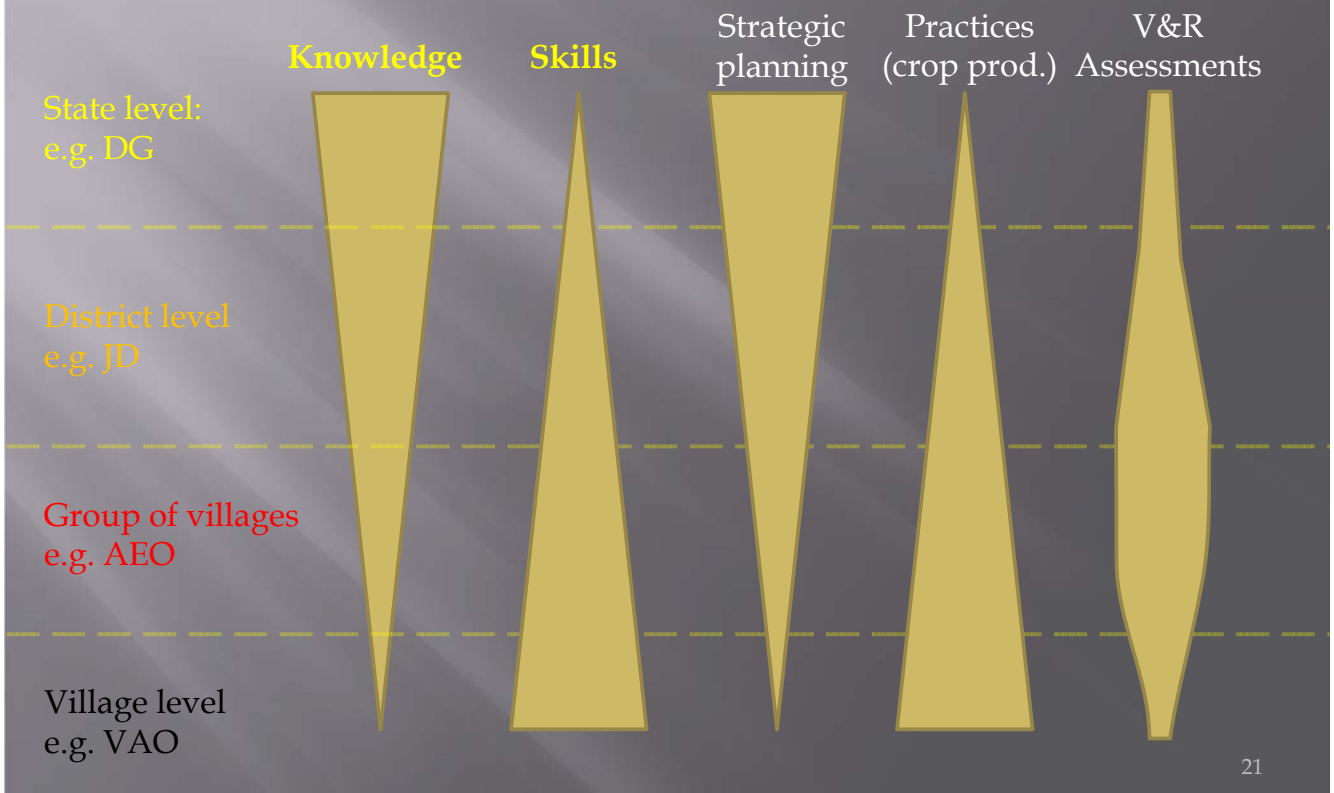
# Strategy for Mainstreaming

## At places with no training programs/ad-hoc systems

- Option I: Create a framework for proper regular training programs that includes adaptation concerns
- Option II: To prepare stand-alone modules with a plan to regularize them eventually when formal training systems are put in place
- Both strategies involve lobbying at policy level for allocating additional resources and preparing proposals for external funding for implementation

