



PARTICIPATORY CLIMATE INFORMATION SERVICES SYSTEMS DEVELOPMENT METHODOLOGY GUIDE



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Cover Photo:

Participatory climate information services systems mapping workshop with a women's group in the village of Zongo Tambari, Mirriah Department, Zinder Region, Niger.

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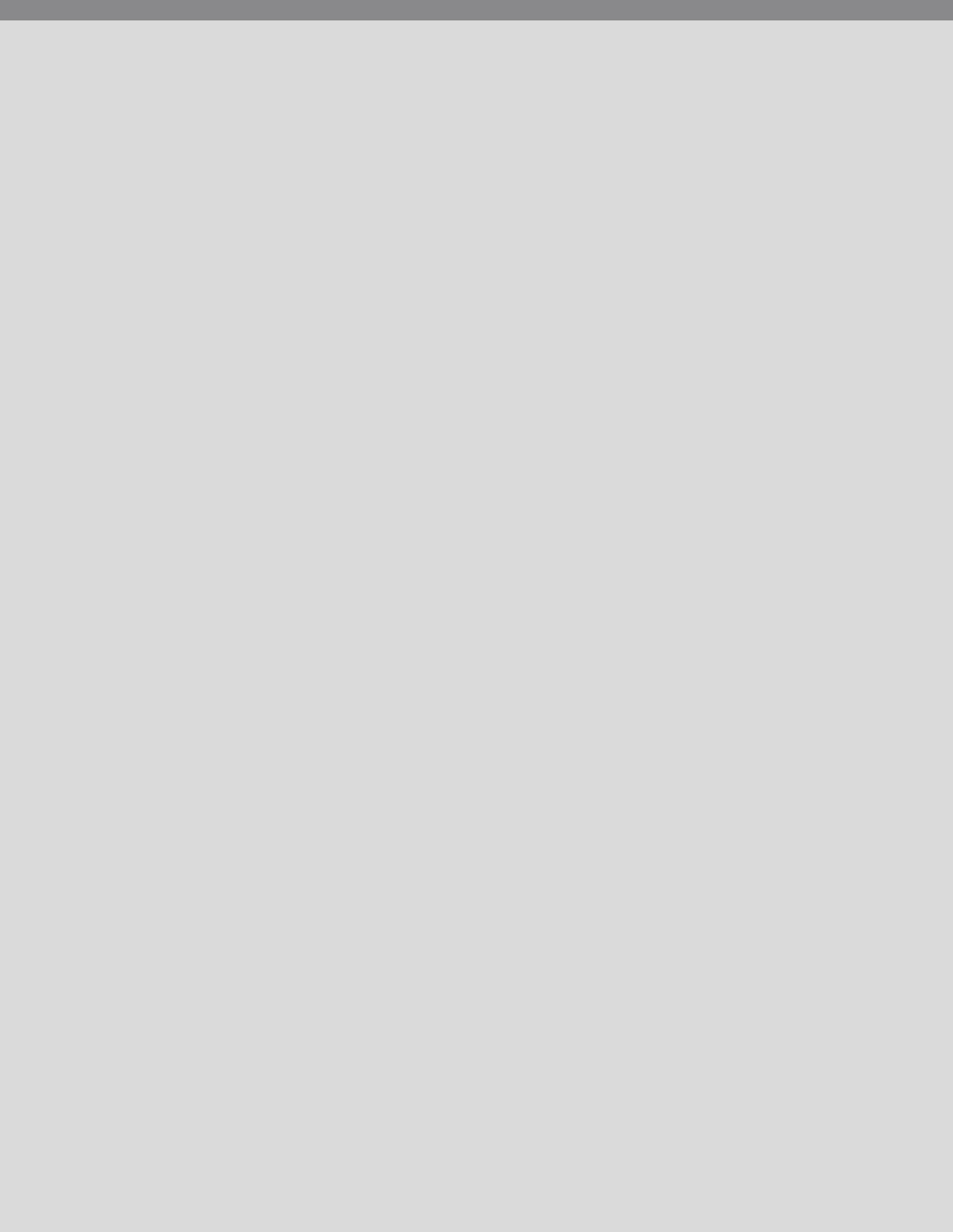
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INTRODUCTION

What is This Guide?

This guide provides step-by-step guidance for implementing the five stages that make up the **Participatory Climate Information Services Systems Development** approach. It is addressed to practitioners who are involved in designing, planning and implementing activities to improve the quality and inclusive delivery of climate information services (CIS). The guidance is tailored to practitioners working with smallholder farmers who use weather and climate forecasts to inform their agricultural and natural resource management decisions. However, with some adjustments, the guidance could also apply to the development of CIS targeting other end users.

This methodology supports practitioners to assess the factors that affect the functioning and efficiency of CIS programs, such as social and cultural norms, institutional arrangements, and information flows. It also supports practitioners to facilitate dialogue between stakeholders within the CIS communication chain, helping them to take action together to improve the system. It supports practitioners and CIS stakeholders in answering the following questions:

- What are the factors that influence end users' access to and use of CIS?
- Where are the breakdowns and constraints in the delivery and use of CIS?
- What are the most effective approaches and channels for improving end users' access to and use of climate information?
- What opportunities exist for CIS stakeholders along the communication chain to improve the functioning of the system to better meet users' needs?

Who Should Use This Guide?

This guide is targeted at facilitators, such as NGO and extension field staff, involved in designing, planning and implementing CIS activities. The guidance provided is not overly prescriptive; it allows space for iteration, creative approaches and context-specific adaptations. It is assumed that the users of this approach will have skills and prior experience in facilitating participatory exercises, particularly with smallholder farmers.

Purpose of Using This Approach

Typically, the purpose of a CIS system is to deliver climate information to farmers in a way that improves their productivity, reduces risk or enhances resilience to climate shocks and stresses, within a broader systems approach. The purpose of using this participatory systems mapping approach is to improve the functioning of a given CIS system and create space for more robust stakeholder feedback to better align the CIS system with its intended purpose. The idea behind the approach is that **if CIS actors map the system and analyze together how it works, then they will be able to identify possible interventions they can act on and changes they can make, individually or collectively, to make the system function more effectively.**

For instance, changes to the CIS system could improve farmers' resilience by:

1. increasing access to timely, appropriate information for decision making that reduces livelihood assets' exposure to shocks and stresses;
2. increasing opportunities for improved absorptive and adaptive capacities; and
3. promoting transformative pathways through institutional, governance and policy-level changes.

This approach has been useful for **planning and designing a CIS program** in areas where one currently does not exist, or for **assessing an existing CIS program** to understand what is working well and what might be improved. The guidelines provide practical advice, tools and templates that practitioners can use as part of their facilitation role in bringing CIS actors together for systems mapping and discussions.

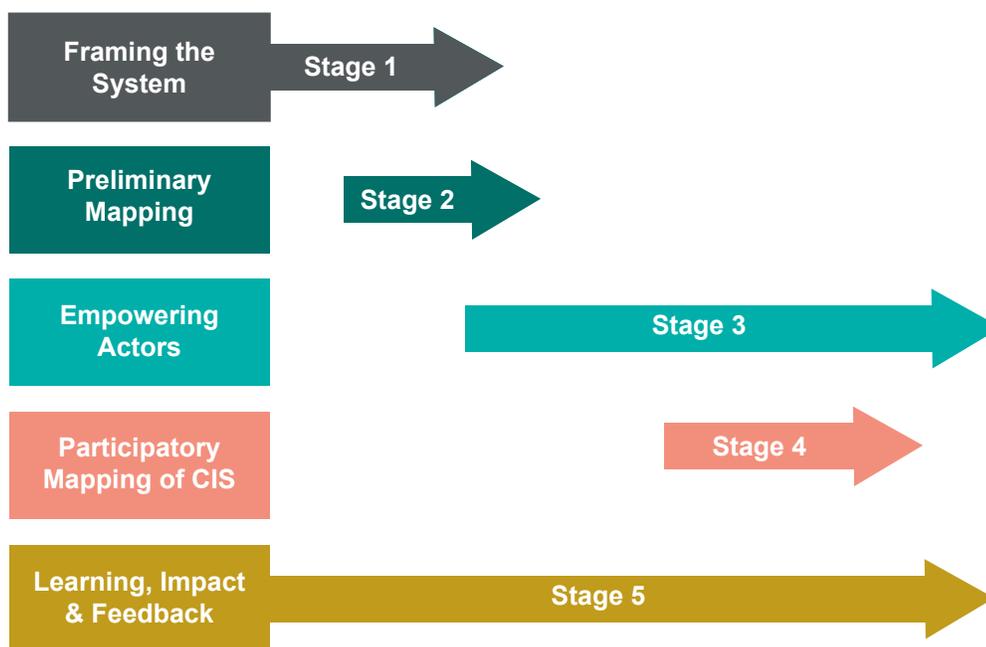
In pilot studies of the methodology conducted in Niger and Senegal, participants identified communication opportunities and intervention points to improve men and women’s access to and use of CIS, forged new stakeholder partnerships to facilitate CIS delivery, and identified locally-driven solutions. These outcomes were useful to inform both on-going programs delivering CIS to farmers, as well as the work of actors within the system more broadly.

The basis for this new approach is grounded in the success of other participatory approaches working alongside smallholder farmers, and can be used to complement other participatory methods. For example, the [Participatory Integrated Climate Services for Agriculture \(PICSA\)](#) approach aims to use participatory tools and processes to enable farmers to use climate information in planning and decision making.¹ The new approach outlined in this guide, the Participatory Climate Information Services Systems Development approach, is unique in that it aims to take a holistic view of improving the overall effectiveness of the climate services system by bringing together key stakeholders from across the value chain to facilitate dialogue and build consensus for action.

Brief Description of Stages

While this guidance document divides the approach into five distinct stages, facilitators are not expected to implement them in a linear, consecutive fashion. Figure 1 indicates a possible sequence for the different stages. Experience in Niger and Senegal showed that some stages may overlap or inform each other, requiring the facilitator to skip forward or backward before deciding to move on to the next Stage. The time required to complete all the Stages will vary depending on context, from approximately six months to several years. However, the involvement of the facilitation team will taper off as responsibility is taken up by the permanent actors in the system.

Figure 1: The Five Stages of Participatory Climate Information Services Systems Development



¹ Donward, P., Clarkson, G., Stern, R. (2015). *Participatory Integrated Climate Services for Agriculture (PICSA): Field Manual*. Walker Institute, University of Reading. Retrieved from: hdl.handle.net/10568/68687.

The Participatory Climate Information Services Systems Development Methodology

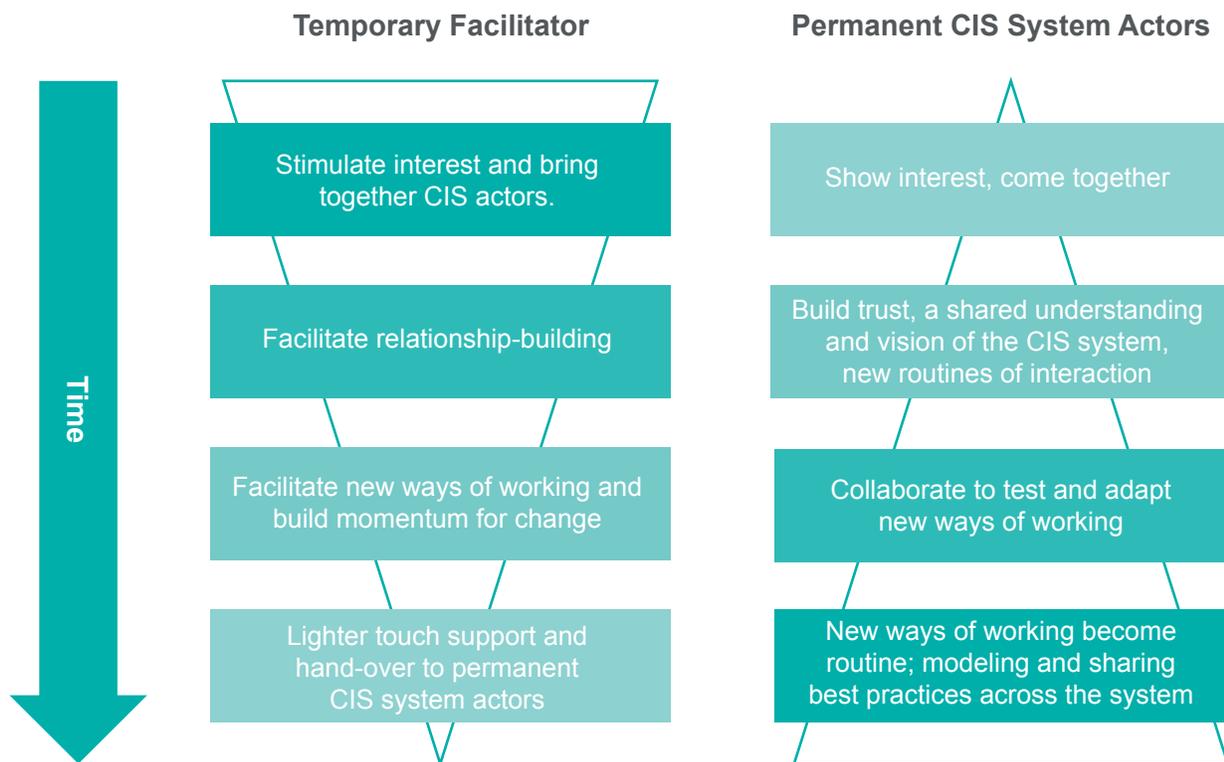
<p>Stage 1</p> <p>Framing the CIS System</p>	<p>What are the Climate Information Services that need to be designed or improved to enhance the decision-making of smallholder farmers?</p> <p>The first stage involves making decisions on the parameters of the CIS system that will be targeted. It includes determining which type(s) of CIS to focus on, at what geographical scale, and identifying key system actors, including end users.</p> <p>This stage includes collecting background information to inform the planned CIS design or system improvement activities; beginning a stakeholder analysis that is informed by initial engagement with CIS actors in the system; and identifying champions. This initial stakeholder engagement will serve as a foundation for further facilitation activities.</p>
<p>Stage 2</p> <p>Preliminary Systems Mapping and Analysis</p>	<p>Facilitators start to understand the system and identify climate information pathways and the roles of key actors</p> <p>The second stage focuses on creating a preliminary mapping of the CIS system, based on the information collected in Stage 1, that will lead to a more in-depth analysis of the CIS system, including identifying relationships between the key stakeholders and their communication pathways. This helps the facilitation team identify who to engage with for Stages 3 and 4 and can contribute to refining and finalizing the sustainability plan and work plan.</p>
<p>Stage 3</p> <p>Stakeholders' Empowerment for Engagement</p>	<p>Stakeholders at every level of the CIS system have the capacity and skills to contribute to the design and delivery of better systems that effectively communicate climate information</p> <p>The third stage leverages and enhances the capacity and skills of all stakeholders, particularly those who are marginalized within the system, to contribute to the design and delivery of better CIS systems by building marginalized actors' ability to express their perspectives and experiences related to CIS.</p>
<p>Stage 4</p> <p>Participatory Systems Mapping and Collective Solutions</p>	<p>The stakeholders understand the CIS system together and agree how it can be changed for the better</p> <p>The fourth stage involves a series of multi-stakeholder CIS system mapping workshops to create changes in perceptions and behaviors by building relationships and increasing trust between CIS actors. These participatory mapping workshops are a means to engage stakeholders to co-design solutions for improved CIS delivery and implementation.</p>
<p>Stage 5</p> <p>Learning, Feedback and Impact</p>	<p>From consensus to delivering change and supporting the process long-term</p> <p>The fifth stage is about learning throughout the whole change process, identifying the approaches that support stakeholders to bring about change and adapting where approaches are not successful. It includes tracking changes in actors' relationships and in the CIS systems' functioning, and planning for advocacy and influence. In the chapters for each of the four previous stages, the document provides guidance on integrating learning, feedback and impact into that stage's activities. The guidance in the Stage 5 chapter focuses on how to take the learning and impact forward as the mapping workshops wrap up and stakeholders begin to take action.</p>

Roles and Responsibilities

There are two key groups of actors involved in promoting, delivering and sustaining change across a system: temporary facilitators and permanent system actors. The support of the **facilitators**, who are typically grant-based actors, is inevitably temporary. It is therefore important to design the interventions accordingly, planning ahead for the withdrawal of their support.

The **permanent system actors** include all those actors who are part of the CIS system and who will remain a part of the system beyond the timeframe of the program using this approach. This includes the CIS end users – the farmers themselves – as well as actors from the national meteorological services, other government services, radio stations, civil society actors, and many others depending on the context.

At the beginning of the process, the temporary facilitator takes a lead in bringing CIS actors together. At every opportunity, the facilitator builds trust between the actors, working towards greater collaboration. As trust and collaboration increase, the process of change becomes increasingly led by the CIS system actors themselves. The facilitator is therefore able to reduce his or her support. If required, the facilitator may then focus on supporting an ongoing process of monitoring, learning and adaptation. See the diagram below.



In the guidelines, the more general term '**facilitation team**' refers to the person or persons acting as temporary facilitator. We recommend this team include people with a mix of skills and experience including:

- Ability to convene and facilitate meetings in local languages with farmers and other key stakeholders at local levels
- Experience in the use of participatory research methodology and tools with groups of male and female farmers
- Ability to engage, convene and facilitate meetings with stakeholders at national level, such as agricultural research and advisory services, national meteorological services, development agencies and donors

- Ability to ensure all voices are heard and to navigate nuanced power dynamics which may inhibit certain groups or individuals from participating
- Experience in qualitative research (individual interviews, focus groups)
- Knowledge of rain-fed agriculture, climate change adaptation, and/or agricultural risk management

See Additional Guidance for Stage 4, *Roles of the Facilitation Team*, for more information.

Structure of This Guidance Document

This document is divided into chapters for each of the 5 Stages. Each chapter comprises 4 sections where relevant:

- A 1-page summary of key information about the Stage
- Aim and Key Steps
- Learning, Feedback and Impact
- Additional Guidance and Tools

Templates, examples and basic training materials for facilitators are included in the Annex or through hyperlinks to online resources.

Notes About the Terminology

The authors of this methodology guide have made choices about certain terminology throughout this document, but the reader is encouraged to consider translating terms to ones that make sense for you. For example, we chose to use the term ‘program’, rather than project or intervention to describe interventions, regardless of the size. Additionally, throughout this guide, the Participatory CIS Systems Development process is sometimes called an approach, and at other times a methodology. We feel that the specific stages in the process represent a methodology, however, we also believe the Participatory CIS Systems Development process embodies aspects of an approach due to its theoretical basis.

Additional Resources

This guidance document was developed and piloted with USAID funding under the Mercy Corps-led Climate Information Services Research Initiative (CISRI), one half of the Learning Agenda on Climate Services for sub-Saharan Africa. Additional information and program resources are available on the [Learning Agenda for Climate Services program website](#).²

This methodology has been informed by Practical Action’s approach to Participatory Market Systems Development (PMSD). See the [PMSD Roadmap](#) for more information, tools, and training materials.³ PMSD is a Participatory Learning and Action (PLA) approach. More information on the history and principles of Participatory Learning and Action (PLA) can be found in the [online PLA archive](#)⁴ and in [Participatory Learning and Action: A Trainer’s Guide](#).⁵

² Climatelinks. (2019). *Learning Agenda for Climate Services in Sub-Saharan Africa*. Retrieved from: www.climatelinks.org/projects/learningagendaonclimateservices.

³ Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org.

⁴ International Institute for Environment and Development. (2013). *Participatory Learning and Action*. Retrieved from: www.iied.org/participatory-learning-action.

⁵ Pretty, J. N., Guijt, I., Thompson, J., Scoones, I. (1995). *Participatory Learning and Action: A trainer’s guide*. International Institute for Environment and Development. Retrieved from: pubs.iied.org/6021IIED.

STAGE 1

FRAMING THE CLIMATE INFORMATION SERVICES SYSTEM

What are the Climate Information Services that need to be designed or improved to enhance the decision-making of smallholder farmers?

