



INITIATIVE ON

Asian Mega-Deltas



GUIDELINES

PARTICIPATORY EVALUATION OF CLIMATE-RISK MAPS AND ADAPTATION PLANS AT COMMUNITY LEVEL

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BACKGROUND INFORMATION

The Asian Mega-Deltas for Climate and Livelihood Resilience (AMD) is a CGIAR initiative, which aims to create resilient, inclusive and productive deltas, which maintain socio-ecological integrity, adapt to climatic and other stressors, and support human prosperity and wellbeing, by removing systemic barriers to the scaling of transformative technologies and practices at community, national and regional levels. The AMD Initiative also addresses challenges to nutrition security, financial investment, gender equity and social inclusion, and to the natural resources on which the resilience of the entire system depends by building strong policy-science partnerships working with diverse actors and aligning them towards common goals.

One of the activities under AMD Initiative is to develop climate-risk maps and adaptation plans for the targets regions of Asian Mega-Deltas following participatory mapping approach (CS-MAP). In CS-MAP, local knowledge is very important in identifying affected areas, the level of climate risks and adaptation measures taking into account local contexts (natural resources, infrastructure and production activities). Starting from mid-2022, CS-MAP has been carrying out at 13 provinces of Vietnam, 4 provinces of Cambodia in the Mekong River Delta, and 10 districts belonging to 3 divisions of Bangladesh. As the outputs of CS-MAP, climate-risks and associated adaptation plans have been identified for every agriculture land area by local stakeholders from different administrative levels.

From farmers' perspective, impacts of climate risk and feasibility of adaptation measures can be seen through a very site-specific angle that influenced by farm/household capacity (land quality, labor, capital, education, etc.), gender equity and other social norms. Therefore, besides the macro and meso planning, resilient and sustainable agriculture development should also be considered at the micro or grassroots level. Farmer-level verification of proposed climate-adaptation measures will provide important guidance for AMD to create its significant impacts at deltas level.

Within the framework of AMD, farmer-level verification of CS-MAP aims at:

- Understanding farmer/community perspective on climate risks and workable options to cope with their risk-prone conditions
- Identifying the grassroots constraints and willingness of male and female farmers in adoption of adaptation measures;
- Empowering farmer/community by involving both male and female farmers in climate-planning and decision making processes;
- Informing planning and strategy development of local and central government.

OBJECTIVES OF THIS GUIDELINES

This document is developed for facilitators and researchers/advisors who support the participatory evaluation of CS-MAP results at community level. It provides a basic framework to conduct a Focus Group Discussion (FGD) with participation of farmers, extension workers and village leaders. The Guidelines only describe the 3-step process and simple tools that are commonly applied in the Participatory Rural Appraisal (PRA) and Rural Rapid Appraisal (RRA). The process can be adjusted depending on local bio-physical and social conditions.

It is assumed that climate-risk maps and proposed adaptation plans have been developed at higher administrative level and are available for community-level evaluation. Participatory mapping is outside the scope of these Guidelines.

STEPS OF THE COMMUNITY-LEVEL EVALUATION

The focus of community-level evaluation is to capture farmers' feedback of CS-MAP outputs, including perception of risk level and feasibility of proposed adaptation measures.

STEP 1: PREPARATION

1.1. Facilitators

For each validation meeting, at least 1 or 2 facilitators are required. Facilitators are members of the CS-MAP team, who did facilitation in CS-MAP consultation workshop at higher level (i.e. district level). For each step in the evaluation process, the facilitators are responsible to guide discussion, encourage all the participants to contribute inputs, record and summary outputs. Facilitators should prepare themselves the checklist of the items needed for the evaluation meeting.

1.2. Revision of climate-risk and adaptation measures for the targeted community

The target community can be delineated by the administrative boundary (e.g. commune/union or village) or natural boundaries based on topography (landscape as valley, hill, and mountain) or hydrological conditions (watershed, irrigation system...).

1.3. Pre-prepared information and data

The CS-MAP community-level evaluation relies heavily on the maps and options generated from CS-MAP implementation at a higher administrative level (i.e.

province/district). Example of the secondary data and information necessary for the evaluation is shown in the Table 1 below:

Table 1: Suggestion for necessary information and data

Type of data	Details
Information extracted from CS-Map outputs	• Climate-risk prone • List of adaptive options
Climate (<i>annual, seasonal and monthly distribution, variability and extremes</i>)	• Rainfall • Temperature • Major climate-risks
Hydrology	• Open irrigation water (<i>water level, relevant water quality as salinity, acidity, discharge</i>) • Groundwater <i>level</i> and quality
Land use	• Food systems and cropping calendar • Main current food products • Promising food products
Economy	• Living standard • Sources of income • Agricultural & livestock production • Farming systems • Farm size
Sociology/social services	• Number of households • Number of farmers • Presence & effectiveness of local institutions
Existing adaptation plans affecting farmers' decision	• Village • Commune • District • Provincial • Regional • National

1.4. Stakeholders

Key stakeholders of community-level evaluation are farmers, extension workers and presentative of local authorities. They should ideally be knowledgeable about the agriculture production and environment of the community. Some guidelines for selection of participants are presented in Table 2.