20

# Tailored to Needs



# The Process

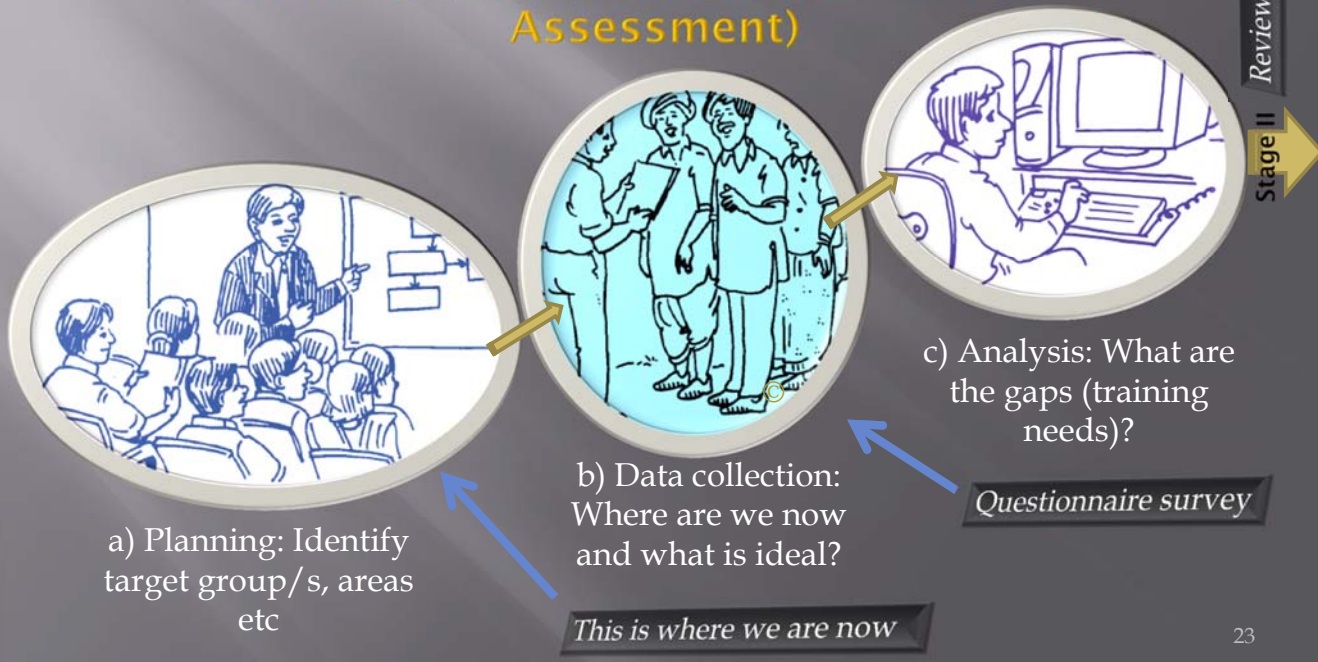
Needs assessment, Program drafting, piloting, and review and revise