I. Summary of Key Information

Objective	To gather the knowledge and resources necessary to determine the CIS system's geographic boundaries and targeted end users, and to begin identifying the key actors in the system.
Purpose	To frame the CIS system that is to be supported or enhanced through this participatory process, and to refine the research purpose.
Time	Stage 1 may take a few days to several weeks, depending on the CIS system's scope and complexity.
Tools	Annex 1 : Literature Review Template Annex 2 : Key Informant Interview Notes Template Annex 3 : Stakeholder Analysis Template Annex 4 : CIS Selection Criteria Tools Annex 5 : Influence-Relevance Matrix Template Annex 6 : Key Actor Profiles Template
Process	<ol style="list-style-type: none">1. Collect and review background information on the CIS system and farming types2. Conduct stakeholder analysis3. Begin to identify "champions"4. Hold an internal workshop to review the background information; define the target CIS system, geographic boundary and users; draft a sustainability plan; and identify next steps (a full workshop may not be necessary if resources do not allow or if working with a simple CIS system)5. Document all key decisions, assumptions and learning
Outputs	<ul style="list-style-type: none">• Literature review summary/list of references• Key informant interview notes• Rationale for the choice and framing of the CIS system• Initial list of stakeholders and analysis of their roles in the system• List of potential "champions" identified to take the process forwards• Draft Sustainability Plan

Aim

By the end of Stage 1, you will have determined the CIS system boundary and target users that you want to investigate further and will have developed a clearer understanding of the key stakeholders in that system.

II. Key Steps

Step 1. Data Collection and Review

Stage 1 starts with collecting and reviewing background information on the CIS system and the different farming typologies practiced in the targeted regions. In addition to using the *Literature Review Template* ([Annex 1](#)) to track government policies, reports and data produced by the public or private sector related to CIS, this stage should also include key informant interviews (KIIs) with CIS stakeholders such as CIS providers, interpreters, policymakers and farmers. For an example form for collecting notes during these interviews, see *Template for Key Informant Interview Notes* ([Annex 2](#)). The [engaging key actors](#) section on page 12 provides further guidance. Through this initial exploratory phase, you will gather information to help you decide on the geographical limits of the CIS system that the mapping will investigate, the type(s) of CIS of interest, and the typology of farmers that could benefit from improvements to the chosen CIS system.

If the aim is to improve a specific, existing CIS, these decisions may be relatively straightforward, and you may only need to decide at which geographical level to map the system. However, if you are considering more broadly where best to focus resources, the decisions made on end-user typologies and types of CIS may require more research, and should be evidence-based, informed by the literature review and the KIIs. Iterative inquiry will help you to balance rigor with practicality and make a final decision that is rooted in informed discussion among the facilitation team and stakeholders.

Outputs:

- Literature review summary findings and list of references ([Annex 1](#))
- Key informant interview notes ([Annex 2](#))

Step 2. Stakeholder Analysis

Throughout Stage 1, the facilitation team will be exposed to many CIS actors through the KIIs and literature review. The *Stakeholder Analysis Template* ([Annex 3](#)) is a useful tool to keep track of these stakeholders and their organizations, their role in the CIS system and their potential motivations to engage in the participatory CIS systems mapping process. The stakeholder analysis template also includes tabs for use during Stage 4 mapping exercises to capture the supporting services, enabling environment, challenges and opportunities. These are described further in Stage 2 and 4.

Outputs:

- *Stakeholder Analysis Template* ([Annex 3](#)) filled out for all stakeholders engaged during Stage 1 (can be updated as the process continues)

Step 3. Identify “Champions”

As the facilitation team engages with stakeholders, the team will begin to identify potential “champions”: those actors who are interested in this process and can commit to engaging with the facilitation team and helping to carry the outcomes forward after the systems mapping workshops conclude. Champions can come from any level of the CIS communication chain, and can be representatives of any CIS stakeholder group. In selecting champions, the team should consider:

- **Motivation:** Why is this actor interested in changing the CIS system? What drives their ongoing engagement? What are the threats or barriers to their engagement? How could these be mitigated?
- **Capacity:** To what extent does this actor have the skills, time and resources to engage in promoting change in the CIS system? What external support may be required?
- **Power:** How much credibility or weight does this actor have with other actors in the system, considering the mandate of the institution and/or program?
- **Longevity:** Will the actor be present in the system long-term to carry forward identified actions to improve the system?

Champions may include individuals trying to change policy or practice of their own institution from within, or they may be acting on behalf of their institution to support change by other actors. Both types are valuable to identify and work with. The number of champions that the team identifies will vary by context. In some instances, it may make sense to identify multiple champions from one organization, to ensure consistency in the event of staff turnover.

The guidance on page 12 on [engaging key actors](#) could be useful as you complete the stakeholder analysis and engage with champions.

Outputs:

- List of potential “champions” identified to take the process forwards

Step 4. Internal Review and Decision Workshop

Depending on the length and complexity of this stage, the facilitation team may hold regular meetings to share knowledge and resources, update the stakeholder analysis spreadsheet together, and note any potential champions.

After a sufficient amount of background information on the CIS system has been collected through the literature review and KIIs, the facilitation team should hold an internal workshop to review the information, highlight areas for further exploration, and plan the next steps. At this workshop, the team will decide on the geography, type of CIS, and farmer typologies to target. Typically, this workshop will take between half to a full day.

A CIS system can be mapped at different geographical scales depending on the issue to be addressed, from global or international scale, to country-wide scale, or regional, district, commune or village-level scales within a country. Choosing the geographical scale to focus on is key to determining which actors to involve and what level of detail will be necessary. For example, focusing on one particular CIS within one region of a country will require a different level of effort and lead to different outcomes than focusing on multiple types of CIS across an entire country.

As the facilitation team decides on the geographical boundaries, the team will also need to define the end users of interest and the range of climate information services that might be useful to them. This decision may be based on the scope of a particular program. For example, using this methodology in a program focusing on the millet value chain, the end users may all be rainfed millet farmers. In other cases, farmer typologies may be broader, as in the

pilot in Niger, which included both male and female farmers in two regions of Niger who grow different crops and therefore may have different CIS needs. Climate information needs will be different for farmers growing irrigated crops, for pastoralists, or for other categories of farmers, so it is important to think through what type(s) of CIS should be included in the mapping and discussions.

These decisions are ultimately subjective but should come after evidence-based discussion and deliberation. The *CIS Selection Criteria Tools* ([Annex 4](#)), along with the *Stakeholder Analysis Template* ([Annex 3](#)), may aid you in making these decisions.

Starting to think about sustainability from the beginning is key to ensuring that action plans that arise during the process can be carried forward after external partners leave. One way to begin thinking about this is to draft a Sustainability Plan during the internal workshop. Identifying champions is one part of this, but the plan can also include actions related to the facilitation team's exit strategy and financial and logistical considerations. It can be revisited with other stakeholders, particularly the champions, as the process moves forward. See the additional guidance section on page 10 for more information on [how to develop a sustainability plan](#).

The facilitation team should document the rationale behind all key decisions in order to maintain transparency and record the assumptions upon which the decisions were made so these can be reviewed and monitored over time and adjusted when necessary. Documentation and assumptions should be shared with key stakeholders. Key stakeholders may differ depending on the program and the assumptions made, but they could include farmers, national meteorological services, Champions, and others. It is crucial to share information with permanent system actors who will remain involved beyond the program.

Outputs:

- Description of the CIS system framing using [Annex 4](#), *CIS Selection Criteria Tools* (including the geographical system boundary, prioritized CIS type and farming typologies, and rationale for these choices)
- Draft [sustainability plan](#)

The team may decide to collate these outputs into a single Stage 1 report.

III. Learning, Impact and Feedback

Stage 5 provides broad guidance on **Learning, Impact and Feedback**; however, these themes are important across each one of the Stages. The following points describe several moments during Stage 1 where the facilitation team should pause to reflect, evaluate and adapt the approach if needed.

1. After meetings with key experts and stakeholders, the facilitation team should reflect on how the conversations went and whether the questions asked solicited the types of responses that the team was looking for. It may be necessary to adapt the questions for these initial contact meetings to better engage these actors.

Key Recommendations for CIS System Framing Decisions

Use the *CIS Selection Criteria Tools* ([Annex 4](#)) to make an evidence-based, pragmatic and transparent decision on where to focus your energies.

Concentrate your efforts on one or a small number of farming typologies. Starting small provides a better chance to achieve lasting improvements.

When deciding which farming typologies to focus on, make linkages to potential improvements to food production, crop yields, nutritional security, economic opportunity and potential impact on poverty. Other important criteria include gender empowerment, social inclusion and environmental sustainability.

Consider strategic and practical influences when choosing your focus CIS and end users, such as donor priorities and accessibility of farming groups.

2. During the internal review workshop, set aside time to reflect on whether the team has consulted with a wide enough range of stakeholders, and how the approach to engaging with stakeholders has gone to date. Has the team considered the full range of actors that may be involved in the CIS system (such as women's groups, youth associations, agro-dealers, or rural advisory services), and included them in consultations? Has the team captured sufficient information from the different conversations and literature to help guide the next steps? If there are still too many unanswered questions, the team may decide to prolong Stage 1 and set a date for another internal review workshop before moving forward.

IV. Additional Guidance and Tools

In the following section we provide additional guidance for:

- Developing a sustainability plan
- Identifying key actors
- Engaging key actors

Developing a Sustainability Plan

The process of developing a Sustainability Plan helps the team think through and document actions to take to ensure the long-term impact of the participatory CIS mapping outcomes. It helps the team to plan for how the recommendations and action plans that emerge from the process can be sustained after the program ends or after the temporary facilitators' exit. It also helps orient the team to ensure that the process leads to changes in the CIS system that create lasting improvements in farmers' uptake and use of CIS.

Key components to include in a Sustainability Plan include:

- The **rational, purpose and objectives** that describe what the plan is for and what you hope to achieve by it.
- The **overall strategy or approach** that will be adopted to achieve these objectives.
- The actions or activities that will be carried out to achieve the objectives, including the **roles and responsibilities** of temporary facilitators and permanent actors in these activities and how these may change over time, ideally shifting more to the permanent actors.
- The **resources** needed to implement the Sustainability Plan, whether human, financial, or material, and where these will or could come from.

The Sustainability Plan requires identifying permanent actors who are motivated to engage with the facilitation team and to carry the process forward after the facilitators leave. These key actors can include the champions as well as any others whose long-term involvement is necessary for sustainable change to the CIS system. The *Influence-Relevance Matrix* ([Annex 5](#)), which is also outlined on page 11 in [identifying key actors](#), is useful to help identify these champions, as is the guidance on page 12 on [engaging key actors](#).

Questions to consider when developing the Sustainability Plan include:

- Who are the actors that have the power to make decisions that can result in lasting changes to the CIS system? What strategies are needed to engage with these actors?
- If you cannot directly connect to these actors, are there other actors with whom you can connect who can influence them to bring about that change?
- What events, meetings, groups, or other spaces exist where actors learn about, review or make decisions on CIS policy and practice? How can you engage with these spaces, and do new spaces need to be created?

Review and update the Sustainability Plan periodically to take into account changes in resources, roles and responsibilities, key actors' and champions' engagement and availability, as well as lessons learned about what is and is not working to engage with these actors and sustain and support lasting changes. The sustainability plan is a living document and should be updated throughout the life of the program.

An exit strategy can also be included in the Sustainability Plan. To develop this strategy, the facilitation team should think about how the results of the process, particularly any action plans and recommendations developed during the mapping workshops, can be carried forward after the workshops have taken place. Specific strategies will depend on the context; however, they could involve identifying who is best placed to carry forward actions on certain recommendations, gaining the interest and commitment of a range of different stakeholders, and transitioning facilitation and leadership from the temporary facilitation team to the permanent actors for sustainability and ownership of the results.

Identifying Key Actors

The facilitation team's temporary role and the centrality of permanent system actors' participation and leadership in the process are fundamental principles of the approach. When actors come together to discuss problems in their sector and agree on actions they can take, change in the system is more sustainable than if the facilitators design the solution and try to get buy-in from the actors once the intervention is designed. Solutions designed and driven by CIS system actors themselves are more likely to be taken up by others. This is one reason why it is important to have the right actors involved.

The process of identifying key actors begins in Stage 1 and continues in Stage 2. By the end of Stage 2, the facilitation team should understand the CIS system well enough to know who needs to be brought together in the Stage 4 CIS mapping workshops and what actors may benefit from Stage 3 empowerment activities.

How to Identify Key Actors: Relevance and Influence

To facilitate change in a CIS system in a participatory manner, it is necessary to identify a subset of key actors to engage with. Two dimensions that make some actors "key" within the system are how **relevant** and how **influential** they are. The *Influence-Relevance Matrix* shown on page 12 is a useful tool for capturing this information, and more information and a template for this matrix is found in [Annex 5](#).

- **Relevance:** how important an actor is to the functioning of the information system. To understand how relevant an actor is, consider the following questions: Would the system's performance suffer if this actor was not there? Would the functions that this actor carries out be taken up by another group of actors, or would such functions cease to occur? If the actors' functions can be replaced by another group, how easily or quickly could this happen?

Keep an open mind as an actor that appears to be irrelevant might turn out to be supporting some functions of the system or could be an unexpected catalyst or driver of change in participatory systems mapping.

- **Influence:** how capable an actor is to either change things directly or mobilize others to change. Some actors have explicit or direct power to set a rule that affects every operator in the sector across the country; for example, a government regulator. Other system actors have more invisible or indirect power. For example, a key meteorologist in a research center may not produce significant information on their own, but their support for a particular piece of the system may influence their peers, which in turn can lead to structural changes in the information system.

Influence-Relevance Matrix

Power and Influence	High	<p>Stay open minded about these actors. They are powerful, and they may turn out to be important drivers of change, despite not seeming very relevant at this stage. If they show an interest, be quick to provide them with information about the process and keep them informed.</p>	<p>Actively target these actors. They are both important parts of the system and the “movers and shakers” that have power to change things. Engage them as early as possible and throughout the process.</p>
	Low	<p>Stay receptive towards these actors. Although they do not seem very relevant at this stage, they may prove to be as you continue to build your understanding of the system. If they show an interest, provide them with information about the process.</p>	<p>Stay open minded about these actors. They are an important part of the system. Ignoring them may have severe unintended consequences. Keep them informed about the process.</p>
		Low	High
		Relevance	

Engaging Key Actors

CIS Actors are Motivated to Join the Process

The process of stakeholder engagement starts during Stage 1 when key stakeholders are first contacted and develops progressively through Stages 2-4. It is important to consider the CIS system framing that the team has completed and the scale and scope of the CIS system under consideration in order to engage as many of the CIS stakeholders within that system as possible. To make sustainable changes in the system, all key CIS actors need to be engaged because all play a role in the creation, sharing or use of the information.

It is best to engage with stakeholders as early as possible, and ideally all key stakeholders will be fully engaged before or by the end of the national-level workshop (Stage 4). However, if key actors are absent from the process, you will need to use your best judgement on how to proceed, deciding whether it is better to wait until you can get their full engagement or to keep going with the committed actors and make plans to bring the others in later. To engage with actors, you need to understand them, find ways to communicate that will interest them, and demonstrate the value of the activities to their work. The following guidance will help you to do this.

Building on the Stakeholder Analysis for Engagement

The *Stakeholder Analysis* ([Annex 3](#)) that begins in Stage 1 will help the facilitation team identify the incentives and motivators that encourage each of the stakeholders to engage in efforts to improve the CIS system. It can also help to identify those stakeholders that are most essential to engage in the process (Key Actors) and who should therefore be a target of your efforts. To engage the Key Actors that have been identified during this analysis, several recommendations and tools are provided here.

1. **Key Actor Profiles** ([Annex 6](#)) can be a useful tool to keep track of the backgrounds, interests, and motivation of each Key Actor. The facilitation team should prepare a profile for each Key Actor they want to engage, using information from the stakeholder analysis. Complete the additional information noted in the profile as you learn more about their interests and motivations, and record changes over time.

2. **Build relationships first.** If the actors you want to engage have already met you, understand your objectives and respect you, it will be much easier to get them involved in participatory workshops. Look for opportunities to connect with them and raise awareness before sending out invitations. For instance, you might engage them as key informants in your preliminary mapping and analysis process (see Stage 2) or consult them for background information on the CIS during Stage 1.
3. **Spend time thinking about the messages and messengers that you use to encourage actors to engage.** You know you've used the right messaging when it feels that you are doing the CIS system actor a favor by inviting them, not that the actor will do you a favor if they attend. Don't just think about what the message is, also think about who is sending out the invitation, who is convening and hosting the meeting, and what format you use. Seniority is important in many contexts, so it is important to ensure that hierarchies have been respected when reaching out to stakeholders. Also, building on relationships that already exist may help the actor be more open to the invitation to engage. The format should also be adapted to the context; more formal invitations may be needed for workshops, while emails and phone calls may be appropriate to set up other meetings.
4. **Engagement is an ongoing process.** Even if actors attend the first activity, the team must make sure they remain engaged afterwards. Actors will stay engaged if they can see the benefits; however, there may be times when progress is slower than some actors had hoped. At these times, keeping actors engaged is as critical as getting them interested in the first place. One way to do this is through regular communication efforts, such as newsletter updates, periodic meetings, or phone calls. These should be added to your work plan (see Stage 2) as part of the communication strategy. Another might be to ask the actor to undertake a specific task that leverages their expertise or network, such as asking them to review a report or set up a meeting. The facilitation team should review levels of engagement periodically and adjust the strategy if needed.

Developing Engagement Strategies

By understanding the incentives that drive each of the key actors, you are well placed to devise an **engagement strategy** to bring them into the process. This has two parts:

1. **The communication message** you use to attract each key actor to engage in the process. Communication messages may need to be tailored for different key stakeholders to increase the likelihood of their engagement (see point 3 above).
2. **Initiation of relationships with key actors.** Two straightforward ways to reach out to key actors are to ask for an informational interview (Stage 1) or to invite them to be part of the preliminary mapping process (Stage 2). Relationships can also be established by attending relevant workshops, conferences, networking events and roundtables organized by a third party.

Keep in mind the following key questions:

- What content (message) is likely to attract each key actor?
- What opportunities are most suitable for communicating with each key actor in ways that will engage them (e.g. workshops, field visits, out-of-work social occasions)?
- Who is the best person to communicate messages to the key actor – a particular member of the facilitation team or potentially a third party?
- Who within the key actor's organization should you target, and how will you plan to follow up?

Be sensitive to the fact that in many organizations, knowledge is a protected asset and not everyone may be willing to share their contacts or background knowledge with you directly. Discuss with actors the best ways to deal with this and be sure that you are culturally sensitive.

STAGE 2

CLIMATE INFORMATION SERVICES: PRELIMINARY SYSTEMS MAPPING AND ANALYSIS

Facilitators start to understand the system and identify climate information pathways and the roles of key actors

I. Summary of Key Information

Objective	To use the knowledge and research gathered in Stage 1 and the insights of a small group of key CIS stakeholders to: <ul style="list-style-type: none">• Develop a preliminary CIS Systems Map• Update the Sustainability Plan• Outline the Work Plan for Stages 3 and 4, including a Communication Plan and plan to track change in the system
Purpose	To gain a better understanding of the CIS system, including the key stakeholders and champions, their relationships and communication pathways.
Time	3 to 6 days, depending on the complexity of the CIS system and the diversity of the targeted end users and other stakeholders.
Tools	Annex 7 : Work Plan Template Annex 8 : Tracking Achievements Template Annex 9 : Example of Workshop Evaluation Form, Version 1 Annex 10 : Example of Workshop Evaluation Form, Version 2 Annex 11 : Facilitator Feedback Template
Process	<ol style="list-style-type: none">1. Internal Preparatory workshop (1-3 days) with facilitation team2. Preliminary mapping workshop (1 day) for facilitation team, preferably with a small number of trusted key CIS stakeholders3. Internal Reflection Workshop (1-2 days) with facilitation team4. Document all key decisions, assumptions and learning
Outputs	<ul style="list-style-type: none">• Updated stakeholder analysis spreadsheet, identifying knowledge gaps• Updated Sustainability Plan based on engagement with the key stakeholders• Work Plan for Stages 3 and 4, including Communication Plan and plan to track change• Activity reports and evaluations based on the needs of the program; for example, if this methodology is done within a program, activity reports could feed into required quarterly or annual reports; if stakeholders request additional information, activity reports of workshops or meetings could be distributed• Preliminary CIS systems map

Aim

By the end of Stage 2, the facilitation team will have developed a preliminary CIS system map with selected external participants, and sufficiently deepened their understanding of the CIS system to be able to update a Sustainability Plan and refine the Work Plan for Stages 3 and 4.

II. Key Steps

Step 1. Internal Preparatory Workshop

Stage 2 begins with an internal preparatory workshop of 1-3 days, which can take place after Stage 1's internal review and decision workshop. The main objective of this workshop is to draw an initial CIS systems map based upon the information gathered in Stage 1 to determine whether the team has sufficient background knowledge of the system and its stakeholders and comfort with the mapping process to engage external participants.