Table 2: Selection of stakeholder's representatives

Representation	Selection guidelines
Geographic	Ensure the participants are from the targeted community.
Gender	Aim for an equal number of men and women, ideally 10 persons for each group
Ethnic	Ensure that ethnic minorities of the community are considered in selection
Occupation	Ensure that participants include farmers working on cultivation, fishery and livestock
Social standing	Ensure that there is at least some representatives are local officials and extension workers.

1.5. Materials and facilities

A list of useful items for the participatory evaluation meeting is shown in Table 3.

Table 3: Items for the evaluation meetings

<i>For facilitators</i>	<i>For participants</i>
1. Flip chart and A0 papers 2. Marker pens (3 different colors) 3. Tape (wide) 4. Sticky notes 5. Notebook and pens 6. Camera 7. Listing participant names 8. 30 hard copies of questionnaire*	1. Presentation of general information about AMD, findings of CS-Map workshop 2. Food and drink 3. Pencil with eraser

1.6. Timing

The total time spent for the community-level evaluation meeting should not excess 3 hours.

STEP 2: PARTICIPATORY EVALUATION OF CS-MAP AT COMMUNITY

The evaluation process mainly follows participatory approach and consists of 3 sessions.

Session 1. Overview of the CS-MAP outputs (30 minutes)

Facilitators provide all participants a brief of following topics:

- CS-MAP objectives, implementation and findings that are relevant to the target community
- Available/practicable adaptation options from similar environments
- The purpose and expected results of the validation meeting

Depending on readiness of infrastructure (i.e. electricity and meeting venue) and facilities (i.e. projector and screen), facilitators can use either the pre-prepared slides (see 1.5) or hard copies of maps and pictures to communicate to participants.

Session 2. Individual evaluation (45 minutes)

The purpose of this session is to capture individual perception of climate risk and their evaluation of proposed adaptation measures, which are introduced in Session 1. Output of this session will be the qualitative input for next discussion session, and the quantitative data for further analysis.

- First, facilitators provide each participant a hard copy of the questionnaire (Annex 2) and guide them fill out the form individually (30 minutes).
- Facilitators then collect all filled forms and do quick statistic and develop a list of most common issues (15 minutes).

Session 3. Group evaluation (90 minutes)

The purpose of this session is to get common agreement of issues listed at the result of the Session 2. In this session, facilitators conduct open discussion on each of the issues and record participant feedbacks following FGD method. The discussion should focus on:

- Perception of climate-risks (30 minutes)
- Agreement of applicable adaptive measures (30 minutes)
- Necessary investments (e.g. irrigation, crop variety, fertilizers...) and technical supports (30 minutes)

Session 4. Wrap-up (15 minutes)

PREPARATION OF THE EVALUATION REPORT

The proposed outline of the evaluation report is as follow:

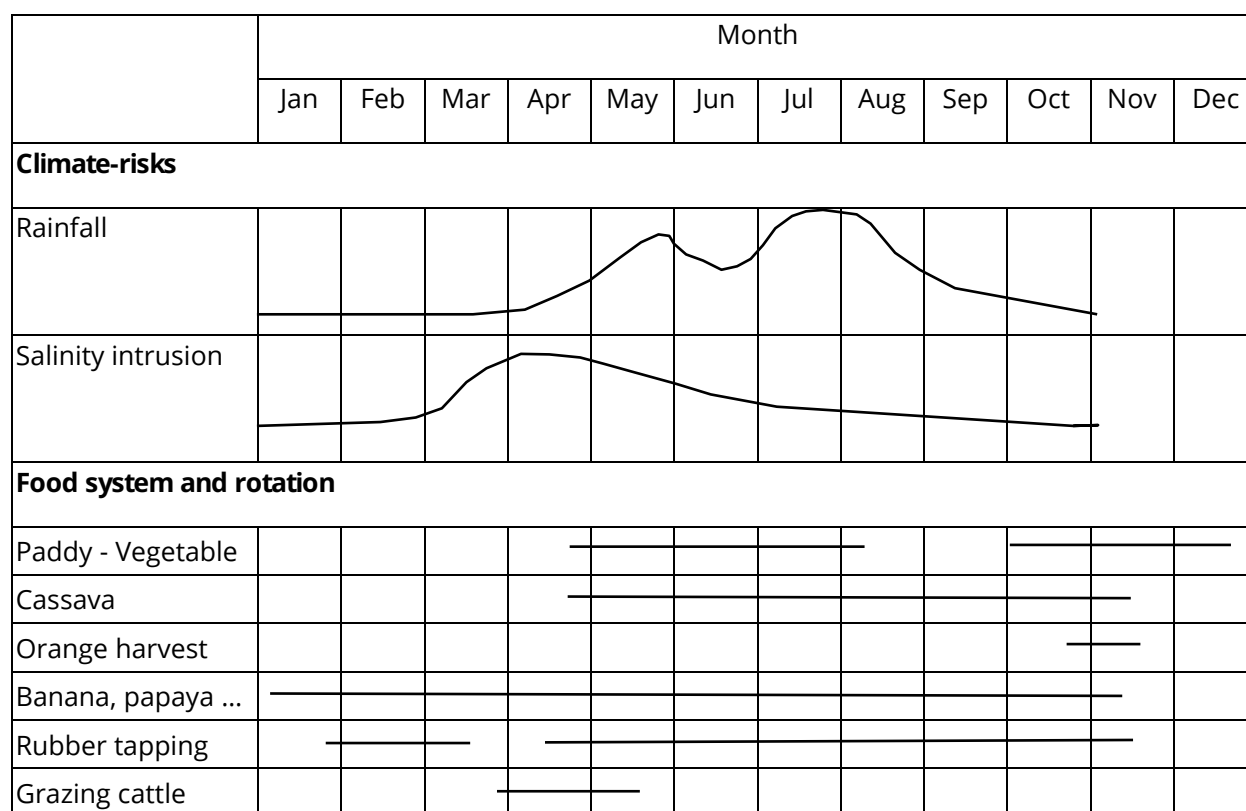
1. Introduction
 - a. Food systems and cropping calendar (see Annex 2 for reference)*
 - b. Site-specific climate-risks*
2. Main characteristics of the community
3. Individual evaluation
 - c. Methods, tools*
 - d. Initial findings (see Annex 1 for reference)*
4. Group evaluation
 - a. Methods, tools*
 - b. Initial findings*
5. Recommendations
 - a. Brief description of related plans, programs and projects*
 - b. Recommendations for government policies*
 - c. Recommendations for the follow-up activities.*

REFERENCES

- Hoanh CT, Yen BT, Trung NH. 2018. Participatory Land Use Planning for Climate-Smart Villages: Guidelines and References. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available at <https://hdl.handle.net/10568/93442>
- Simelton E, Dam VB, Finlayson R, Lasco R. 2014 (eds). The Talking Toolkit. How smallholding farmers and local governments can together adapt to climate change. World Agroforestry Centre (ICRAF), Ha Noi, Viet Nam.

ANNEX

Annex 1: Example of existing food systems and cropping calendar



Annex 2: Form for individual evaluation of climate risks and adaptation measures

Household information

Name of the participant:

Gender: ☐ Male ☐ Female

Address: Village/Hamlet Union.....

Upazila.....

DistrictDivision.....

Number of the household agricultural labors:persons

Total agriculture land:ha

Household food systems and cropping calendar

Food system	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<i>Paddy-Vegetable</i>												
1:.....												
2:.....												
3:.....												

Perception of climate-risks

Climate-risk	Risk level	Climate-risk trend**	Occurrence of climate-risk											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<i>Salinity intrusion</i>	H	↑												
1:.....														
2:.....														
3:.....														

* Experience of the climate-risk in the last 5 years: Use following code: High (**H**), Moderate (**M**) and Low (**L**) in consideration of potential damage to food products

** Experience of climate impact in the last 5 years: Use following symbols for increased (↑), no change (→), decreased (↓)

Evaluation of the proposed adaptation measures

Measure	Level of interest	Willing to adopt	Potential change in gender role	Support needed
<i>Saline tolerance rice</i>	High /Medium/Low	High/ Medium /Low	Male/ Female /Both	<i>Technical guidance</i>
1:.....				
2:.....				
3:.....				

Household adoption intention

Agricultural system		Difficulty/Challenge	Supports needed
From	To		
<i>Rice - Rice</i>	<i>Rice – Rice (tolerance)</i>	<i>No experience</i>	<i>Technical advice, certified seeds</i>

Other current difficulties in food production of the household:

- ☐ Cultivation area
- ☐ Labor.....
- ☐ Production techniques.....
- ☐ Irrigation water
- ☐ Seeds
- ☐ Pests, diseases
- ☐ Capital.....
- ☐ Market
- ☐ Others:.....
-



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