# The Four-Stage Process

## Stage I: Training Needs Assessment (Knowledge, Skill, and Environment Needs Assessment)

Review Meeting: March 2011

Stage II



## Stage II: Design Modules

Domain expert II: Climate change adaptation expert

*Bangkok, July 2011*

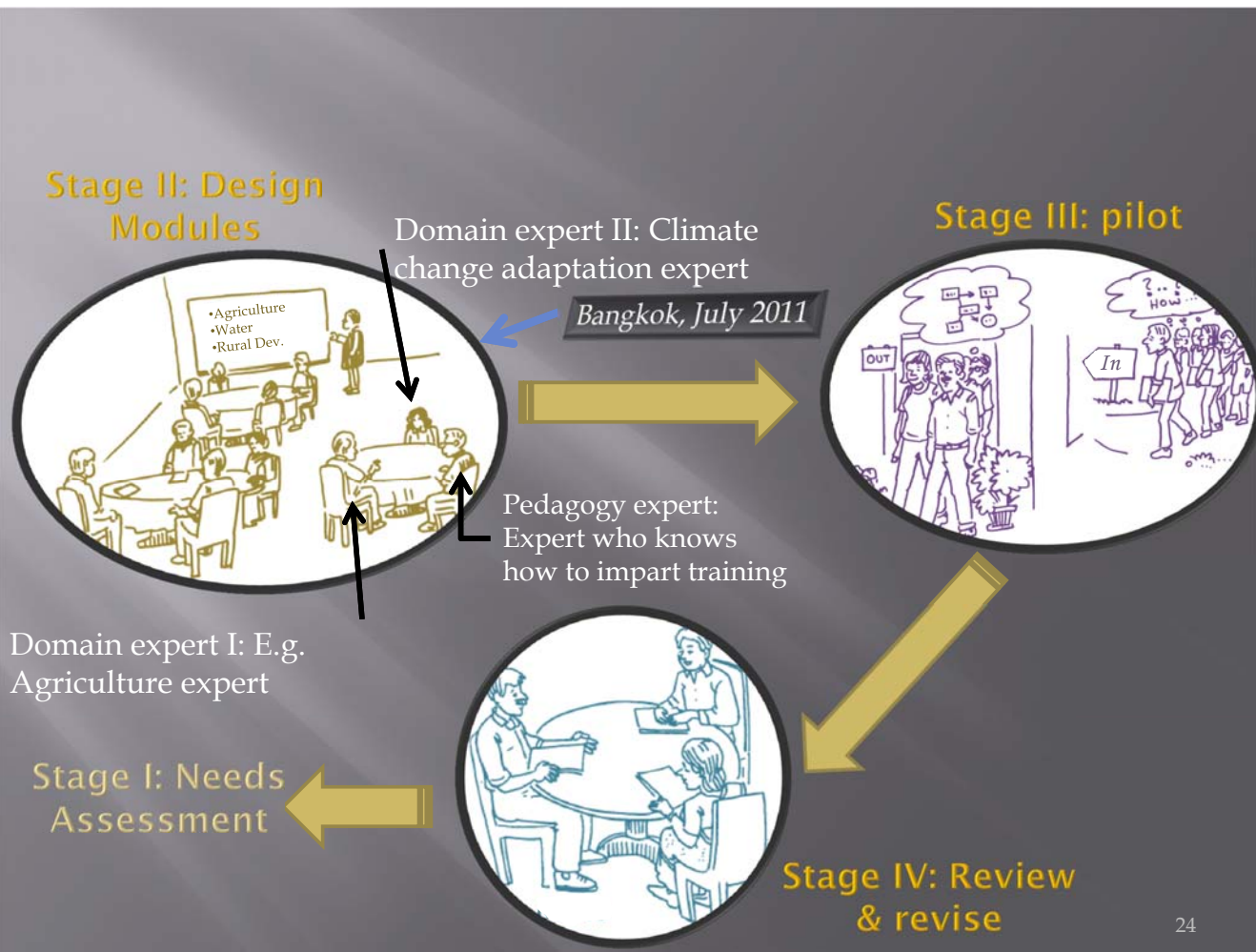
## Stage III: pilot

Pedagogy expert: Expert who knows how to impart training

Domain expert I: E.g. Agriculture expert

## Stage I: Needs Assessment

## Stage IV: Review & revise





# TNA Stage I

- ▣ Stage 1a) Understanding the current status
  - Skills and knowledge (Form I, II, & IV)
    - ▣ Trainers
    - ▣ Those who will need to be trained (agriculture officers and other departmental technical personnel)
  - Training Environment (Form III)
    - ▣ What physical facilities exist for imparting training

25

# TNA Stage I

- ▣ Stage 1b) What is ideal?
  - Needs to be identified with the help of climate change, adaptation and domain experts in each country (since it is specific to each specific country).
    - ▣ Desk review of adaptation literature by each country partner to identify what adaptation activities are necessary in agriculture sector. Focus on specific crops as/if necessary.
- ▣ Stage 1c) Compare the above with the survey outputs and identify gaps.
  - Tabulation would be much useful method of comparing