If, during this preliminary mapping, the team realizes that they do not yet have sufficient information on the system to be comfortable beginning mapping with external stakeholders, then they should return to Stage 1 and conduct additional research and KIIs to fill critical information gaps. If, after the preliminary mapping, the team feels confident to move forward, then they should agree on the champions or experts who should participate and the objectives of the preliminary mapping workshop (see next step).

This internal workshop can also be used as a training opportunity for the facilitation team to practice participatory systems mapping and improve their skills prior to facilitating with others. Guidance on [preliminary mapping and analysis of CIS systems](#) is provided on page 17.

Step 2. Preliminary Mapping Workshop With External Participants

After the internal preparatory workshop, the team then hosts a 1-day preliminary mapping workshop with a small group of key informants (no more than 6), ideally including the champion(s). Key informants should include those with experience working or living in the targeted intervention area, who can advise the facilitators on the correct terminologies and approaches for effective communication in the local context. To lead this process and build their capacity to conduct future workshops, the team may want to invite an external facilitator who is already familiar with the process and tools for participatory mapping and analysis of CIS systems. If applicable, ensure that there are translators at the workshop and materials are translated properly, so the workshop is accessible to participants who speak local languages.

At this workshop, the facilitation team will present and get feedback on the Stage 1 CIS framing (geography, end users, and farming typology). The facilitation team and key informants will then develop a Preliminary CIS Systems Map and identify an initial list of blockages and opportunities within the system. While completing the map, the facilitation team will gather inputs from participants to further complete the list and analysis of key stakeholders and champions, as the participants may think of actors within the system that the facilitation team had not yet identified. Additional guidance on [identifying issues and opportunities in the system](#) is provided on page 20, and on [identifying key actors](#) is in Stage 1.

Finally, this workshop is an opportunity to review and discuss the draft sustainability plan from the previous stage, and to gain input and gauge interest and commitment from the champion(s).

Step 3. Internal Reflection Workshop

During this 1-2 day internal reflection workshop, the facilitation team should:

- Review and finalize the Stage 1 framing decisions, incorporating any new feedback and input from the participants at the preliminary mapping workshop.
- Identify knowledge gaps and highlight areas for further research and learning.
- Update the stakeholder analysis spreadsheet based on the information gained during the preliminary mapping workshop, adding any new actors or other information.
- Review and update the Sustainability Plan.
- Refine the Work Plan for Stages 3 and 4 based on this analysis, which should include a plan for communication and tracking change (see [Annex 7](#) and [Annex 8](#)).

This workshop is also the time to decide whether the facilitation team is ready to progress to Stages 3 and 4 or whether more information is required.

Further support for this step can be found in the Additional Guidance and Tools section, [reflecting and planning for the next stages](#) on page 20. The Stage 1 guidance on [engaging key actors](#) and Stage 5 guidance on [communicating lessons learned](#) also includes relevant information on planning for communication.

Outputs:

- Updated stakeholder analysis spreadsheet
- Updated Sustainability Plan based on engagement with the key stakeholders
- Work Plan for Stages 3 and 4, including communication plan and plan to track change
- Activity reports and evaluations based on the needs of the program
- Preliminary CIS systems map

III. Learning, Impact and Feedback

There are several points during Stage 2 when the facilitation team should reflect, evaluate, and adapt the approach in response to what is being learned. These include:

1. During the Internal Preparatory Workshop, the facilitation team should reflect on whether the Stage 1 background research was sufficient to complete the internal draft CIS map. If it was not, take time before moving on to the external mapping to fill critical knowledge gaps. At this point, the team should discuss how to improve their Stage 1 approach: Should more stakeholders be interviewed? Are additional questions needed in the interview guide? Were relevant reports overlooked in the literature review? Document all learning and adjustments.

Key Recommendations for Preliminary Mapping

Keep your first attempt at creating a CIS systems map informal, fluid and energetic. Let it be a brainstorming exercise and be prepared to revise or even start again from scratch as more information becomes available.

Use the preliminary CIS systems mapping as a process to identify the CIS services and actors that you will need to engage in the participatory activities in subsequent stages.

Be as specific as possible to capture the unique context of the CIS system in the geography selected. For example, for mapping taking place at a sub-national level, rather than writing “radio stations,” identify the specific community radio stations that are part of the system.

Identify your knowledge gaps, record your key questions, and plan further investigation to build your understanding of the CIS system in the following stages.

- At the end of the Preliminary Mapping Workshop, the team should conduct an evaluation with all participants to reflect on whether the objectives were achieved, what was learned, and what could be improved. Two sample evaluation templates are provided in [Annex 9](#) and [Annex 10](#).
- The Internal Reflection Workshop provides an opportunity for the facilitation team to discuss how the external Preliminary Mapping Workshop went from the facilitators' perspectives, what was learned from the external evaluations, and how subsequent workshops can be improved. The templates noted above can be adapted to this purpose, and the *Facilitator Feedback Template* in [Annex 11](#) can also be used to help facilitator's monitor and improve their facilitation skills.

IV. Additional Guidance and Tools

In the following section we provide additional guidance and tools for:

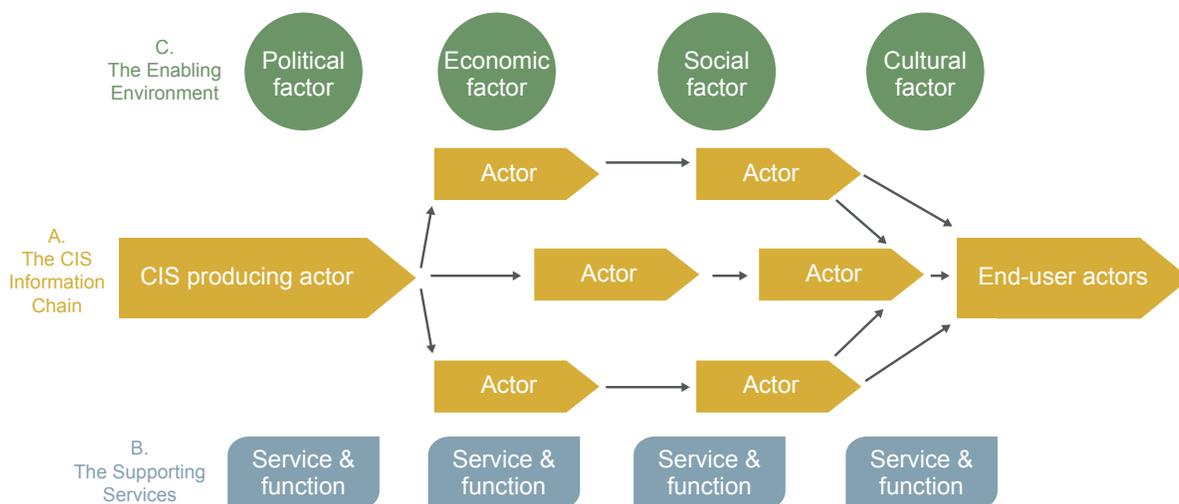
- Preliminary mapping and analysis of CIS systems
- Identifying issues and opportunities in the system
- Reflecting and planning for the next stages

Preliminary Mapping and Analysis of CIS Systems

Participatory systems mapping will be done at least twice in Stage 2, first during the internal preparatory workshop and then in the preliminary workshop with a select group of external partners. It will also be used in the following stages. Guidance on how to conduct this mapping is provided here.

The CIS systems map is composed of 3 key parts as shown in Figure 2 below:

- The CIS Information Chain:** the main middle section of the map depicts the flow of information from CIS providers on the left to the targeted end user(s) on the right.
- The Supporting Services:** the bottom third of the map displays the critical inputs, services and advice that the CIS actors need in order to play their role in the CIS system. For example, translation and communication services may be support functions.
- The Enabling Environment:** the top third of the map includes formal aspects of the enabling environment (e.g. policies and regulations), informal aspects (cultural norms), and infrastructure (e.g. roads, etc.) that can influence the CIS system.



Note: This is a model and the map will likely be much more complex in reality. For example, the CIS information chain could include feedback loops with arrows going in both directions. Often those feedback loops are not yet well-developed, and the workshops offer an opportunity to identify blockages and pathways to improve the functioning of the feedback systems.

Figure 2. The CIS systems map

A. Mapping the CIS Information Chain

Be clear what CIS you are mapping: Are you mapping every CIS that is or could be of use to the farmer, or one that is of particular interest (e.g. seasonal or daily forecasts, 10-day bulletin, hazard warnings)? Limiting yourself to one CIS per map will make it simpler for participants to map and analyze the system. On the other hand, combining all current or potential CIS in one map may provide a more holistic view and possibly make it easier to identify common actors and issues.

Where to start? Begin with the section of the information chain that is best known to the participants.

For example, when working with farmer end users, start on the right-hand side and work towards the left, asking the farmers from what sources they receive climate information, and from where those sources receive their information, drawing the connections between actors as far back as the participants can. When working with CIS providers, such as a meteorological agency, start on the left side of the map and ask with whom they share their information and where the information goes from there, as far along the chain as the participants can answer. With mixed groups of providers, interpreters, and farmers, you may start at one end and work towards the other, or start at both ends and work inwards, to map the system within the limits that were defined in Stage 1 based on the perspectives of all of the participants present. In all cases, the facilitator should ensure that all participants' voices and perspectives are heard and included.

Scale & level of detail of the CIS System Map: The map should contain all the actors that the participants can identify that play a role in producing and communicating climate information from the CIS provider to the end users. By linking the actors, the map shows how information flows from one actor to the next, adding any details about format and channels used. The map will naturally cover different geographical levels, from the local to the national or international level, depending on the boundaries set during Stage 1. The level of detail will depend on the purpose of the mapping and on the participants' collective knowledge of the system. In some cases, it makes sense to map the system in detail at a very local level. In other cases, it makes sense to take a broader lens. It is okay to identify parts of the chain that are not well known or understood as learning more about these areas can become an objective for Stages 3 and 4.

B. Mapping the Supporting Services

After the CIS Information Chain is complete, **map the supporting inputs and services**, adding these to the bottom of the map. One approach to doing this is to move along the core chain actors and ask, for each actor, "What inputs, services and advice does this core actor use or need to play their role in the CIS system?" Write down functions rather than specific actors in this area of the CIS Map. Examples could include: training for agricultural advisors, agricultural research on climate resilient technologies, translation services into local languages, internet or mobile phone services, agro-advisory services, agro-input supplies, financial services, or funding sources/donor financing. You do not need to draw lines linking these functions to specific actors, but it may be helpful to position them according to the specific part of the chain where they provide the most support: to the left if they mainly support the information provider, middle for intermediaries, and to the right if they support mainly end users. There is a space to capture these supportive services in the *Stakeholder Analysis Template* ([Annex 3](#), see multiple tabs).

C. Mapping the Enabling Environment

The next step is to **map the enabling environment** on the top section of the map. This involves identifying the elements of the external environment that shape the way the system functions. For example, supportive policies at national level may provide a positive enabling environment for CIS systems. Certain cultural norms may also be an element of the enabling environment that impacts how information flows and who receives what information. As with the supporting services, it could be helpful, where relevant, to arrange the issues in alignment with the part of the actor chain that the issue has the most impact on, with elements of the enabling environment more relevant to the information providers on the left and to the end users on the right. However, some elements of the enabling environment may apply to every actor along the chain, so placement on the map may not be as meaningful. There is a space to capture these elements of the enabling environment in the *Stakeholder Analysis Template* ([Annex 3](#), see multiple tabs).

Identifying Issues and Opportunities in the System

The point of mapping the CIS system is not simply to create the map itself, but to use the mapping process to spark dialogue among participants about what is or is not working well in the system and build motivation for change. The mapping process should be used to guide participants to consider blockages and opportunities within the CIS system. This can be done through guiding questions used during the mapping process (see *Focus Group Discussion Guide* in [Annex 17](#) used during Stage 4), as well as having participants look at the completed map and identify where key constraints and opportunities exist within the system. These constraints and opportunities can be noted on separate cards or on the map itself and prioritized for potential action. The issues and opportunities can also be catalogued using the *Stakeholder Analysis Template* ([Annex 3](#)).

Once you have a first chain that shows the flow of information from producer to users, **considering alternative pathways for information to flow** can help the group identify potential opportunities to improve the system. Do other actors play a role in a parallel information-sharing chain? Where and from whom do farmers typically get other information? Consider the CIS data sources available and the ways in which they are used. You may find that an information chain exists which currently doesn't connect to the farmers, but instead serves other end users; for example, agricultural advisor service agents, agro-dealers, or commercial farm managers. Would smallholder farmers benefit from access to this information? Are there other information services in the area, such as those used for health or education, that could be leveraged for CIS?

It is important to remember that the preliminary mapping and analysis described in Stage 2 is just an initial snapshot of the system and should be used as a tool to support the team in refining the plan and approach in the following stages. The preliminary map has not yet been validated by end users, intermediaries and service providers, who will provide critical details and new insights during the participatory mapping in Stage 4. While you may have an initial idea of the issues in the system at this point, stay open to the different perspectives that will come during the participatory mapping and analysis in Stage 4.

During Stage 2, the facilitator and other external participants do not need to fully catalogue the issues and opportunities or identify solutions to blockages. This is best led by the actors who are involved and affected, who have the best understanding of their interests and motivations, and who can negotiate new arrangements and collaborations where their incentives align. Guidance on how to facilitate this process with the CIS system actors is found in Stage 4 and Stage 5.

Systemic blockages or constraints:

a situation or process that hampers actors' ability to make the system work better, i.e. become faster, more accurate, more reliable, more inclusive, more efficient and/or more productive.

Systemic opportunities: A moment in time or a combination of favorable circumstances that create an opening or leverage point that CIS actors can use to achieve their objectives and that would result in the system becoming faster, more accurate, reliable, inclusive, efficient and/or productive.

Reflecting and Planning for the Next Stages

By the internal reflection workshop in Stage 2, the facilitation team should have sufficient information and knowledge about the CIS system to develop a detailed work plan for Stages 3 and 4. This should include plans for the participatory workshops, a communications plan for how you will keep stakeholders informed throughout the process, and a plan for tracking change in the system. To track change, the facilitation team can use a more formal monitoring and evaluation plan if necessary for your particular program, or more informal and participatory plans using the guidance for tracking change provided in this guide (a description of the annexes is on the following page).

The first attempts at mapping the system may uncover information gaps. Small information gaps could be addressed as the team progresses, but if the team feels that the information gaps are too large to move to the next stages, the facilitation team should gather more information from desk-based research or KIIs with system actors for further stakeholder analysis prior to moving forward. For example, the team may not have been able to meet with a particular meteorological services representative, or been able to identify an NGO that has been providing a particular farmer training in the region. These may be large information gaps that would delay moving forward. It is important to remember that this is not a linear process, but rather learning and feedback play an integral role throughout the participatory process.

Templates and tools are provided in the following documents:

- *A Work Plan Template (Annex 7)*: On this worksheet, the team can plan the different activities and specific actions needed for Stages 3 and 4 in detail, including budget amounts for each activity, who will take responsibility for each action, and a timeline. This format can be adapted to each program's needs.
- *Tracking Achievements Template (Annex 8)*: This optional template can be used to track what is working well in the process, both internally and with key stakeholders, and plan for sharing those achievements. It also includes space to plan for communication about progress made with CIS stakeholders.

STAGE 3

STAKEHOLDERS' EMPOWERMENT FOR ENGAGEMENT

Stakeholders at every level of the CIS system have the capacity and skills to contribute to the design and delivery of better systems that effectively communicate climate information

I. Summary of Key Information

Objective	To enhance the capacity and skills of all stakeholders to contribute to the design and delivery of better CIS systems that will reduce climate-related risks faced by smallholder farmers and improve their productivity.
Purpose	To empower stakeholders so that they are capable, willing and able to engage proactively and on an even footing with more powerful actors involved in the CIS system. The activities in Stage 3 are key to the success of the participatory CIS mapping and analysis in Stage 4 and to subsequent improvements of the system.
Time	This stage continues throughout the implementation period, running most intensively from the end of Stage 2 to the final mapping workshop in Stage 4.
Tools	Annex 12 : Identification and Analysis of Marginalized Actors Annex 13 : Key Competencies and Skills for Marginalized Actors
Process	<ol style="list-style-type: none">1. Define marginalization in the context of the CIS system and identify the most marginalized actors within the system2. Undertake a needs assessment: identify skills that require strengthening3. Plan and carry out activities with marginalized stakeholders to address these needs4. Work with other stakeholders to ensure they can engage effectively with marginalized stakeholders
Outputs	<ul style="list-style-type: none">• An activity plan based on an analysis of marginalized actors and an assessment of their needs, connecting to the overall engagement strategy from Stages 1-2• Activity reports and evaluations based on the needs of the program, similar to Stage 2

Aim

This stage provides guidance on empowering marginalized stakeholders so that they become capable, willing and able to engage proactively and interact on an even footing with more powerful actors involved in the targeted CIS system. This stage is about identifying the most marginalized actors and preparing them to co-create CIS solutions that work for them. It includes enhancing their dialogue and negotiation skills to fairly represent their peers and interests in participatory workshops with more powerful actors. Empowering marginalized actors also requires helping non-marginalized actors to engage productively with those who are marginalized. This stage aims to empower marginalized actors to engage in CIS systems, but does not intend to address underlying factors that cause marginalization. Marginalization is often caused by a multitude of long-term factors that are beyond the scope of this methodology.

II. Key Steps

Step 1. Define Marginalization

Stage 3's first step is to define *marginalization* within the particular CIS context, noting its characteristics and the criteria you will use to assess it. Consider barriers for inclusion that may involve age, socioeconomic status, ethnicity, gender, religion, language, disability, and/or education level, among others.

Guidance is provided in the Additional Guidance and Tools section for [understanding marginalization in the CIS systems](#) on page 28.

Step 2. Identify Marginalized Actors and Undertake a Needs Assessment

Once the facilitation team has considered the definition of marginalization, they then need to identify marginalized actors in the system and assess what is required to enable these actors to participate in the co-creation of CIS solutions that better meet end users' needs. To do this, the facilitation team can use a process of reflection and discussion with marginalized actors about the roles they can play and the value that they can bring to improving the CIS system. The *Identification and Analysis of Marginalized Actors Tool* ([Annex 12](#)) can help with this needs assessment. This is intended to be an internal tool for the facilitation team to assist in designing the empowerment phase. There may be cases in which it is useful to utilize this tool in a participatory way, for example with a homogeneous group of marginalized actors (e.g. women or youth). In those cases, the facilitation team might find it more appropriate to frame the questions positively in terms of individual skills or organizational capacities that should be strengthened or acquired.

Using the information gained from the preliminary CIS mapping and stakeholder analysis in Stages 1 and 2, identify the actors that might benefit from additional information, training and skills building. Draft a list of their potential needs for empowerment. Refine this list of skills and capacities that require strengthening through interviews and group discussions with marginalized actors. These skills and capacities might include stakeholders':

- Understanding of the CIS system and how information flows.
- Communication skills to express their perceptions of the CIS system.
- Capacity to identify and explain factors that prohibit them from receiving or using climate information.
- Ability to express their ideas for improvements within the CIS system and how the CIS system could better meet their needs.

While this guidance mainly focuses on smallholder farmers as potentially marginalized stakeholders, they may not be the only actors within the CIS system that could benefit from empowerment activities. Input and service providers, extension agents, radio broadcasters and other intermediaries may also benefit from information or activities which enable them to engage equally with more powerful actors, and therefore to contribute to and benefit from the systemic improvements being explored.

The facilitation team can update the Stakeholder Analysis and Key Actor Profiles and use the *Identification and Analysis of Marginalized Actors Tool* ([Annex 12](#)) if desired, and the *Key Competencies and Skills for Marginalized Actors* ([Annex 13](#)) to organize and present the analysis and the information about different actors. The preliminary CIS mapping and stakeholder analysis from Stages 1 and 2 is perhaps the most important exercise to understand who the marginalized actors are in the CIS system. However, this process is iterative, not linear. The facilitation team will need to regularly review and update the stakeholder analysis to identify if new actors are identified who would benefit from empowerment activities.

Furthermore, as it is impossible to empower every actor, it can be helpful to engage representatives who can inform and mobilize their peers.

Step 3: Design and Implement an Activity Plan to Address These Needs/Gaps

Empowerment for engagement is the process of providing CIS actors with a basic set of skills to kick-start positive engagement with other actors so that they can work together to overcome systemic barriers that result in an ineffective and poorly operating CIS system. Positive engagement requires open and honest dialogue with actors across the CIS chain on sometimes sticky, complicated, or sensitive issues that must be addressed to improve the CIS system. It is not simply providing training.

Each plan will be different, according to the context and needs of the stakeholders. The facilitation team may consider the following three questions and examples highlighted in this section to help develop and implement the activities for empowerment.

1. What Do We Empower the Actors to Do?

In order to prepare marginalized actors to initiate a proactive, creative and effective engagement with other CIS system actors, it is important to build three sets of basic competencies that are synergic:

- **Climate information literacy:** Focuses on marginalized actors' ability to understand the CIS system, the different actors within it, and how they can interact with the system to make their farming systems more productive and resilient.
- **Representation and mobilization:** Focuses on marginalized actors' abilities to organize and represent themselves, and the ability of the representatives to report back to their constituencies and to mobilize them to take action towards the plans and agreements made in the participatory process.
- **Dialogue and negotiation:** Focuses on the ability of marginalized actors, and particularly their representatives, to get their point across in meetings with more powerful actors and to communicate their needs and perspectives persuasively.

2. How Do We Empower Marginalized Actors?

There is no one correct set of activities to empower marginalized actors. The right choice of activities depends on their needs and the specific context in which the methodology is being used. In Niger, for example, the facilitation team decided to deliver a 1.5 days training to marginalized actors in which they collaboratively developed CIS systems maps, discussed the roles and responsibilities of key CIS institutions and decision-makers, and defined

common CIS terms. In Senegal, the facilitation team decided to conduct empowerment trainings in parallel with the systems mapping workshops by inserting explanations of key CIS terms, actors, and roles and responsibilities into the group conversations. In both Niger and Senegal, the facilitation teams used smallholder farmers' knowledge of traditional or indigenous sources of climate information as an entry point for these discussions, building on knowledge that participants already have.

In this section we look at three different activities that can be used and adapted for empowerment. A process of monitoring, evaluation and learning will enable you to adapt the approach based on results.

Develop CIS Opportunity Groups

After identifying the marginalized stakeholders in the CIS system, the facilitation team may want to organize **Opportunity Groups**: groups in which the members share similar motivations or interests. An Opportunity Group of farmers, for example, may share an interest in exploring how climate information can improve their farming systems. An Opportunity Group of radio broadcasters may share an interest in learning how to interpret and communicate climate information and secure a reliable source of funding for this activity.

The facilitation team can use the background information and work with groups to identify a list of priority issues that the Opportunity Groups may explore. For example, they could:

- **Explore CIS opportunities, challenges and solutions** with other actors in mapping workshops or other interest existing forum and share with their peers.
- **Explore adaptations to these opportunities, challenges and solutions with their peers** that will make them more appropriate or relevant to end users, and therefore increase the chances of uptake, sustainability and scalability.
- **Bring counter-proposals or new ideas** from the marginalized group back to the interest forum.
- **Test the assumptions** on which proposals for CIS improvements are based - do they sound feasible and will they deliver the proposed benefits?
- **Mobilize their peers around plans** agreed upon at mapping workshops or other interest forums.

If marginalized actors are already organized in existing groups that are representative and functioning effectively, these groups should be engaged. If not, the team may need to create new groups or provide capacity building for less functional groups.

Use CIS Systems Mapping to Improve CIS Literacy and Confidence

CIS systems mapping can be used to enable marginalized actors to build a common understanding of the CIS system before engaging with other actors. For example, it may be useful to conduct the participatory CIS mapping with separate groups of men, women, and youth smallholder farmers at community level before the community sends representatives to a regional or national CIS mapping workshop. At such a community-level workshop, participants can strengthen their knowledge of CIS through discussing with each other and with the facilitation team, and be better prepared to share their experience, knowledge and insight with other groups. Starting in small groups that then come together to share gives space for different voices to be heard and helps participants from different groups to see how each other views the system.

Exposing the marginalized actors to the mapping process before they do it with more powerful actors gives them the opportunity to think through their own perspectives on the system, including the actors that they interface with, the enabling environment and the supportive services that they find most meaningful. This can help them to build confidence to express their own views and suggestions once they are in the room with more powerful actors. During the pilots in Niger and Senegal, participants at village and commune-level mapping workshops appreciated the opportunity to learn from each other, and selected representatives for subsequent mapping workshops, who were able to take what they had practiced during the village-level mapping and expand on it at regional and national workshops, as they had developed the skills and confidence to do so.

Support Communities to Identify Who Can Best Represent the Group

The facilitation team can encourage communities and groups to go beyond popularity when choosing who will represent them in Stage 4 workshops, focusing instead on the potential representative's communication and mobilization skills. The chosen representatives, as a collective, should demonstrate the following behavior types:

- **Translators:** actors who can communicate ideas between different groups of stakeholders in ways that they can all understand; for example, between farmers and agricultural researchers, meteorologists, policy-makers, or extension workers.
- **Connectors:** actors who can connect different stakeholders through their strong skills in building interpersonal relationships and sharing their social capital.
- **Influencers:** actors who have the ability to influence the choices and investment decisions of their peers.

The facilitation team can explain the importance of these characteristics to the people who will select their representatives and to the leaders of the community. Depending on the context, participants could vote or come to consensus on who their representatives will be. The facilitation team can then work with the chosen representatives to strengthen these skills (see next point).

Help the Chosen Representatives Prepare and Take Part in Dialogue and Negotiation

To prepare the selected representatives to take part in multi-stakeholder meetings or workshops, the facilitation team can work with them to rehearse what will happen. By rehearsing, they gain practice in elaborating clear proposals, getting their point across in front of more powerful actors, and communicating their perspectives and needs persuasively, which can build confidence.

Gaining practice in these skills can happen during participatory CIS system mapping workshops, community or one-on-one meetings or other activities. Depending on what skills need to be strengthened, the facilitation team and the marginalized actors can decide what empowerment activities are most appropriate given the needs of the CIS actors and the dynamics of the particular CIS system in question.

3. What is the Role of the Facilitation Team?

The facilitation team aims to enhance all actors' understanding of the system, to enable them to listen to one another's perspectives, to get permanent actors to engage with each other and recognize challenges as areas for improvement, and to identify and implement solutions together.

The facilitation team should dedicate time as needed to building CIS literacy, representation and dialogue skills of the most marginalized actors to ensure they are prepared to express their perspectives in participatory multi-stakeholder workshops such as will occur in Stage 4, as well as to ensure their long-term buy-in to participate in improving the system. This may require flexibility to organize tailored empowerment activities such as CIS Opportunity Groups, focus group discussions, thematic workshops involving role play and dialogue exercises, and practice with the mapping exercise. Good facilitation skills are very important for these activities.

The following two facilitator guides from the Practical Action collection of PMSD training materials provide additional insights to help strengthen the skills of the facilitation team. They are located under [Step 4 Empowering Marginalised Actors](#) of the PMSD Roadmap:⁶

- *The Empowering Marginalized Actors Facilitator Guide* provides practical guidance on how to facilitate empowerment and capacity building processes.
- *The Facilitation Skills and Attitudes Facilitator Guide* will support teams to play their facilitation role in a more efficient manner.

⁶ Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org/roadmap-steps.

Step 4. Help Non-Marginalized Stakeholders Engage Effectively With Marginalized Stakeholders

The stakeholder analysis that began in Stage 1 will help the team to identify the extent to which more powerful actors, including the champions, are willing and able to engage effectively with the marginalized actors to develop and improve the CIS system. Understanding their incentives to improve the CIS system will help the team think through how to engage them in including marginalized actors.

Traditionally more powerful actors in CIS systems may include the national meteorological service, private sector actors, research institutions, agriculture advisory services, policy makers, implementing agencies and donors. Work closely with these actors, particularly those who are identified as champions, to encourage and support them to engage with marginalized stakeholders in the process to develop the CIS system so that it meets the needs of farmers. For example, they may need guidance on how to communicate with end users, such as overcoming language barriers by way of translation services, or overcoming challenges with technical jargon/ concepts by way of simple explanations.

The guidance on [engaging key actors](#) on page 12 of Stage 1 may be useful for this Step.

Outputs:

- An activity plan based on an analysis of marginalized actors and an assessment of their needs, connecting to the overall engagement strategy from Stages 1-2
- Activity reports and evaluations based on the needs of the program, similar to Stage 2

III. Learning, Impact and Feedback

The most important times for reflection on learning, impact and feedback during Stage 3 occur at the end of each empowerment activity with stakeholders. All activities should include an evaluation component to examine what worked well and what can be improved, including assessing how the facilitation went (see [Annex 11](#) from Stage 2). The facilitation team must take time to review the findings of these evaluations and make any necessary adjustments to their plans or approach. Sample workshop evaluation templates were shared in Stage 2 and can be adapted for use with empowerment activities.

To monitor actors' empowerment, the team can create a simple sheet to capture progress of each actor along various competencies using the *Key Competencies and Skills for Marginalized Actors*, as described in step 2 of Stage 3 ([Annex 13](#)). This template has a row to note each desired competency and progress can be noted in each column.

IV. Additional Guidance and Tools

In the following section we provide additional guidance and tools for:

- Understanding marginalization in the CIS system

DEFINITION

Marginalization in the CIS system: Actors who form part of the system, as climate information producers, intermediaries or users, but who face disadvantages due to a lack of bargaining power, knowledge, political influence, socio-economic status, etc.

Understanding Marginalization in the CIS System

A Model to Gain Deeper Insights Into the Marginalized Target Groups

A crucial part of working with marginalized actors and helping them to become active members of the CIS system is to understand who the marginalized really are. In order to do this, analysis of the marginalized actors is essential.

The flowchart model on the following page provides guiding questions that can be used to help conduct the analysis.

This model is not only useful for the facilitation team to better understand marginalized groups of CIS stakeholders, but also for the marginalized actors themselves to better understand their strengths and weaknesses; the actors, forces or factors that exacerbate their marginalization; and the opportunities that the CIS system offers that can help them achieve their goals.

Different Kinds of Marginalization

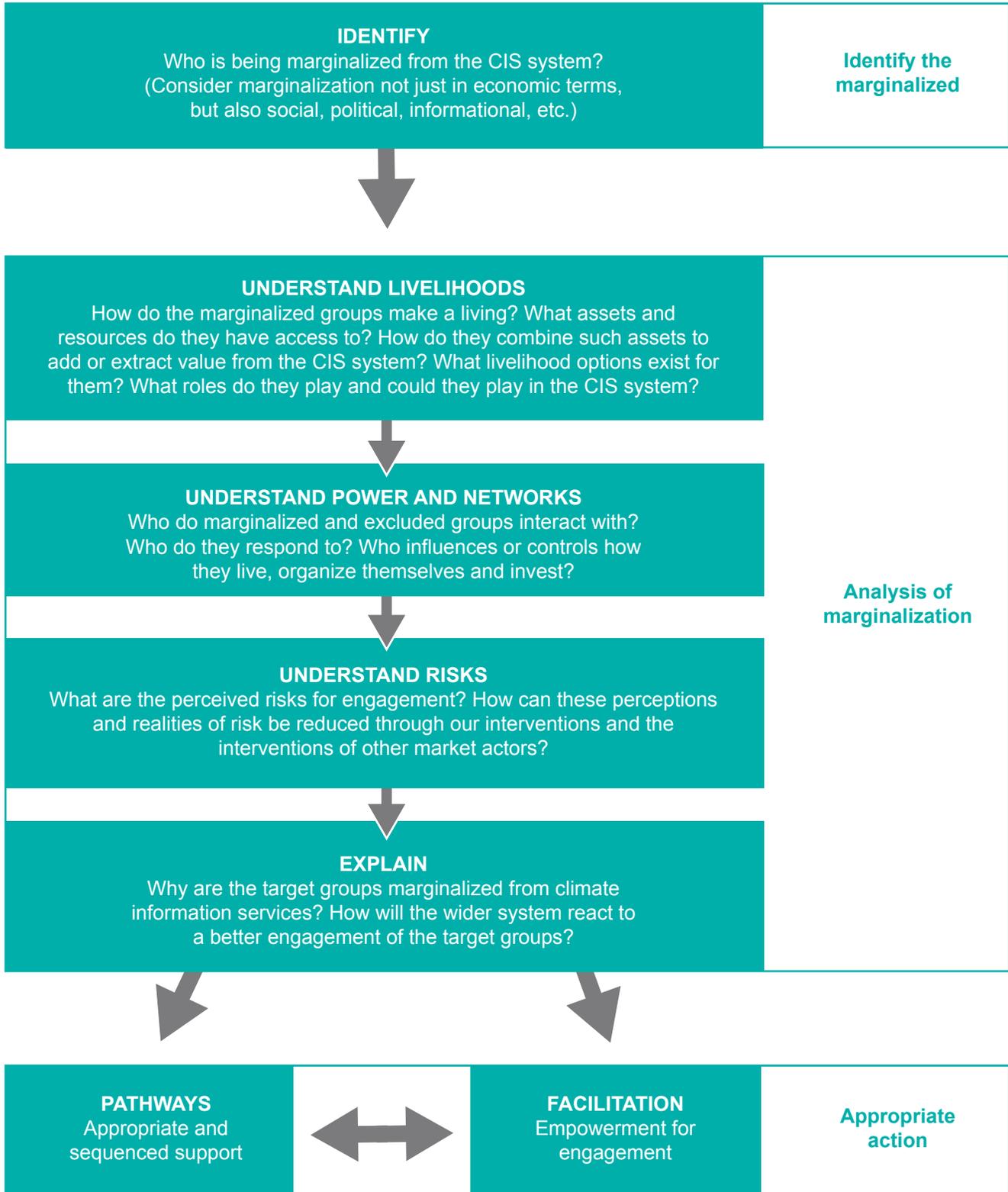
The term marginalization has different connotations for different practitioners. It is therefore very important to be clear what is meant by marginalization in the context of participatory CIS systems development.

From a systems perspective, marginalization can be manifested in many dimensions, including **economic** (e.g. low wages, lack of access to financial services), **social** (e.g. caste structures), **political** (e.g. political party affiliations), cultural (e.g. preconceptions about tribal backgrounds), **religious** (e.g. Shia and Sunni tensions in Middle East), **technological** (e.g. lack of access to affordable seeds or equipment), **informational** (e.g. low literacy levels, lack of access to market prices), and even **psychological** (e.g. self-marginalization driven by social stigma or fear) marginalization.

Facilitators can address marginalization more effectively in their work to develop CIS systems that work in favor of smallholder farmers if they:

- Look beyond the poverty line and strive to find the blockages and gaps in the system that are contributing to marginalization across these dimensions.
- See the CIS system in terms of more than just information transmission. CIS systems are full of opportunities for the poor – even for the poorest of the poor – by providing spaces to build relationships, self-esteem and knowledge.
- Use actors' self-interest as an opportunity to facilitate new relationships between CIS system actors. Relationships that are initially driven or motivated by purely selfish motives can eventually lead to friendship, trust, collaboration and innovation.

Figure 6. Guiding questions for understanding and addressing marginalization in the CIS system



STAGE 4

PARTICIPATORY CIS SYSTEMS MAPPING AND COLLECTIVE SOLUTIONS

The stakeholders understand the CIS system together and agree how it can be changed for the better

I. Summary of Key Information

Objective	<p>To facilitate a series of participatory CIS system mapping workshops from local to national levels that enable CIS stakeholders to:</p> <ul style="list-style-type: none">• Map the system as they understand it, including the information flow between actors, elements of the enabling environment and support services.• Identify blockages and gaps which affect access to and use of the CIS.• Identify opportunities and propose solutions to these blockages and gaps.
Purpose	<p>To understand diverse stakeholders' perspectives on access, uptake and use of CIS, to identify system blockages and gaps, and to formulate collective solutions.</p>
Time	<p>This stage can take from 2-6 months depending on the objectives and the boundaries set during Stage 1 and the number of workshops planned. CIS systems mapping workshops can take days to weeks to plan, and several hours to days to execute, depending on the objectives, scale, and participants. In addition, there should be ample time between workshops to meet with the facilitation team, with champions, and with key stakeholders to process the outputs of the workshop and plan the next workshop based on the analysis and engagement of the initial workshop.</p>
Tools	<p>Annex 14: Planning Participatory CIS System Development Events Annex 15: Focus Group Discussion Guide Annex 16: Seasonal Calendar Annex 17: Example of a National Workshop Program Annex 18: Feasibility Assessment for Opportunities Tool Annex 19: Action Record Template</p>
Process	<ol style="list-style-type: none">1. Plan the workshops: plan the whole series more generally, then plan each workshop in detail2. Conduct the village level and any other intermediary level CIS system mapping workshops3. Conduct a multi-stakeholder regional or national level CIS mapping workshop
Outputs	<ul style="list-style-type: none">• Workshop reports including CIS systems maps and photographic documentation and notes explaining the maps and discussions• Agreed action plan from the national level CIS mapping workshop• Workshop evaluations

Aim

This stage describes the process that is at the heart of participatory CIS system development: a series of workshops bringing stakeholders together to map and analyze the CIS system together. By providing a space for stakeholders to share knowledge and improve their understanding of the CIS system, they can identify solutions that will enable the system to respond more effectively to the climate information needs of smallholder farmers.

Workshops will facilitate interaction between stakeholders with the aim of building trust for further cooperation and collaboration. This trust is vital for any proposed changes to the system to be successful and sustainable in the long term. These workshops build on, but also contribute to, Stage 3 Stakeholder Empowerment for Engagement. At times, these workshops may be one and the same, as when mapping is used to build marginalized stakeholders' skills and knowledge (see Stage 3).

II. Key Steps

Step 1: Plan the Workshops

Building trust between stakeholders requires frequent and well-facilitated interactions. It often takes time and patience before stakeholders are able to collaboratively identify gaps and propose improvements in CIS system functionality. The process is therefore best facilitated as a series of workshops that support stakeholders to iteratively understand the system, identify blockages and gaps, cultivate a common vision for improvements, and develop action plans (see [milestones in participatory systems mapping](#) on page 37 in the Additional Guidance and Tools for this Stage). These workshops can take place in parallel with the empowerment process outlined in Stage 3 and may contribute to it.

The participatory workshops are most effective when they are planned flexibly as the process goes along. The workshops can start from a local level with CIS end users and culminate in a larger national or regional level CIS system mapping workshop that involves all key stakeholders. There may be workshops at other scales in between where necessary, such as at commune or departmental level, depending on the context. Plan the series of workshops by revisiting the outline work plan for Stage 4 that was drafted during Stage 2, finalizing it in light of any updates to the stakeholder analysis or engagement strategy from the Stage 3 empowerment activities. Ensure that there are sufficient translators at the workshop, so workshops are accessible to participants who speak local languages, and that materials are translated carefully, so as to prevent confusion or biases.

Involve the champions identified in Stage 1 in the workshop planning where possible. They may be able to review the list of participants, contribute to a background presentation, or help facilitate small group discussions. The more that permanent system actors are involved in the planning, the more ownership they will have over the process.

The guidance document *Planning Participatory CIS Systems Development Events* ([Annex 14](#)) includes a template for planning the overall series of workshops so that each workshop builds on the findings and lessons learned from the previous workshops. The guidance also includes a form to help plan each individual workshop in turn. This guidance includes five important elements to planning a participatory mapping workshop:

- A review of past experience and prevailing conditions in the CIS system
- The objectives for the workshop
- Identification of participants
- Preparation and facilitation responsibilities
- Development of workshop exercises

Work through the form well in advance of each workshop as it will help you to plan a strategic workshop that contributes to moving actors on a journey towards greater cooperation and collaboration. Consider what you have learned from past workshop evaluations as you decide on the approach and workshop plan.

To prepare for the workshop, refer to the *Focus Group Discussion Guide* ([Annex 15](#)) and to the Stage 2 Additional Guidance and Tools. You can adapt these to fit the objectives and context of the workshop. The Additional Guidance and Tools section in this Stage provides further tools that can be useful in preparing for the workshops. Ensure that all guides and tools are carefully crafted in local languages such that participants understand them, and questions are not biased.

Plan on at least two members of the facilitation team to run each workshop: one to facilitate and the other to take notes. The notes should capture relevant information that is not recorded on the system map. This could include information about the participants' farming systems, and qualitative information about the CIS, e.g. whether they trust the information, CIS quality and timeliness, how they use the CIS.

The facilitation team may find it useful to test the mapping methodology and practice note-taking skills in a training setting before beginning the first workshop.

Step 2: Conduct the Village Level CIS System Mapping Workshops

The steps needed to organize and run a participatory mapping workshop vary according to context, participants, objectives and other factors, but a general list of steps is provided here based on experience from the pilots in Niger and Senegal. These should be used alongside the guidance on how to facilitate the participatory mapping from Stage 2.