26

# Gap (Training needs)=Comparing existing with the ideal

Issue		Existing (evaluation from survey)	Ideal*	Gap (Training Needs)
Knowledge	<ul style="list-style-type: none"> <li>•What is climate change?</li> <li>•What are climate change impacts in the country?</li> <li>•What agricultural practices help?</li> <li>•What is Climate change vulnerability assessment?</li> </ul>	<ol style="list-style-type: none"> <li>1. Do not know</li> <li>2. Not exactly known</li> </ol>	<ul style="list-style-type: none"> <li>•Agriculture sector in Bangladesh will undergo losses</li> <li>•Crops such as rice and wheat are most vulnerable</li> <li>•Integrated crop management, System of rice intensification are important</li> </ul>	Knowledge on climate change impacts not known

Sources for identifying 'ideal': national adaptation plan of actions, scientific publications from local/national/regional research institutions, etc.

27

# Gap=Comparing Existing with Ideal

Issue		Existing (evaluation from survey)	Ideal	Gap
Skills	How to implement practice x?	<ul style="list-style-type: none"> <li>• Cannot do entirely</li> <li>• Can do partially</li> </ul>	Able to do	Skills for practicing/teaching/training certain aspects are missing/not fully familiar with.
Environment	<ul style="list-style-type: none"> <li>• Classroom facilities</li> <li>• Laboratory/field facilities</li> <li>• Funds</li> <li>• Personnel (number)</li> </ul>	Sufficient/not sufficient	Estimate in consultation with pedagogic experts/trainers	Difference between existing and what is needed

28

## TNA Stage II: TNA Modules Preparation

- ▣ Training module design workshop in July 2011, Bangkok.
  - Precipitate all the above processes at a single place and convert each gap into measurable and verifiable training objectives with the help of pedagogic experts.
  - **Output:** Draft modules [to be eventually perfected in a collaborative process over email and by peer review]

29

## Training Modules Developed

Country	Training module	Days (sessions)	
		Induction	In-service
Bangladesh	1. Sub-Assistant Agriculture Officers (DAE)	5 (10)	5 (20)
	2. District and Upazilla (Sub-District) level Ag. Off.	2 (10)	5 (20)
	3. Policy Makers	2 (10)	4 (15)
Cambodia	1. PDA district and commune level	7 (6)	20 (7)
	2. GDA-national level	4 (5)	14 (7)
	3. PDA Province level	7 (9)	20 (9)
Lao PDR	<b>1. Provincial agriculture officers</b>		
	a) Integrated water management	-	4 (10)
	b) Soil management	-	2 (3)
	c) Integrated pest management	-	1.5 (3)
	d) Paddy cultivation	-	3 (7)
	<b>2. District agriculture officers</b>		
a) Animal feed management	-	2 (3)	
b) Concepts of climate change adaptation	1 (4)	-	
Mongolia	1. Entry level agriculture officers	3 (15)	2 (9)
	2. Implementation level agriculture officers	2 (10)	2 (8)
	3. Senior agriculture extension officers	1 (8)	1 (7)
Nepal	1. Implementation officers	0.5 (2)	1 (5)
	2. Frontline extension staff	0.5 (2)	1 (4)
	3. Policy makers		0.5 (2)

30

# Lessons Learned

- ❑ There is a dearth of country and location specific knowledge pertaining to climate change impacts, projections and practices that will help improve the adaptive capacity.
- ❑ Mandates: Most personnel in government departments do not have mandate to work on CCA. No incentive to get trained on CCA.
- ❑ Country training practices vary widely and hence one-fit all training programs doesn't work.
- ❑ For most part, the knowledge and skills imparted remained close to best management practices that have been advocated before.
- ❑ There is a dearth of resources and institutional commitment to design and implement training on climate change adaptation.
- ❑ Lack of country capacity building frameworks and human resource development plans make the modules unsustainable, no guarantee that they will be revised.

31

# THANK YOU

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32