1. Engage with appropriate community leaders and contacts to confirm the meeting location and time, and to assist in selecting participants. The team may need to provide guidance to community leaders on the types of participants that should be invited; for example, including youth, or including some literate participants, or those that have participated in a previous CIS program.
2. Assemble participants: 2 groups of approximately 10 female and 10 male participants of diverse socioeconomic backgrounds, ethnic, religious backgrounds, if relevant. If the facilitation team is large enough, the male and female workshops can be held simultaneously. Otherwise they will need to be scheduled one after the other.
3. Set up the space for the group, including the flipcharts and mapping materials, note-taking area, and an area for participants to sit in a circle conducive to good focus group discussion and everyone to be able to see the flipcharts where the mapping will be done.
4. Ask participants' permission to record the session and take pictures. Advise them that one facilitation team member will be taking notes to capture the discussion.
5. Explain the nature, objectives and duration of the activity, take any questions and manage expectations carefully. Outline shared ground rules for the workshop and ask for feedback and consensus on the rules.
6. Start with the development of a *Seasonal Calendar* (see [Annex 16](#)) to prime participants to think about seasonal changes, key agricultural decision points, and the climate information that informs their decisions and actions. Ask participants about both the traditional signs that indicate the change of season, and any other sources from which they receive climate and weather information.
7. Guide the participants through the process of mapping and then analyzing the three components of the selected CIS system: information chain and actors, enabling environment, and supporting services (see Stage 2). Adjust the facilitation and mapping documentation to match with participants' experiences and education levels, for example, by using symbols rather than words.
8. If participants are willing and interested, the men and women's groups may present their maps to one another and discuss the similarities and differences to understand any incongruencies in access, uptake and use of information, and facilitate discussion on equitable solutions.

9. Inform participants of any potential next steps and further engagement that may be requested, such as their participation in any planned empowerment activities or future mapping workshops. Take any final comments and questions and thank participants for their time.
10. Conduct the workshop evaluation, keeping it short and simple, as participants have limited time. Examples are provided in [Annex 9](#), [Annex 10](#) and [Annex 17](#), and can be adapted as needed. Depending on the needs of the program and resources, including time and funding, the facilitation team may also want to conduct a pre-workshop evaluation to better understand and measure the impact of the workshop.

As soon as possible after the workshop has ended, review the workshop notes together (facilitator and note taker). Make corrections, fill in any gaps, and add any other useful information. Ensure that you have a photograph of the systems map and any other visuals produced. Transcribe and analyze the notes and, if needed, adapt the methodology for the next workshop.

The facilitation team may also want to transfer the information from the paper maps onto Kumu (see example in Stage 2, Figure 4 on page 19) or other system mapping software, which helps to analyze the maps and identify any facilitation or methodological issues, such as standardizing symbols or terminology across groups.

If mapping workshops are also to be held at intermediary levels such as commune or region, the team can adapt this process accordingly. For example, in Niger the team used participatory mapping during an empowerment workshop that was held with farmer representatives and other regional-level actors just before the national CIS mapping workshop. In Senegal, the team held mapping workshops at commune and regional levels before holding the national level workshop. These workshops enabled the team to improve their understanding of the system as they went along, and provided participants from village level the chance to expand their perspective of the system and gain practice expressing their views prior to engaging with national level stakeholders.

Outputs:

- Reports of each workshop, including CIS systems maps and photographic documentation and notes explaining the maps and documenting the discussions
- Workshop evaluations

Step 3: Conduct the Final CIS System Mapping Workshop

1. Follow Step 1 to plan the final CIS System Workshop, which should take place at the regional or national level, depending on the CIS boundaries and stakeholders identified during Stage 1 Framing the System. See [Annex 17](#) for an *Example of a National Workshop Agenda* from the Senegal pilot. Pay particular attention to participant selection, taking into account the strategy for engagement and [sustainability plan](#) from Stage 1 as well as representation of marginalized actors.
2. Communicate with selected participants to confirm the meeting location and time, purpose, and ensure their participation.
3. Set up the space for group work before the workshop starts, including the flipcharts, note-taking area, ideally with chairs in a circle conducive to good group discussion and so everyone is able to see the flipcharts where the mapping will be done.
4. Split participants into small groups before the workshop starts to ensure diverse representation of CIS actors (government, NGO, farmers, etc.) in each group. Assign a mapping facilitator and a note taker to each group.
5. At the start of the workshop, provide a short introduction to the work done thus far including any key findings; for example, differences between female and male access to, uptake and use of information, or differences the team has seen between villages with CIS interventions and those without.
6. Ask participants for permission to record the session and take pictures and notes to document the process.

7. Explain the objectives and duration of the activity, take any questions, and manage expectations carefully. Outline shared ground rules for the workshop and ask for feedback and consensus on the rules.
8. Break into pre-defined groups and take the participants through the participatory system mapping process, mapping the climate information chain and actors, the enabling environment and supporting services (see Stage 2 guidance on page 17). Adjust the facilitation and mapping process to match with participants' experiences and education levels. It is also possible to begin the mapping with a previously-done map as a starting point. For example, in the Senegal pilot, the regional-level map was used as a starting point for the national level mapping. Participants at the national workshop added to the regional map to reflect their perspectives. This saved time and allowed for a rich discussion among participants. Sharing village maps can also be useful for national level participants to visualize how farmers see the system. The group can analyze the differences between women and men's CIS maps, and national and village-level maps, to understand differences in access, uptake and use of information, and contribute to the formulation of collective equitable solutions.
9. Ask each group to record on the map and on flip charts the blockages and constraints that prevent the CIS system from performing effectively. Ask them also to record any opportunities or ideas for action to address the blockages and constraints.
10. Bring the participants together to share their key blockages and constraints and opportunities/ideas for action. Then take them through a process of Participatory Planning to move from consensus to coordinated action. This process will help stakeholders move from a set of common interests and a shared vision of what they want to achieve, to a coordinated action plan. The facilitator's role is to create the right conditions of collaboration for the stakeholders to adapt the CIS system in ways that are beneficial to the climate information end users.

The participatory planning activity should aim to:

- Help the actors move towards a shared vision following a “path of least resistance.” This means identifying and working on the easiest system improvements first rather than going straight to solve the toughest challenges. Some early wins can help motivate participants and strengthen their engagement.
- Help actors to understand how their actions will affect the rest of the system, and how to prioritize changes that work with the system rather than against it.
- Channel tensions and interests amongst actors into concrete strategies and action plans.
- Promote and reinforce the capacity of influential actors, information intermediaries and representatives of marginalized groups – stakeholders across all levels – to deliver change in the CIS system.
- Consider issues that arise within the enabling environment that could have a positive or negative impact on stakeholders' ability to move forward the changes.

The *Feasibility Assessment for Opportunities Tool* ([Annex 18](#)) provides questions that can help guide participants in assessing whether actions are feasible or not when creating the action plan.

11. Promote sustainability & collective solution development: Be clear on any potential next steps in the process and any required support for sustained engagement on this topic by asking participants to formulate and make plans to implement collective solutions to address gaps and blockages in the CIS system.
12. To accomplish this, you can encourage actors to form Interest Forums or Multi-Stakeholder Platforms or work with those that already exist. These could be groups of actors who collaborate or coordinate their activities and investments to change their own part of the CIS system. This could include Opportunity Groups (Stage 3) and other existing networks to advocate and promote changes in the system at various levels.
13. Record any agreed-upon Action Plan items (see [Annex 19](#), *Action Record Template*, which provides guidance for leading the group through identifying who can take responsibility for each action plan item).
14. Take any final comments and questions and thank participants for their time.

15. Conduct the workshop evaluation. See the examples of workshop evaluations in [Annex 9](#) and [Annex 10](#) that could be adapted. Use the participants' feedback from the evaluations to learn and improve the process, adapting the process based on their feedback.

As soon as possible after the workshop has ended, the facilitation team should meet to debrief and review the workshop evaluation. Check the documentation and notes for completeness, identify the lessons learned and document any changes required to improve the approach. As with the village level maps, the team can enter the systems maps into [Kumu](#) or other systems software and use that to help analyze the maps.

Learning can be documented in a final report for the program and any tools finalized accordingly. Share external reports, documentation and the Action Plan and commitments with stakeholders, particularly the champions, to support sustainable collaboration and enable the permanent actors to begin implementing their action plans.

Outputs:

- A report of the national level CIS mapping workshop including CIS systems maps and photographic documentation and the agreed action plan
- Workshop evaluations

III. Learning, Impact and Feedback

As in Stage 3, the main opportunity for learning and feedback in Stage 4 comes from the evaluations that are conducted at the end of each workshop. These evaluations give participants and facilitators time to reflect on whether the objectives were achieved, what was learned, and what could be improved for the next time.

Another opportunity is during internal debriefing meetings after the workshops. For each workshop to build on the last, it is important to review what did or did not work well and adapt the plan for the next workshop based on this information. Facilitators can also use the *Facilitator Feedback Template* in [Annex 11](#) introduced in Stage 2 to help them learn and improve their facilitation skills.

Facilitators can consider the following questions when debriefing. This review is best carried out as a debriefing session soon after a workshop, when facilitators have the events of the workshop fresh in their minds.

- What were the objectives of the previous workshops? What were the outcomes of the previous workshops?
- What went well in the workshop and should be built on?
- What didn't go as planned? What can we learn from this experience?
- Did anything surprising or unexpected happen? Is there anything that facilitators should specifically look out for in the next workshop relating to these surprises?

The Stage 4 participatory systems mapping is part of a temporary and catalytic process intended to create long-term impact. For this long-term impact to occur, facilitators need to help stakeholders take ownership over coordination activities and build their ability to organize, convene and facilitate multi-stakeholder learning and sharing meetings themselves. As the participatory system mapping process progresses, continue to look for opportunities to hand over some or all of the roles of the facilitation team to the CIS stakeholders themselves, particularly the champions, to support sustainability and to enable the continuation of the process after the departure of the facilitation team. See Stage 5 for further guidance on supporting the long-term impact and system change over time.

IV. Additional Guidance and Tools

In this section we provide additional guidance on:

- The roles of the facilitation team
- Milestones in participatory systems mapping

The Roles of the Facilitation Team

The success of the participatory CIS system mapping process depends enormously on the skills of the facilitators and their ability to help stakeholders along the process.

These skills involve creating a space for interaction between different actors, managing the energy of participants and any conflicts that arise between them, and strategically channeling the process towards its objectives. The *Facilitator Feedback Template* in [Annex 11](#) provides a form that the facilitation team can use to note feedback for facilitators on each of these four areas.



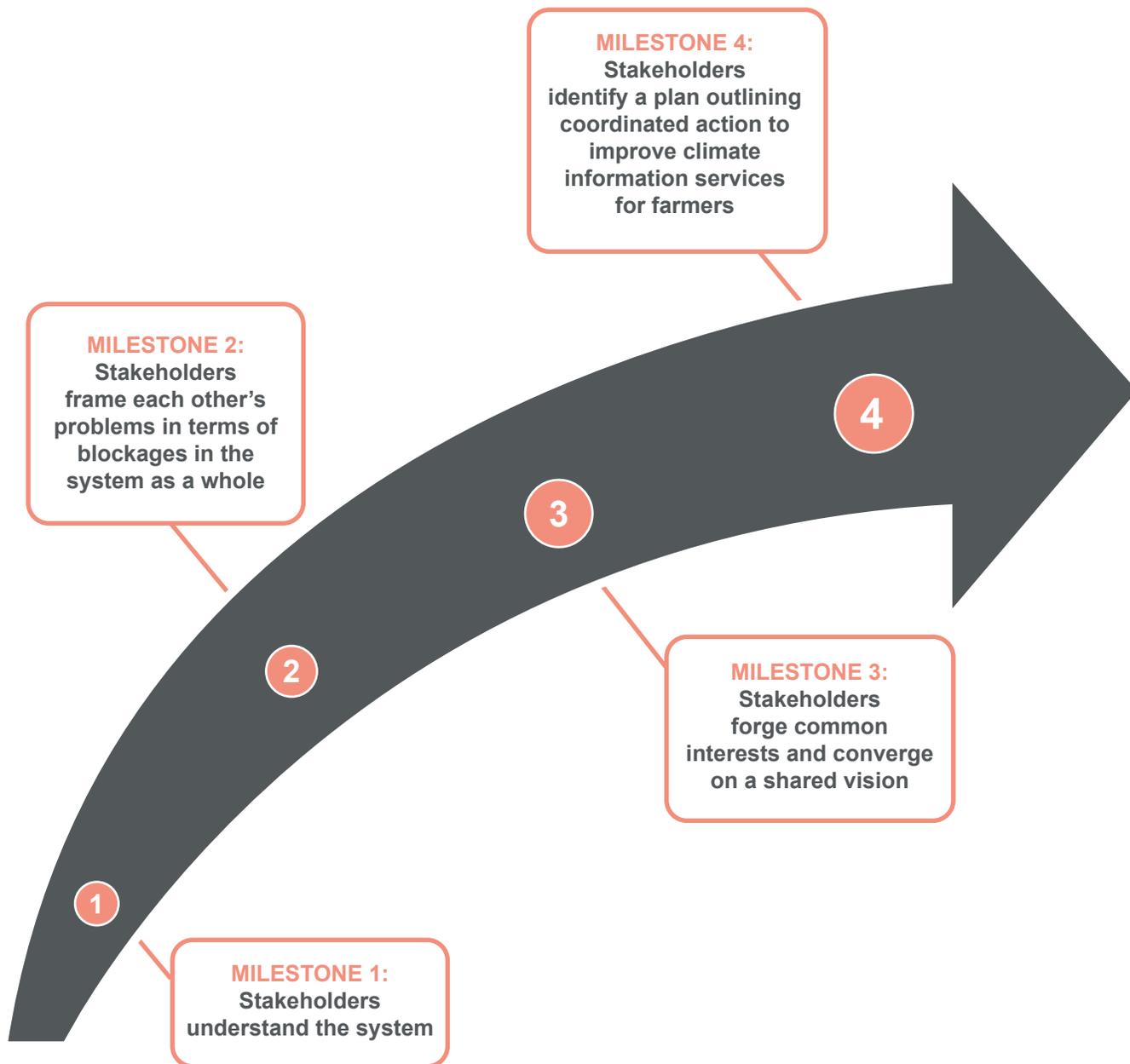
The following documents, from the Practical Action collection of PMSD training materials, can be used by the facilitation team and their supervisors or advisors to help facilitators strengthen their skills in order to play a critical role in driving a successful process. They are located under [Step 6 Participatory Market Mapping](#) of the PMSD Roadmap:⁷

- *Participatory Market Mapping Facilitator Guide* provides practical guidance on how to facilitate participatory market mapping.
- *Supplementary Guidance Note: Workshop Exercises* provides practical examples of tried and tested exercises to use during the workshops to increase participation and guide the process.

⁷ Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org/roadmap-steps.

Milestones in Participatory Systems Mapping

The milestones shown below can be helpful to consider as the facilitation team thinks through the changes that need to take place to move towards participatory, stakeholder-led improvements to the CIS system. These are not meant to be prescriptive or necessarily linear for every change to the system, but more as a guide to check on progress as the process advances.



MILESTONE 1 – Initially most stakeholders are unlikely to think of climate information services as a ‘system’ of many interconnected parts. They may have a narrow perspective of the particular roles and activities that they undertake relevant to CIS. The first significant milestone comes when diverse stakeholders have mapped out the system and have largely agreed about how it works and how different actors interact and relate with each other. The use of the systems map to create a participatory visualization of the CIS system is a fundamental exercise to achieve this first milestone.



MILESTONE 2 – The second significant milestone occurs when actors understand their own and other actors’ identified problems within the system, cease to assign blame, and see how these different blockages or gaps are interconnected and affect the system as a whole. At this stage, actors who are not directly involved in a blockage realize how they might nonetheless be affected by it.



MILESTONE 3 – As actors discuss issues within the system, they also start to share ideas about how to improve the system. This important milestone comes when actors begin to ‘crowd’ around key issues of common interest, realize that they cannot address them individually, and discuss cooperatively how to solve them together. This milestone coincides with a noticeable increase in transparency and trust-building among actors as they see how their different perspectives and knowledge contribute towards the common efforts to address the problems.



MILESTONE 4 – System actors recognize their interrelatedness and dependencies and identify many possible systemic improvements. Actors start to expand from their personal issues and recognize priorities for system change. Action planning based on these priorities is then possible. This milestone coincides with the development of a shared action plan outlining coordinated actions needed by different actors to improve the CIS system for end users. This action plan would likely be the culminating activity in the final workshop, building on the lessons learned from the previous workshops. The *Feasibility Assessment for Opportunities Tool* ([Annex 18](#)) can be used to help participants with their action plans.



STAGE 5

LEARNING, FEEDBACK AND IMPACT

From consensus to delivering change and supporting the process long-term

I. Summary of Key Information

Objective	To track and promote changes in relationships between actors and in the CIS system's functioning that are brought about as a result of engaging in this process. To identify the actions and approaches that support stakeholders to bring about change, and to change course where approaches are not successful.
Purpose	To provide a framework and tools for ongoing support for learning and adaptation to accompany the changes in the CIS system.
Time	Learning, Feedback and Impact components have been included in each of the guidelines for Stages 1-4. This Stage 5 guidance focuses on the longer-term process of change in the CIS system after Stage 4 is completed; the timing depends on the context but ideally may last one or more agricultural seasons so that changes have time to be applied.
Tools	Annex 20 : Relationship Matrix for Participatory Monitoring Annex 21 : Four Communication Funding Models
Process	The process for Stage 5 will vary depending on the way in which stakeholders have decided to develop and implement their action plans. General guidance and tools are provided.
Outputs	The output can take the form of a report, or a series of periodic reports, that synthesize the changes that occurred and the conditions that facilitated or hindered those changes. The report could draw upon evaluations, reflection workshops, facilitators' notes/findings, participant feedback, and the completion of tools mentioned above.

Aim

Stage 5 provides guidance and tools for ongoing support to accompany the changes in the CIS system. It is designed to help the facilitation team leverage the energy, interests and resources of CIS actors to take ownership not only of their action plans, but of the change process itself. It focuses on the process of tracking changes in relationships between actors and in the functioning of the CIS system in order to identify the approaches that support stakeholders to bring about change, and to change course where approaches are not successful.

II. Key Steps

The facilitation team will work on Learning, Feedback and Impact during the entire length of the CIS system development program, from Stage 1 onwards. This stage, however, looks at these elements as they relate to the change process after the workshops in Stage 4.

It is not possible to predefine key steps for Stage 5 as the process will differ depending on how stakeholders have chosen to develop and implement their action plans as well as the context and opportunities to change the CIS system. Instead of Key Steps, this Stage 5 provides general guidance and tools to help the team facilitate Learning, Feedback and Impact during the longer-term process of change in the CIS system, after Stage 4 is completed. This long-term support to implementing the changes in the CIS system is key to ensuring that the momentum created during the participatory workshops continues and turns into real action and impact.

Ideally, Stage 5 will last several agricultural seasons – long enough to apply changes within the CIS system and improve upon the changes over several cycles. The long-term learning and feedback stage can be embedded into a longer program that includes design of a CIS system. Alternatively, the approach could be used to evaluate an existing CIS system. In both cases, it would inform a longer-term program that would continue after the participatory mapping is completed. In cases where the approach is not used as part of a longer-term program or process, the facilitation team must create a detailed roadmap to continue Stage 5 in the Sustainability Plan. This should include potential funding mechanisms, as well as ways to engage the permanent actors who can continue the change process when the facilitation team is no longer present.

Due to the limited time for pilot activities in CISRI, the teams had little opportunity to track and accompany the change processes in Niger and Senegal beyond the Stage 4 final workshop. Thus, the guidance and tools presented in this Stage draw from some of CISRI's learnings, as well as Practical Action's experience with PSMD to develop agricultural market systems which benefit smallholder producers.

These activities may involve regular check-ins with champions and other key stakeholders, helping actors identify funding to support action plan items, facilitating Opportunity Group exchanges, or other activities as needed. These activities can be documented in a report or series of reports until the end of Stage 5. The guidance in the following section provides ideas to promote and document the learning during this process.

Outputs:

- A report or series of periodic reports that synthesize the changes that occurred in the CIS system and the conditions that facilitated or hindered those changes. This report could draw upon evaluations, reflection workshops, facilitators' notes/findings, participant feedback, and the data collected using the various tools and templates.

III. Additional Guidance and Tools

The aim during Stage 5 is to unleash the potential of actors within the system to make transformative changes, such as introducing new information, practices and technologies across the system to benefit the targeted CIS end users. Changes in one small area can act as a multiplier effect across the system. This requires a ‘learning-by-doing’ approach, and a continuous process for monitoring, reflection, learning, planning and feedback.

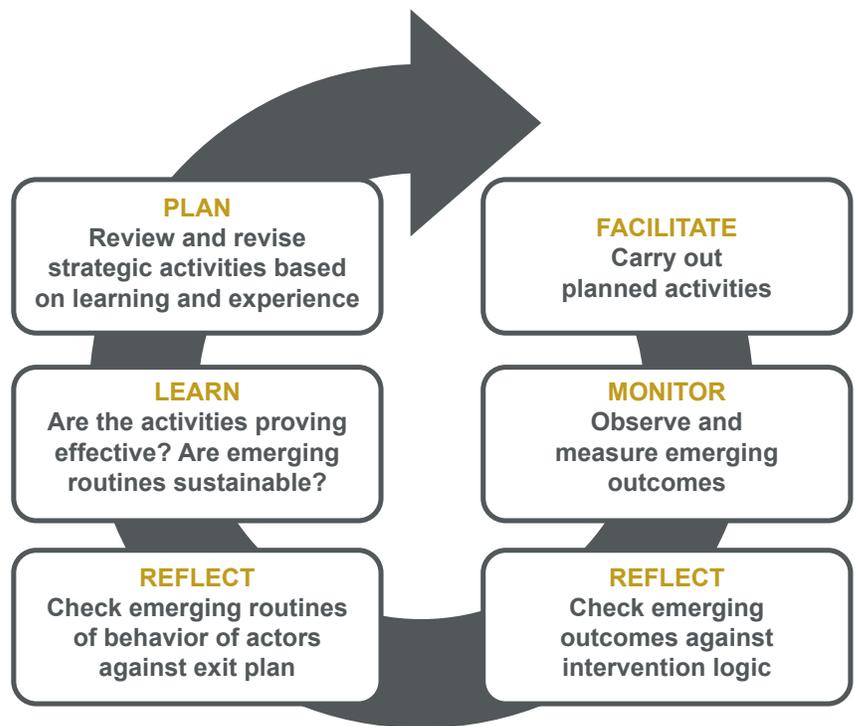
This section provides additional **Guidance and Tools** in three complementary areas of focus:

- **Facilitating change:** how to engage in systems change, what are key change agents, and what are the leverage points for change?
- **Active feedback:** some of the ideas that result from the system mapping process may not work in practice while others will; therefore, it will be vital to learn along the way and support an adaptive process.
- **Communicating lessons learned:** beyond mapping the CIS system in the targeted geography and creating change within that system, this stage can also be used to share lessons learned from the process that could be applicable to other localities.

Facilitating Change

To maximize change in the CIS system, we recommend that the facilitation team:

- Consider the key CIS stakeholders as **active members of the facilitation team**, working together towards the creation of solutions.
- Adopt a **‘learning-by-doing’** approach, actively investing time and resources into monitoring and reflection throughout the CIS development and system change process. Successful facilitation is an iterative process, involving experimentation, monitoring outcomes, using informal observations as well as formalized indicators where possible, and building on successes and learning from failures (see graphic).



- **Value small intangible and tangible outcomes to build momentum for greater change.** Facilitating the development of any system change is a process that takes time – often longer than stakeholders expect or desire. Actors need to feel confident that they are able to manage the potential risks before they change their behavior. The *Feasibility Assessment for Opportunities Tool* ([Annex 15](#)) introduced in Stage 4 can help actors assess the risks and feasibility of their proposed actions to improve the system. Facilitators need to help actors value and celebrate any benefits that arise from them cooperating, even when the benefits seem to be small. By doing so, actors will begin to appreciate the benefits of such engagements and start to catalyze further changes that contribute to more tangible outcomes. The *Tracking Achievements Template* ([Annex 8](#)) can also help with this.

- **Use participatory monitoring**, involving permanent CIS stakeholders, as a catalyzer for relationship change (see [active feedback](#) below).
- **Track changes in your effectiveness** as facilitators and adapt your facilitation during the process using the *Facilitator Feedback Template* ([Annex 11](#)).

The *Facilitating Change Facilitator Guide* is located under [Step 8 Facilitating Change](#) of the PMSD Roadmap and provides guidance on monitoring the effectiveness of participatory activities at delivering changes to the system, and how the target groups are benefitting from the changes.⁸

Active Feedback

Active Feedback is what characterizes the recommended learning-by-doing approach to facilitating change. It covers the steps of monitoring, reflection, learning, and planning for the next cycle of facilitation.

Key recommendations for Active Feedback include:

In Monitoring:

- **It is valuable to monitor changes in the relationships between the permanent actors in the system.** Are there signs of the actors continuing to engage with each other after you wind down your facilitation role? Are actors starting to take actions based on their plans? Facilitators can use the *Relationship Matrix for Participatory Monitoring* in [Annex 20](#) to track changing relationships among actors. The team should emphasize capturing progress at regular intervals throughout the process of CIS development and system change, not only during the final close-up and evaluation phase of the program.
- **Engaging the permanent actors themselves in participatory monitoring of changes** in the CIS system can be a useful exercise around which to facilitate dialogue and collaboration with each other. Interest Forums, Multi-stakeholder platforms, and Opportunity Groups (see Stage 3) are entities that can carry out participatory monitoring. They bring together small numbers of actors who are working to address specific issues they face. It can be useful from time to time at group meetings for the actors to assess the changes in their relationships with other CIS actors and the tangible actions they are taking in coordination with each other. As in the previous point, the *Relationship Matrix for Participatory Monitoring* ([Annex 20](#)) can support this process, and has been found, when effectively facilitated, to encourage a process of reflection in the actors that can catalyze changes in attitudes.
- **Permanent actors can come together to review the CIS system map or sections of it, preferably on a regular basis;** for example, each year after the agricultural season, or when stakeholders meet to discuss the seasonal forecast at the beginning of the season. This provides an opportunity to note changes in the system's functionality, in the timeliness and usefulness of the climate information, and in farmers' ability to access and act on the information. Including farmers in these meetings provides an opportunity for them to give feedback to CIS providers on their perceptions and use of the CIS information. Coming back to the CIS map over time helps actors to see whether the problems they identified previously have improved and whether the information flows better.
- **Be patient; outcomes take time to emerge.** It is important to manage expectations, especially as changes in the CIS system may not lead to systemic improvements until the system has gone through several cycles, allowing time for the change to percolate through the system. Additionally, it is useful to note that the utility of a CIS system, as well as the pathways through which the information flows, may change depending on the quality of the rainy season. For example, a CIS system may function differently when farmers are trying to avoid loss due to a drought, as opposed to when farmers are trying to take advantage of opportunities due to a season with above average rainfall.

⁸ Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org/roadmap-steps.

- **Monitor for unexpected changes that could happen in the system.** Be aware that systems are not static, and things can happen to change the dynamics in the system during the period in which you are going through these Stages. For example, a new program may start in the targeted zone, a charismatic person in the system may leave or appear, a new type of technology may be introduced, or changes in government policy may take effect. It is important to remain aware and flexible when such changes occur and adapt as needed.

In Reflecting:

- **Frequently review the intervention logic against experiences in practice.** This means that the team needs to monitor the outcomes, not just the activities, to see whether what you hoped would happen really happened. When the CIS stakeholders begin to implement their action plan, check whether the action taken leads to the desired result. If the point of improving the system is to enable end users to access and use climate information, then checking to make sure that the improvement that was made – for example, providing a forecast in the local language – did indeed make it easier for the farmer to access and use the information is important.
- **Always keep sustainability after exit in mind.** A robust exit strategy is important to have in place from the outset, as described in Stage 1. The Sustainability Plan that is drafted by the end of Stage 2 needs to be reviewed and updated throughout the process including throughout Stage 5. Funding for the facilitation team will not be in place long-term; therefore, it is important to determine how the systemic change process and the subsequent benefits for farmers will continue once external support ends.

In Learning:

- **Support an environment where the facilitation team and permanent actors feel that they can discuss and learn from mistakes and failure without judgement.** These 5 Stages need to be facilitated by an open and honest team that values all inputs and supports even those actors who operate on the periphery. Permanent actors from the CIS system in question must be nurtured and supported as they will be the ones to remain when the funding for the facilitation team has ended.

In Planning:

- **Ask what you can do differently next time to make the activities more effective.** Keep an open mind and be prepared to adapt the process next time. Challenge yourselves to be open to other ways that the desired change could be facilitated.

Communicating Lessons Learned

It is important to build on the communications plan developed during Stage 1 to develop a comprehensive communications strategy for Stage 5. When developing this strategy, consider carefully who you need to reach in each of the following two categories:

- **Stakeholders involved in CIS system mapping:** it is important to share the results of the participatory mapping workshops with the stakeholders who have been involved. In order to effectively communicate with these actors, the team must know the audience and what types of communication methods they prefer. For example, in the Niger and Senegal pilots, the facilitation team created a colorful bulletin with photos and interviews to share with interested stakeholders. This validated people's participation and provided visual reminders of the mapping exercises. Use the stakeholder analysis and the mapping itself to learn how CIS actors currently interact with each other and what communication methods they prefer. The individual relationships that you have built are also valuable knowledge networks that you can draw on to share the learning across the system.

- **Other actors for advocacy and influence:** another part of the Stage 5 communication plan could include actions to communicate with other actors who may not have been directly involved but could benefit from knowing about the results. This could include policy-makers, funders, private sector actors, or others who are interested in CIS, either national or international actors. To effectively communicate with these actors, the team needs to learn what kind of information and knowledge is useful to them and in what format. These actors may require communication methods more aligned with advocacy, such as policy briefs, conference presentations or webinars to share results. Media could be another way to reach a wider audience with the results. You may also be able to leverage the relationships that you have built with CIS stakeholders to reach some of these actors.

When planning your budget from the beginning, it is helpful to consider the costs of your communication strategy, including costs to cover this second category of communication for advocacy and influence purposes.

For more information about helping stakeholders identify different types of funding for the improvements that they want to make to the CIS system, particularly for funding communication efforts, guidance can be found in [Annex 21 Four Communication Funding Models](#), which is adapted from the PMSD Roadmap.⁹

⁹ Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org/roadmap-steps.

CONCLUSION

By the end of this methodology, the facilitators will have completed five stages. The stages may not have been implemented in a linear, consecutive fashion, but, regardless of the order, will have contained the following key milestones:

Stage 1: Framing the CIS System. The facilitators will have decided which CIS to focus on and at what geographical scale and begun the process of stakeholder engagement. Activities included documenting information on existing CIS, beginning stakeholder analysis and identifying potential Champions - those actors who are willing to engage with the facilitation team to steer the system development process and carry outcomes forward in the longer term.

Stage 2: Preliminary System Mapping and Analysis. Facilitators will have used learning from Stage 1 to create a preliminary CIS system map and undertake a more in-depth analysis of the CIS system to identify which stakeholders to engage with and to finalize work plans for Stages 3 and 4.

Stage 3: Stakeholders' Empowerment for Engagement. Facilitators will have identified actors who are marginalized within the system and built their skills and confidence to express their perspectives, needs and experiences in relation to CIS. Through the process, they will have enhanced the capacity of all stakeholders to contribute to the design and delivery of CIS systems that effectively deliver climate information to end-users.

Stage 4: Participatory Systems Mapping and Collective Solutions. Facilitators will have run a series of in-country multi-stakeholder CIS system mapping workshops that engaged all the stakeholders in a collective process to understand the functioning of the CIS system and to agree on how to change it for the better. This process helped to build relationships and increase trust between CIS actors.

Stage 5: Learning, Feedback and Impact. Facilitators will have supported the longer-term process to deliver change, during which CIS actors took steps, individually or collectively, to improve the functioning of the targeted CIS system. They will have tracked changes in the relationships between actors and in the functioning of the CIS system, identifying which approaches support stakeholders to bring about change, and adapting where they are not successful.

The point at which facilitators conclude their involvement in the **Participatory CIS System Development** will also differ depending on the needs and context. A successful process is one in which participants have gained a greater understanding of one another's perspectives of the CIS system and the factors that affect the functioning and efficiency of CIS for different users. Facilitators will have engaged with key decision makers at multiple points along the CIS communication chain and developed a joint action plan that outlines the needs and responsibilities of all actors. This plan, the new relationships that were forged in developing it, and the active engagement of Champions to drive the change process going forward, are the foundation for improving the delivery and use of climate information, with the aim of enhancing agricultural livelihoods for smallholder farmers and/or strengthening resilience to climate risks.

FURTHER READING & RESOURCES

The **Participatory CIS System Development** methodology was developed and piloted with USAID funding under the Climate Information Services Research Initiative (CISRI), a component of the [Learning Agenda on Climate Services for Sub-Saharan Africa](#).¹⁰ Additional learning from the pilots in Niger and Senegal, as well as other program materials from CISRI and the Learning Agenda, are available under the Resources page on the Learning Agenda website and via the following links:

- [Climate Information for Those Who Need It Most: Contributions of a Participatory Systems Mapping Approach in Niger](#)
- [Participatory Climate Information Services Systems Mapping in Senegal](#)
- [CISRI Bulletin: Mapping Climate Information Services in Senegal](#)
- [CISRI Bulletin: Mapping Climate Information Services in Niger \(in French\)](#)

Practical Action's approach to Participatory Market Systems Development informed this methodology. See [PMSD Roadmap](#) for more information.¹¹

We assume that this guidance will be used by experienced facilitators and fully intend for it to allow space for iteration, creative approaches and context-specific adaptations. If you would like to share your experiences or have any specific questions for the authors, please contact us at:

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¹⁰ Climatelinks. (2019). *Learning Agenda for Climate Services in Sub-Saharan Africa*. Retrieved from: www.climatelinks.org/projects/learningagendaonclimateservices.

¹¹ Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org/roadmap-steps.

STAGE 1 TOOLS

Annex 1: Literature Review

To access an editable version of this tool, go to www.climate-links.org/resources/PCISSD-guide.

Literature Review

	Publication Title	Date	Author	Web address	File type	Short Description	Key Takeaway points
1							
2							
3							
4							
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6							
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Annex 2: Key Informant Interview Notes

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

KEY INFORMANT INTERVIEW NOTES

Stakeholder interviewed: [name, organization]

Date:

Location:

Others present at meeting:

Prior to the interview, note any background information on Stakeholder (e.g. relationships or connections with other actors within the system, any information of interest re. CIS). Can note here or on Key Actor Profile ([Annex 6](#)).

Here a specific questionnaire can be developed by the Facilitation Team. Include at least the following:

Thank the stakeholder for his/her time and explain the participatory CIS system development program that you are working on, and why you have asked for the meeting.

1. What is your role within Climate Information Services in [geographical location]?
2. What are some of the successful aspects of the CIS system in [geographical location] generally, and/or which CIS activities have been going well?
3. What are some of the key challenges that you see with the CIS system in [geographical location] generally, and/or with your particular role?
4. What solutions or recommendations would you suggest to improve the CIS system in [geographical location]?
5. Are there other key CIS stakeholders that you recommend we get in touch with for us to better understand the system?

Annex 3: Stakeholder Analysis

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Tab 1

Climate Information Services - Key Stakeholders						
	Institution	Type of Institution (government, civil society, NGO, research institution, etc.)	Focal Person	Champion Y / N	Contact Information	Meeting held (date, notes)
1						
2						
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Tab 2

Factors in CIS Environment - Enabling or Disabling		
	Enabling / Disabling factor	Details/Comments
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Annex 3: Stakeholder Analysis (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Tab 3

Supporting Service Providers				
	Name of service provider	Service provided/to whom	Contact Info	Notes
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Tab 4

Challenges & Blockages Identified in CIS System Mapping			
*	Challenge/Blockage Description	Actors involved	Solutions / Possible actions (detail here, link to Opportunities tab if relevant)
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* Can Prioritize

Tab 5

Opportunities & Solutions Identified in CIS System Mapping			
*	Opportunities/solutions description	Actors involved	Options to harness these/connection to Action Plan if relevant
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* Can Prioritize

Annex 4: Climate Information Services Selection Criteria

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

CLIMATE INFORMATION SERVICES SELECTION CRITERIA TOOLS

This note provides guidance for framing the CIS system(s) to be mapped during Stage 1. The facilitation team should revisit these questions and selection criteria throughout Stage 1 to ensure that their final decisions, while ultimately subjective, come after evidence-based discussion and deliberation. The guidance is presented in five sections:

- **Types of Climate Information Services**
- **Identifying Farming Systems**
- **Selection Criteria**
- **The Decision-Making Process**
- **Climate Information Needs of Other Actors in the Agricultural System**

Types of Climate Information Services

When deciding which climate information service(s) to map, the team needs to consider the different CIS that exist currently and which of these services have the greatest potential impact. For example, there may be a greater opportunity to enhance the performance of one CIS system compared to another, or one service may have the potential to deliver greater benefits to the targeted end user than another.

Possible types of CIS include:

- Seasonal climate forecasts
- Daily weather information (forecasts for 24 hours to 3-5 days)
- Regular monitoring bulletins (10 day agro-meteorological bulletins)
- Extreme climate/weather event warnings (storms, winds, temperature, floods)
- Traditional seasonal forecasts and local/indigenous indicators

To decide which CIS to focus on, the facilitation team can explore the following questions:

- What types of CIS are currently available and who uses them?
- What potential improvements are possible in a short, medium or long term for each of these types of CIS?
- What improvements or changes to the CIS are already being planned?
- What CIS are already available that are not being used?

Note that the questions above are focused on the existing supply of CIS, but the aim of the selection criteria below is to assist the facilitation team in considering the demand of users. Additionally, although there is a focus on the supply of CIS at the beginning of the methodology, the mapping workshops and other engagement with users focuses more heavily on the demand of users.

Identifying Farming Systems

When deciding which climate information service(s) to focus on, the team should consider the farming systems practiced in the target area and whether there is potential for use of CIS to impact productivity, risk reduction or resilience within those farming systems.

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

At the national level, the team can consult with ministries of agriculture, local agricultural research institutes and extension service providers to identify the crops and farming systems that they would prioritize for using various CIS. Engaging with the stakeholders within the CIS system from the beginning will help orient the decision-making towards realistic, actionable choices on where to focus for the greatest impact.

The facilitation team can also consult global and regional data sets and online GIS mapping tools to explore the farming systems in the target area. These include:

- FAO [Global spatial database](#) of agricultural land statistics
- FAO [State of the land and water resources](#)
- FAO [Geonetwork](#) of global spatial data
- For information on climate change impacts on agricultural systems based on global climate models, use the [IPCC AR5 Scenarios database](#)
- For information about Climate Information Services globally, see [Global Framework for Climate Services](#) and the [World Meteorological Organization](#)

Selection Criteria

When framing the CIS system to be mapped, defining the focus crop or mix of crops is important because this is what determines the farmers' needs for climate information. We use the term ***cropping typology*** below to refer to this crop focus. In some cases you may decide to focus on improving a CIS for one crop because of the high potential for impact. In other cases, you may decide to focus on a broader farming system so that climate information needs for livestock and other farm activities are considered.

Six potential criteria are presented below that can be used to compare the benefits of CIS on different crop typologies and help the facilitation team define the purpose of using the CIS system mapping methodology. Table 1 provides a template to weight, score and rank the cropping typologies on each one of these criteria to help inform the team's decision.

Food production improvement

This criterion is concerned with the potential of climate information to improve the productive performance of the potential cropping typology. The team should consider the following questions when ranking food production improvement:

- **Importance of the cropping typology for subsistence food supply:** Who consumes the product? How important is it for food security? What is its role in drought years? Is there likely to be significant food insecurity risk if this crop typology fails due to unfavorable weather/climate conditions?
- **Dependence:** How dependent are local producers on this cropping typology for their livelihoods, resilience and food security?
- **Potential for improvement:** Is production likely to be improved with the timely* provision of seasonal or daily climate information?

* The ability to provide timely CIS is not part of the selection criterion at this stage.

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Nutritional security

This criterion is concerned with the importance of the cropping typology for nutritional security in average and drought-prone years. Consider the following issues related to nutritional security:

- **Importance for nutritional supply to local population:** Who consumes the product? Is the cropping typology providing key nutrients to specific groups? How important is it for overall nutritional security? What is its role in drought years?
- **Contribution to health of local population:** Are there significant possibilities for disease if this cropping typology fails? Is this specific to particular vulnerable groups, such as children, pregnant or lactating women, or the elderly?

Economic opportunity

This criterion is concerned with the cropping typology's economic performance both currently and how it is expected to evolve in the future. As part of the economic opportunity analysis, consider the following issues:

- **Demand from existing end markets:** Is there an unmet demand for the product? Is the demand for the product robust and is it likely to grow in the next 10 years?
- **Potential increase in income and wealth:** Are there significant opportunities to increase incomes and profit among smallholders by increasing production and supply of the products from this cropping typology?
- **Competitiveness:** How competitive is the crop typology compared to other typologies that feed into regional, national and international markets?

Impact on poverty

This criterion is concerned with the inclusiveness and equitability of the cropping system: whether more reliable and sustainable production stemming from access to and use of CIS is likely to lead to poverty reduction. The team may consider these issues:

- **Involvement of the poor:** What are the estimated current numbers of poor people deriving incomes from the cropping system? What kind of functions are they undertaking? What are the returns from their efforts and investments?
- **Income gains:** What are the realistically possible gains to the incomes of the poor of improvements in the production system from the supply of climate information?
- **Share of the value:** How is the value distributed across the production system? Are there realistic opportunities for poor actors to increase the value that they keep by increasing their productivity through access to CIS?
- **New entry:** If the production improves, is it likely that it will create new opportunities for the involvement of the poor in employment or by integrating greater numbers of small-scale producers and enterprises?

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Gender equity and social inclusion

To take into account gender equity and inclusion of socially marginalized groups in the cropping typology, the team should disaggregate the questions in the other 5 criteria. By doing so, the team can explore how improvements in the CIS system may affect women and other marginalized groups and have an impact on social inclusion. To look more deeply at how some CIS systems may be more suited to support transformative change in political, social and cultural systems that contribute to social exclusion, consider the following question as a separate criterion:

- **Promotion of social transformation:** Is it possible that improvements in the production system as a result of access to the CIS will change the attitudes and relationships of members of society towards socially excluded groups and promote political, social and cultural equity and empowerment?

Environmental sustainability

This criterion is concerned with the impact of the cropping typology on environmental sustainability. The team may consider the following questions:

- **Natural resource use efficiencies:** Will improved access to the CIS make the cropping typology more efficient and better able to utilize scarce local resources such as water and land?
- **Environmental changes:** Could land use or other natural resource use or cropping practices result from improved access to climate information? Would these changes have a positive or negative impact on the environment?

The Decision-Making Process

Deciding which cropping typologies to focus on combines subjective judgement with iterative investigation. Subjective elements in this decision-making process include:

- **Different issues to consider under each criterion:** For some criterion, there may be objectively quantifiable indicators available and practical for you to use. For many though, it is not possible to objectively quantify them, and instead you will have to use qualitative information and subjective perspectives to discuss them.
- **Weighting or prioritizing issues under each criterion:** How you value some issues over others is a matter of subjective choice.

Although the final decision is a subjective one, you can ensure that it is well-informed and evidence-based by combining:

- Information collected from different sources
- Discussion and deliberation in consultation with a wide group of informants
- The weighting, scoring and ranking tool (see Table 1 below)

Furthermore, it becomes easier to manage the process when you take an *iterative* approach, increasing in focus as you progress to reach the decision.

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

The weighting, scoring and ranking tool can help make sense of the different criteria to consider, but don't make your final decision solely on the output of the ranking exercise. A final discussion should take place before the decision is made. Although it is not always possible, seek to make your decision by consensus. This will help to get the initial buy-in from the facilitation team and key informants or champions.

Climate Information Needs of Other Actors in the Agricultural System

These guidelines have been developed with smallholder farmers as the target end users of improved CIS, with their needs being the focus of this participatory process to improve the CIS system. However, certain programs may instead focus on developing or improving CIS to meet the needs of other actors in the agricultural system, such as seed producers, agro-dealers or extension agents. The selection criteria above can be adapted when targeting these other actors. In addition, Table 2 below provides an example of another tool to examine different actors' needs relating to CIS. It includes space to document different CIS users, the climate information they need, and what incentives they may have for engaging to improve the CIS system. This information can be helpful when deciding with whom to work, and how to engage these different end users.

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Table 1: Weighting, scoring and ranking template

Below is an example of a weighting, scoring and ranking exercise (illustrative only).

You may find it useful to score the different farming typologies based upon their potential impact across each of the different criteria identified. Adding the scores together can give you an idea how farming typologies compare with each other on aggregate. This aggregate score can be used to rank (prioritize) the farming typologies according to their potential impact across all the criteria. You can weight the criteria differently in order to put special emphasis on a criterion you feel is particularly important.

More detailed instructions for using the tool are provided below.

Criteria	Weighting for each criteria		Rain fed typologies											
	(a)	Millet and Sorghum		Sorghum and Shea		Maize and livestock		Peanuts and Sorghum		Millet, Sorghum and Vegetables				
		Rating (b)	Score (a*b)	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	
Potential impact of seasonal climate information	1.5	4	6	4	6	2	3	4	6	4	6	2	3	
Potential impact of daily weather information	1.5	4	6	3	4.5	5	7.5	3	4.5	4	6	4	6	
Food production improvement	2	3	6	3	6	4	8	1	2	3	6	3	6	
Nutritional security	2	4	8	1	2	1	2	3	6	4	8	4	8	
Economic opportunity	1	2	4	4	8	4	8	3	6	2	4	2	4	
Potential impact on poverty	1	2	2	4	4	4	4	3	3	2	2	2	2	
Potential impact on women's empowerment	1	2	2	3	3	4	4	2	2	4	4	4	4	
Environmental sustainability	1	2	2	2	2	3	3	2	2	4	4	4	4	
Total weighted score			36		35.5		39.5		31.5		37		37	
Rank (by order of total weighted score)		3		4		1		5		2			2	

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climateinfo.org/resources/PCISSD-guide.

How to use the template

1. **Draw the table:** Use your best judgement to decide whether to draw the table on a large piece of paper or to use Excel. In both cases, the table must be easily visible to everyone. Use two columns for each farming typology to be assessed and one row for each of the criteria you have identified. Insert all the relevant labels and headings.
2. **Assign a weight to each criteria:** Do you consider that all the criteria are equally important when comparing different farming typologies? Do you want to emphasize some criteria more than others? Assign a number (weight) to each criteria according to the relative emphasis you wish to place on it. In the example above, the criteria were assigned weights of 1, 1.5, or 2. Therefore, when the team assesses which farming typology to target, they will give more emphasis to the potential impact of the farming typology on nutritional security (weight=2) than on poverty (weight=1). See below for more on how the weighting is used.
3. **Rate the criteria for each farming typology:** The team can decide the order in which to assign ratings: you can either work across one row at a time to rate all of the farming typologies for a given criteria, or you can work down the columns to rate all the criteria for a given farming typology. The aim is to assign a number (rating) based upon the potential impact each of the farming typologies can have on each criteria identified. In the above example, a rating on a scale of 1 to 5 was used (5 = very high, 4 = high; 3 = medium; 2 = low ; 1 = very low).
4. **Calculate the score for each farming typology:** Work down the column for each farming typology in turn. Calculate the scores for each criteria by multiplying the rating for each criteria (b) by the weighting for that criteria (a). Add up the total of the (weighted) scores for that farming typology and record this at the bottom of the column (in the total weighted score row).
5. **Rank the farming typologies:** The farming typology with the highest total weighted score is ranked #1; the second highest total score is ranked #2; and so on.

The exercise is likely to be most useful when a team is presented with the question about where to prioritize its efforts to improve a CIS system. This tool is less useful in those cases in which the geographies, target CIS end users, and farming systems of interest are already defined (such as in a grant or contract, or by the priorities of a government initiative).

To successfully complete this tool, be sure to include in your conversations those people who are very knowledgeable about farming systems and the local socio-economic context. Remember this is a subjective exercise; don't spend a lot of time agonizing about absolute weightings or ratings. It is useful to record the key points discussed and the reasons for selecting each weighting and rating, so that you can revisit them at any time and remind yourself what they were.

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climateinfo.org/resources/PCISSD-guide.

Table 2: Example – Tool to examine user needs for CIS in the agricultural sector

USERS AT DIFFERENT LEVELS			
Last mile	Sub-national	National	Regional
<ul style="list-style-type: none"> Pastoralists, farmers, farmers clubs/ associations, cooperatives, fisher folk, fisherman forums 	<ul style="list-style-type: none"> Department of Agriculture, Agrometeorological field units, Agricultural universities Farming institutes and training centres Emergency planners Extension services NGOs and civil society groups Media and telecommunications services 	<ul style="list-style-type: none"> Ministries of Agriculture, Food Security and Rural Development Extension services Agricultural universities NGOs Seed distributors Fertilizer industry Risk insurance companies 	<ul style="list-style-type: none"> Financial institutions, donors and research institutes e.g. World Bank, AfDB, DFID, UNDP, CGIAR, CCAFS, IFAD, IFPRI, USAID Regional NGOs Media and telecommunications services
INFORMATION REQUIRED BY USERS AT DIFFERENT LEVELS			
Last mile	Sub-national	National	Regional
<p>Location specific data including:</p> <ul style="list-style-type: none"> Real time weather information Temperature outlook (weekly, sub-seasonal and seasonal) Bi-weekly/weekly agro advisories on key crops, livestock and fisheries Potential impacts of short- to medium-term climate change on crops/ livestock/ fisheries/ management practices Sea conditions including wind speed and direction and significant weather patterns like rain, poor visibility and storms Likelihood, timing and potential impacts of severe weather events Early warning of drought conditions to reduce moisture stress 	<p>Local-level data including:</p> <ul style="list-style-type: none"> Seasonal climate predictions including seamless forecasts on rainfall, temperature, wind speed and cloud cover Early warning of extreme events such as hurricanes, floods, tropical cyclones, tornadoes, drought, heat and waves, winter storms, ice storms etc. and likely social & economic impacts Anticipated wet and dry spells, temperature extremes, rainfall distribution Onset and withdrawal of monsoon rainfall Pest and disease forecasting Forecasting of occurrence of cyclone with wind speed, quantum of rainfall, time and location of landfall including tracking of cyclonic path 	<ul style="list-style-type: none"> Wet season status, departure of rainfall from normal conditions Seamless forecast information Coastal flood warnings Early warning of extreme events such as hurricanes, floods, tropical cyclones, tornadoes, drought, heat and waves, winter storms, ice storms etc. and likely social & economic impacts Outlooks for staple crops, water supplies and public health impacts 	<ul style="list-style-type: none"> Medium (seasonal) and long-term climate trends and forecasts Probability of occurrence of extreme weather events like flood, drought, extreme temperatures and cyclonic events Updates on weather systems Likely social & economic impacts

Annex 4: Climate Information Services Selection Criteria (continued)

To access an editable version of this tool, go to www.climateinfo.org/resources/PCISSD-guide.

INCENTIVES TO ENGAGE USERS AT DIFFERENT LEVELS			
Last mile	Sub-national	National	Regional
<ul style="list-style-type: none"> • Improve yields • Improve access to food • Reduce input costs (water/irrigation, fertilizer, pesticides, labour etc.) • Increase income • Better fodder conservation • Reduced harvest and storage losses due to damages • Improved groundwater, soil and water conservation 	<ul style="list-style-type: none"> • Increase productivity and profitability • Increase input use efficiency • Increase household income • Increase household food security • Avoid crop losses 	<ul style="list-style-type: none"> • Improve food security • Increase agricultural productivity • Build resilience amongst the last mile • Empower farmers to manage uncertainties, inherent in climate forecasting • Increase profitability of agribusinesses 	<ul style="list-style-type: none"> • Improve regional food security and rural livelihoods • Reducing income risk • Increase agricultural productivity • Improve environmental health • Enhanced adaptive capacity in agriculture, natural resource management and food systems

Annex 5: Influence Relevance Matrix

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

INFLUENCE-RELEVANCE MATRIX

Power and influence	High		
	Low		
		Low	High
		Relevance	

This matrix is used to help analyze the relevant positions of different stakeholders with respect to two criteria: how **relevant** and how **powerful and influential** they are in order to inform the team’s engagement strategy. See further guidance in the *Identifying Key Actors* section of Stage 1.

- Make a list of the stakeholders/actors that you wish to include in the analysis
- For each actor in turn, discuss and then decide on their relative level of **Relevance**, low or high. Note the criteria you use to make your decisions.
- Repeat the process for each actor to decide on their relative level of **Influence**, low or high. Note the criteria you use to make your decisions.
- Place each actor in one of the four quadrants of the matrix according to the result of your analysis
 - o Power and Influence High / Relevance High
 - o Power and Influence High / Relevance Low
 - o Power and Influence Low / Relevance High
 - o Power and Influence Low / Relevance Low

Annex 6: Key Actor Profile

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Key Actor Profile

Contact information	<i>[address, contact details]</i>	
Background of organization	<i>Note down any relevant information that comes up in your research or key informant interviews. For example, what is their role in the CIS system? What is their relation to other CIS actors? How long have they been active in the system and what current or past activities have they been involved in?</i>	
Systemic issues	<i>What are the systemic issues that affect or involve the actor?</i>	
Key individuals in organization	Forward thinking / visionary	<i>Who within the organization is forward-thinking and most likely to be interested in taking part in the participatory CIS system development process?</i>
	Influential or relevant	<i>Who within the organization has power and influence to lead the organization to take on change?</i>
Needs and interests	Shorter term	<i>What are the actor's immediate and short-term (3 to 6 months) interests?</i>
	Medium term	<i>What are the actor's medium-term (6 months – 2 years) interests?</i>
	Longer term	<i>What are the actor's long-term (2 year – 5 + years) interests?</i>
Motivations	Reasons to engage	<i>What motivating reasons could the actor have for being part of the participatory CIS systems mapping process?</i>
	Reasons not to engage	<i>Why might the actor not want to be part of the process? What are the risks for them?</i>
Influential actors over the organization	Positive influences	<i>Whose participation will attract the actor to take part in the process?</i>
	Negative influences	<i>Whose participation will put the actor off taking part in the process?</i>

STAGE 2 TOOLS

Annex 7: Work Plan

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Work Plan		Week 1							Week 2							Week 3														
Task	Responsible	Start Date	Length	End Date	Actors Involved	Estimated Budget	Jan-00																							
							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1 Activity																														
1.1 Sub-activity																														
1.2																														
1.3																														
1.4																														
1.5																														
2 Activity																														
2.1 Sub-activity																														
2.2																														
2.3																														
2.4																														
2.5																														
3 Activity																														
3.1 Sub-activity																														
3.2																														
3.3																														
3.4																														
3.5																														
4 Activity																														
4.1 Sub-activity																														
4.2																														
4.3																														
4.4																														
4.5																														
Estimated cost of activities																														

Annex 9: Workshop Evaluation Form (Example 1)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

WORKSHOP EVALUATION FORM EXAMPLE 1

Please answer all questions. For multiple choice questions please tick only one answer.

Logistics

1. Suitability and comfort of the workshop venue
 Poor Good Very Good

Relevance

2. How much did you already know about this program before this workshop?
 Nothing Little Adequate
3. How well do you understand who the partners are on this program?
 Nothing Little Good
4. How well do you think you now understand this program after the workshop?
 Nothing Little Adequate
5. The issues covered at the workshop are relevant to the work of my institution
 No Maybe Yes
6. The program results, if successfully delivered, will help improve quality and impact of my work
 No Maybe Yes

Participation

7. There was adequate opportunity for everyone to participate
 No Little Adequate
8. The facilitators were knowledgeable and experienced on the topic
 No Little Adequate
9. The activities were interesting and engaging
 No Not sure Yes
10. The workshop had the right amount of time allocated
 No Just right Too long

Knowledge/Skills

11. The knowledge/skills learnt will help to improve delivery of my work
 No Maybe Yes

Interest

12. Based on what has been covered today, I am interested in continuing to be involved and participate in future program meetings/workshops.
 No Maybe Yes

13. Please provide any other comments you have about the workshop
-
-

Annex 10: Workshop Evaluation Form (Example 2)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

WORKSHOP EVALUATION FORM EXAMPLE 2

[Insert name of Workshop] Participant Feedback Form

[Insert name of organizer] has organized this participatory workshop to improve our shared understanding of the CIS system and identify constraints and opportunities for more effective CIS that meets the needs of smallholder farmers. Learning as we go is important to the work of [Insert name of organizer] and other development partners. Please give your frank insights and constructive criticism to help us improve. If you do not wish to give your or your organization's name that is fine. If you want to, particularly if you have a question that requires an answer, then be assured that your comments will not be attributed to you and any summary of feedback received will be entirely anonymous.

Date:

Is your organization:

() private sector, () a non-profit organization, () a government agency, () a multi or bilateral agency, or () other (please specify) _____

Please indicate on a scale from 1 to 4 how you would rate the usefulness of this workshop for your day-to-day work

1: not useful

2: somewhat useful

3: useful

4: very useful

What was your motivation to attend the workshop?

What was good or went well?

What was not good, could be done better, or should be improved for another similar workshop?

Annex 10: Workshop Evaluation Form (Example 2 continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Please mention one thing that you have learned today.

Can you identify one thing that you plan to do, or plan to do differently, following today's workshop?

What do you wish had been included in this workshop that was not?

What further support, if any, would like to see from **[Insert name of organizer or host]** in the future? How do you think **[Insert name of organizer or host]** could best facilitate improved partnerships in this area?

If another workshop was to be organized by **[Insert name of organizer or host]**, what would you like it to focus on?

Please add any other comments or questions you may have

Optional Contact Details

Name:

Organization:

Email:

Telephone:

Annex 11: Facilitator Feedback

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

FACILITATOR FEEDBACK TEMPLATE

Facilitation team members should give each other feedback face-to-face, in a constructive and mutually supportive way. This template can help to do that, and can be used at the end of each day’s workshop or participatory activities. Feedback can also be sought from people external to the facilitation team, either in written form or in discussion. The template asks for feedback on four areas of facilitation:

- Creating the space:** How effective was the facilitator at creating the right environment for learning and reflection, both for their team and for the CIS system actors? How effective was the facilitator at finding ways for the entire group of participants to feel they were on an equal playing field and for everyone to participate?
- Managing the energy:** How effective was the facilitator at gauging the group’s energy (lethargic, excited, negative, nervous, etc.), and at matching the activity with the energy level? For instance, did the facilitate use energizer activities when appropriate to bring energy up, to focus the group, lighten the mood, and/or get people thinking creatively and working productively?
- Channeling the process:** How effective was the facilitator at keeping the workshop moving towards its objectives, avoiding digressions, and managing pace and momentum? Did the facilitator end the workshop well with a good summary, giving clear recognition of what has been achieved and the contributions made?
- Moderating conflicts:** How effective was the facilitator at moderating conflicts between participants? Did the facilitator ensure that workshop time was allocated to productive topics and discussions and to reflection, rather than to negative input and argument?

Area of facilitation	Effectiveness of facilitation: <i>What did you see that indicated the level of effectiveness?</i>	Suggestions for improving facilitation: <i>What might the facilitator do to improve effectiveness?</i>
Creating the space		
Managing the energy		
Channelling the process		
Moderating conflicts		

STAGE 3 TOOLS

Annex 12: Identification and Analysis of Marginalized Actors

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

IDENTIFICATION AND ANALYSIS OF MARGINALIZED ACTORS TOOL

This tool is intended to be an internal exercise for the facilitation team to assist in designing the empowerment phase. There may be cases in which it is useful to utilize this in a participatory way, for example with a homogeneous group of marginalized actors (e.g. women or youth). In those cases, the facilitation team might find it more appropriate to frame the questions positively in terms of individual skills or organizational capacities that should be strengthened or acquired.

[insert name of marginalized actor]			
	Marginalization #1	Marginalization #2	Marginalization #3
<p>In what way(s) is this actor marginalized?</p> <p>Consider the dimensions of marginalization from the understanding marginalization in the CIS system section on page 28 in Stage 3, as well as Annex 13 Key Competencies and Skills for Marginalized Actors.</p>	[Note the skills/ capacity/ information needs for marginalization #1]		
<p>What are some of the factors that have contributed to this marginalization?</p> <p>Consider power structures, barriers to inclusion, knowledge gaps, conflicts, etc.</p>	[Note contributing factor for marginalization #1]		
<p>How can this actor be supported to overcome this factor for marginalization?</p> <p>What opportunities exist to promote the empowerment of this actor?</p> <p>Consider the skills or attitudes that this actor might require to engage with other more powerful actors.</p>	[Note opportunities or support needed (eg. information, training, skills building) for empowerment related to each marginalization factor]		

Adapted from: Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org.

Annex 13: Key Competencies and Skills for Marginalized Actors

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

KEY COMPETENCIES AND SKILLS FOR MARGINALIZED ACTORS

There is no one correct set of activities to empower marginalized actors. The right choice of activities depends on their needs and the specific context in which the methodology is being used. The following table includes some of the common key competencies and related skills that marginalized actors should acquire in order to engage effectively in conversations about improving a CIS system and advocating for their CIS needs. Facilitators should consider the key competencies and skills below when designing empowerment activities.

The goal is that by working on these skills, the actors can build a sense of agency and the ability to speak up in contexts they might not normally feel able to, which is a small step in the process of overcoming the challenges of more embedded cultural and social norms.

Key Competency	Related Skills
CIS Literacy	Understanding a system and placing themselves in it
	Seeing their influence on others
	Seeing themselves as knowledge sources and users
	Understanding and using the “CIS” language
Multi-actor Interaction	Understanding the importance of interaction for change
	Seeing from others’ points of view
	Communicating clearly, concisely, and confidently
	Articulating barriers and solutions
Representation and Mobilization	Understanding the benefits of cooperation
	Representing common challenges
	Reporting back effectively
	Getting other actors excited about change

Adapted from: Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org.

STAGE 4 TOOLS

Annex 14: Planning Participatory CIS System Development Events

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

PLANNING PARTICIPATORY CIS SYSTEM DEVELOPMENT EVENTS

Below are two complementary tools that can be used to plan participatory CIS system mapping workshops and other events with CIS actors. This first gives an overview of the complete series of events while the second is used for more detailed planning of each event.

TEMPLATE FOR PLANNING A SERIES OF EVENTS

This template can be used to outline the CIS mapping workshops and other events to be held during Stages 3 and 4 and record any important learning points. Use the *Milestones in Participatory Systems Mapping* (see Stage 4 guidance) to help visualize this journey and set objectives that can be used to measure progress. The facilitation team should review progress at regular intervals, check their assumptions, and revise the series of events based on the learning to help CIS actors progress on their journey towards greater cooperation and collaboration.

Event number	Type of event (workshop, meeting, forum, etc.)	Event's planned objectives	Summary of learning from event (filled-in after the event)
Event 1		Objective 1: Objective 2: Objective 3: Etc.	Learning 1: Learning 2: Learning 3: Etc.

Annex 14: Planning Participatory CIS System Development Events (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

PLANNING EACH WORKSHOP OR OTHER EVENT

This form can be used to guide the planning of a participatory mapping workshop or other event with CIS system actors.

Planning element	The plan for the workshop
Review of past experiences and prevailing conditions in the CIS system	<p><i>Any new workshop should build on what has already happened. Summarize in this section the information that you have considered from previous events or previous Stages, so that you can use it to build on what has already happened and make any adaptations necessary.</i></p>
Workshop Objectives	<p><i>Define the workshop objectives. These should be clear statements describing what outcomes you hope will be achieved from the workshop. Use the milestones described in Stage 4 to help you plan objectives to advance the CIS actors along the journey towards cooperation and collaboration to improve the CIS system.</i></p>
Who should participate?	<p><i>The choice of participants depends on the specific objectives of the workshop. You may decide that not all key actors are necessary for a particular workshop, or that actors in addition to those considered “key” may help to achieve the specific objectives of the workshop. The list of participants should adapt to suit the objectives of each workshop.</i></p> <p><i>You may find it useful to refer back to the Influence-Relevance Matrix from Stage 2 and revise it to help you identify the participants for the workshop.</i></p>

Annex 14: Planning Participatory CIS System Development Events (continued)

To access an editable version of this tool, go to www.climate-links.org/resources/PCISSD-guide.

<p>Who should carry out preparation and facilitate the workshop? (workshop partners)</p> <p>What exercises to use?</p>	<p>Consider whether partners can help prepare and facilitate workshops. These partners might be permanent actors in the CIS system or other organizations and institutions seen as 'outside' the CIS system. Factors to consider include:</p> <ul style="list-style-type: none"> • How partnering with CIS actors will help you to achieve the objectives of the workshop. Inputs from sector experts may be critical. Alternatively, CIS actors may see you as a potential funder or advocate for a particular group, and so you may need to find someone who is seen as more neutral among the CIS actors. • In later workshops when CIS actors are used to the process and have established significant levels of trust in each other, there may be opportunities to pass on some of the preparation and facilitation responsibilities to them. This will help build the ability of permanent actors to organize, convene and facilitate multi-stakeholder coordination meetings themselves in the future. <p>Based on the objectives you set for the workshop, you must choose appropriate exercises to help steer the process. Beyond the mapping exercises described in this guidance document, the following documents, located under Step 6 Participatory Market Mapping of Practical Action's PMSD Roadmap, present a range of possible exercises to choose from :</p> <ul style="list-style-type: none"> • Participatory Market Mapping Facilitator Guide • Supplementary Guidance Note: Workshop Exercises <p>These guidelines were developed for market systems development and may need to be adapted for use in CIS system development. Exercises are not substitutes for good facilitation. In the hands of a good facilitator, however, they are powerful instruments to help channel workshop activities towards achieving the objectives that have been set.</p>
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* Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org/roadmap-steps

Annex 15: Focus Group Discussion Guide

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

FOCUS GROUP DISCUSSION GUIDE

Focus Group Discussion Guide for Village/Commune Mapping

Questionnaire and guide used for village-level workshops during Senegal pilot

Date:

Village:

Facilitator(s):

Introduction

Presentation of the program and its objectives

A. Questions during mapping

1. For rain-fed agriculture, what are typical men's crops? Women's?
2. What are the environmental indicators and local knowledge you rely on for climate forecasts (e.g. migratory birds, appearance of vegetation)?
3. What, if any, agriculture-related programs are active in your community?
4. Do any of you receive climate information from a program? Which program?
5. What are the types of climate information you receive?
6. What communication channels provide you with this climate information?
7. What role do village leaders play in climate information communication?

B. Questions after mapping/while analyzing the map(s)

1. What are the challenges related to climate information reception?
2. What is the most useful climate information? Why?
3. What is not useful? Why?
4. How does climate information impact what you do? If it does not, why?
5. What actions do you take based on climate information you receive (e.g. buying early varieties)? Where do the means/services come from?
6. What are the main climate hazards you are facing?
7. What are the impacts of these climate hazards on rain-fed agriculture?
8. Thinking about the main climate risks you have identified, do you think that the climate information you are receiving is appropriate to your needs?

C. Reflection on challenges, opportunities and responsibilities

1. Is the climate information you receive accurate/reliable?
2. Is it received timely and in an accessible language?
3. What are the most trusted climate information dissemination channels?
4. What other types of climate information would you want to receive, apart from the ones you usually receive?
5. Do you receive guidance from technical structures when choosing crop varieties that are adapted to seasonal forecasts?
6. What are some opportunities to address the challenges that were identified?

Annex 15: Focus Group Discussion Guide (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

D. Workshop evaluation:

1. Was the presentation of the program and its objectives clear?
 Yes No
2. What do you mostly remember about the CISRI program?
3. Were discussions on the CIS issue and the facilitation approach useful for you?
 Yes No
4. How would you rate the CIS mapping exercise?
 Interesting Neutral Uninteresting
5. Do you think that everybody had an opportunity to participate during the workshop?
 Yes No
6. What would you suggest to improve the workshop in the future?

Annex 16: Seasonal Calendars

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

SEASONAL CALENDARS

Seasonal calendars form part of the basic toolkit of participatory rural appraisal (PRA).

They are used to explore seasonal changes (e.g. gender-specific workload, diseases, income, expenditure) related to the issues under study. In the agricultural sector, variables such as rainfall, labor, income, expenditures, debt, animal fodder, pests and harvest periods can be drawn (or represented with stones, seeds, and sticks) to show month-to-month variations and seasonal constraints (e.g. labor) and to highlight opportunities for action. An 18-month calendar can better illustrate variations than a 12-month calendar. Seasonal calendars can take different forms and should be adapted according to the issues being explored and the participants you are working with.

During participatory CIS system development, a seasonal calendar can be used as a preliminary exercise with farmers to introduce the topic of climate information and how it relates to key decisions that the farmers need to make. This is particularly useful for farmers who have little or no access to CIS or are not familiar with the concept or the potential impacts. A seasonal calendar can also help farmers to reflect on the quality and timeliness of the climate information they receive - or need to receive - from a given CIS.

The first step is to develop a basic seasonal calendar, showing monthly changes in climate variables, such as rainfall and temperature, and in agricultural activities (different activities undertaken, crop cycles, etc.).

Secondly, participants are invited to identify the climate-related risks (drought, flood, pests etc.) that they face and the decisions they might take to manage the risk. The months where risks occur and the dates by which risk management decisions must be taken are added to the calendar.

Next, the timing and types of CIS accessed by the farmers can be explored and added to the calendar. Where members of the group are unfamiliar with the concept or utility of CIS, the facilitators can help other group members to provide explanations or, as a last resort, provide the required information themselves using context-relevant examples. Facilitators should also include the role of traditional ecological knowledge as a source of climate information.

Finally, once the calendar has been completed, the facilitator should use a semi-structured interview (a list of questions prepared in advance) to help participants analyze the information in the calendar and identify the implications in terms of their CIS needs. This activity can inform and feed into the participatory mapping exercises described in Stages 3 and 4.

General guidance on how to do a seasonal calendar, as well as an example of a seasonal calendar, is available in Catholic Relief Services' *SMART Skills for Smallholder Farmers* curriculum. See Exercise 2C within the [Managing Natural Resources](#) toolkit of the curriculum.*

*Catholic Relief Services and MEAS project. (2015). *Managing natural resources: A SMART Skills manual*. Retrieved from: <http://www.crs.org/our-work-overseas/research-publications/managing-natural-resources>.

Annex 16: Seasonal Calendars (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

La Inmaculada. "Community"

Climate and Farming Activities Calendar.

	E	F	M	A	M	J	J	A	S	O	N	D
Climate	///	////	////	////	////	////	////	☀	☀	☀	☀	☀
Cattle	—	—	Cattle in Jima	—	—	—	—	Cattle taken to the woods.	—	—	—	—
Maize	Weeding	Second Weeding					HARVEST	ploughing	Planting	Planting		Weeding
Potatoes	Weeding	Planting	Harvest						Planting	Planting	Weeding	Hilling up
Cereals	Planting					Harvest						

Source: Catholic Relief Services and MEAS project. (2015). *Managing natural resources: A SMART Skills manual*. Retrieved from: www.crs.org/our-work-overseas/research-publications/managing-natural-resources.

Annex 17: National CIS Mapping Workshop Example Agenda

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

EXAMPLE OF NATIONAL-LEVEL PARTICIPATORY CIS MAPPING WORKSHOP AGENDA



National CIS Mapping Workshop, CISRI, Dakar, 14 March 2018

AGENDA

Timing	Description	Responsible	Duration
Session 1. Plenary			
08:30-09:00	Arrival and registration	CRS & PAC	30
09:00-09:20	Opening and welcome	CRS Country Director	20
09:20-09:35	Introductions of participants	Moderator	15
09:35-09:40	Overview of agenda	CRS	5
09:40-10:00	<i>Coffee break</i>		20
Session 2. Plenary			
10:00-10:45	Presentation of CISRI program objectives and results from village/regional mapping workshops <ul style="list-style-type: none"> - Objectives for the workshop - Break into groups (intentionally mixing members of local and national government, the research community, media, civil society and NGO implementers) 	CRS & PAC	45
Session 3. Group work			
10:45-12:45	Mapping the system and identifying challenges and opportunities as a mixed, multi-stakeholder group	CRS, PAC & Participants	120
12:45-13:30	Each group shares their challenges and opportunities	Participants	45
13:30-14:30	<i>Lunch</i>		60
Session 4. Plenary			
14:30-15:30	Discussion of recommendations and ideas for action plan, with specific roles for each category of key actors (government, media, research, NGO implementers, etc.)	Participants	60
15:30-16:15	Discussion on next steps and timeline	Participants	45
16:15-16:30	Evaluation of workshop	CRS/PAC	15
16:30-17:00	Synthesis and closure	CRS & Moderator	30

Annex 18: Feasibility Assessment for Opportunities Tool

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

FEASIBILITY ASSESSMENT FOR OPPORTUNITIES TOOL

This tool provides a list of questions that the facilitation team and permanent actors can use to review proposed opportunities to improve the CIS system. For example, the opportunity to provide climate information in local languages on national radio and TV channels was identified in both the Niger and Senegal pilots. Using the checklist will help actors to assess whether a proposed solution is technically feasible, and to identify any pre-conditions or accompanying actions that are required for this solution to be implemented successfully. The facilitation team should review and adapt the questions as required, as some may not be relevant to the opportunity being assessed. The tool can be used when actors are developing action plans at the end of Stage 4, and through implementation in Stage 5.

Feasibility Assessment Questions	Response
Difficulty	
Is the required technology available?	
Is the required technical knowledge available among the actors involved? If not, can this knowledge be easily obtained elsewhere?	
Is there support for the solution from all the actors who will need to be involved in implementing it?	
Does the solution require long-term support or involvement from the actors?	
Are there any government policies or institutions that could block the solution?	
Does it go against social and cultural norms?	
Is there any animosity between actors that needs to be overcome before the solution can be carried out?	
Risks	
Is there a danger of any actor having negative repercussions as a result of the solution, for example with regards to financial security, social status, vulnerability or health?	
Can you foresee any unintended consequences that could result from implementing the solution?	
Are there any contextual risks such as corruption, violent conflict or exposure to natural disaster?	
Costs	
How expensive will the solution be to implement and maintain?	
Who will pay for the solution? Do they have sufficient funds and motivation to do so?	
If not, is there anyone else available who might be willing to fund the solution?	
Do finance mechanisms exist (e.g. loans or grants) to cover the costs of the solution?	
Are more affordable solutions available? Can any actor provide in-kind benefits to reduce costs?	

Annex 19: Action Record

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

ACTION RECORD TEMPLATE

This template can be used to record proposals for actions arising from the collective analysis and reflection of a group of CIS stakeholders. It can be used for action planning at the final Stage 4 workshop and for ongoing action planning during Stage 5, with Champions, opportunity or interest groups, or other stakeholders.

The particularity of this template is that it puts the responsibility on the group to find members who are able and willing to lead each proposed action, or to mobilize whichever stakeholder is best placed to lead. It assumes group members are permanent actors in the CIS system and not members of the temporary facilitation team. As the commitments of these actors are typically not contractual, the group must be certain to identify those individuals that are interested, motivated and capable of carrying forward the actions for which they are responsible. The Action Record Template therefore serves as a way to clarify and organize responsibilities, not enforce them.

Step by step instructions for using the template are provided below.

Opportunity/Interest Group Name (if applicable):

ACTION: description (what) & deadlines (when)	Who can lead this action?		
	Someone from the group can lead this action (who)	Someone from the group can mobilize someone else to lead this action (who)	No one from the group can mobilize someone to lead this action [only add this column as a last resort]
	<i>Who is responsible to lead?</i>	<i>Who is responsible to mobilize?</i> <i>Who is to be mobilized to lead?</i>	<i>[Facilitator name] is responsible</i> <i>Who is to be mobilized to lead?</i>
Action 1 What: When:			
Action 2 What: When:			
Action 3 What: When:			
Etc.			

Annex 19: Action Record (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

Instructions for using the template:

1. Copy the first three columns on to flipchart paper. Leave space for the fourth column but do not add it just yet (see below).
2. Ask the group to list the actions they have identified, giving a description and dates for starting and ending the action.
3. For each action, ask the group to identify which group member(s) is/are well placed to lead it. Try to secure the commitment of one group member to lead the action.
4. If the group cannot identify or secure the commitment of a member, invite them to identify who from outside the group might lead the action. Try to get one of the group members to be responsible for mobilizing this external actor, to ensure that someone in the group is still accountable for this.
5. If no group member can lead the action or mobilize someone else to lead it, leave the 2 columns empty for the moment.
6. Repeat steps 2-5 until all the actions have been considered. If there are still actions for which no group member has been identified, then the fourth column can be added. In this column, the temporary facilitator may add their name if they are able to take on the responsibility to mobilize whoever needs to lead the activity. However, this should be done only as a last resort, and it is important that the emphasis is on the facilitator mobilizing others to lead the action, rather than leading the action themselves.

STAGE 5 TOOLS

Annex 20: Relationship Matrix for Participatory Monitoring

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

RELATIONSHIP MATRIX FOR PARTICIPATORY MONITORING

This tool can support monitoring, evaluation and learning during Stage 5. The facilitation team should not use the tool on their own, but facilitate its use with the permanent CIS actors, including champions. When effectively facilitated, the tool can encourage a process of reflection among permanent system actors that can, by itself, catalyze changes in attitudes.*

The first step is to decide which relationships, between which pairs of actors, will be tracked. In a complex system, it may not be feasible to track all relationships. The participatory systems mapping process in Stage 4 will help to identify relationships where changes are essential or desirable to improve the system's functioning, which can support this decision-making. In the example below, the tool was used by a market system development program in Southeast Asia and shows relationships between farmers (actor 1) and traders (actor 2) and between traders (actor 2) and processors (actor 3).

The next step is to identify the processes that can be used to assess the quality of relationships between these pairs of actors. In the example below, the team identified five processes: 1) transactions and purchasing; 2) information sharing and transparency; 3) quality control; 4) value added and collaboration; and 5) basis of competitive offer. Processes to monitor within a CIS system will differ, but may also include information sharing, transparency, and collaboration, and others specific to the interactions between the actors in your CIS system. Use the linkages between actors noted in Stage 4 mapping to help identify these processes.

Once the basic matrix is in place, the next step is to fill it in. This should be done for each of the processes one relationship at a time, recording information in the three columns as follows:

- **Baseline:** Describe the process as it is now between these two actors, or ideally how it was before the mapping process started; for example, before the last seasonal forecast was disseminated. In a CIS system, the baseline may be: *Farmers have no avenue for communicating to radio stations whether the climate information they received was clear and timely.*
- **Current:** This will be filled out going forward, after the first time, to describe any changes that have occurred since the baseline. Note the reasons for changes, and whether the mapping process contributed to the change. Put this information in an accompanying text if there is not room in the matrix. For example: *During the mapping exercises, the participants identified an intermediary for the farmers to give feedback to radio stations.*
- **Future:** Stakeholders describe how they would like the process to look in the future, noting the ideal relationship between the actors. This helps actors think of possible changes to get to that state, and when the actors concerned are actively taking part in the process and see their potential to improve the relationship, it can help to change attitudes. For example: *Farmers have a trusted intermediary and have seen adjustments in the way in which the radio station communicates climate information based on their suggestions.*

* This tool was developed by the Swiss Agency for Development and Cooperation (SDC) Asia and adapted by Practical Action to track changing relationships between agricultural market system actors. The tool was not used in the CIS systems development pilots in Niger and Senegal due to time constraints.

Annex 20: Relationship Matrix for Participatory Monitoring (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

The final step is to update the current and future sections of the matrix at regular intervals as necessary depending on the timeframe of your engagement.

- **Current:** Revise the description to reflect changes since the last review. Note any explanations or reasons given for the changes that have taken place.
- **Future:** Does this still describe how you would like this relationship to look in the future? Revise it if needed as the vision may have evolved. Even if the desired change has been achieved, there may still be room for improvement.

Example: Participatory Monitoring of Relationships in an Agricultural Market System in SE Asia

Baseline, Current, and Future Picture of Relationships					
BETWEEN (Market Actor 1) AND (Market Actor 2) E.G. FARMERS AND TRADERS			BETWEEN (Market Actor 2) AND (Market Actor 3) E.G. TRADER AND PROCESSOR		
Baseline	Current	Future	Baseline	Current	Future
Process 1 e.g. Transactions and Purchasing					
Spot selling and purchasing	Longer term relationships beginning to develop. Each trader has informal network of suppliers. Commitments from traders to take product from regular suppliers.	Long-term trading partnerships and relationships established and are growing business for both actors.			
Process 2 e.g. Information Sharing/Transparency					
			Limited, one-way flow of info.	Info on demand in the short and medium term; plus production issues. But info only provided on ad hoc basis. Buyers uneasy about providing traders with info on market and company's operations.	Flow of information enables joint efforts to respond to market demands, including innovation, and both actors can jointly take advantage of market opportunities.

²⁶ Examples adapted from SDCAsia BDS Project Report on the kaong Subsector

Baseline, Current, and Future Picture of Relationships					
BETWEEN (Market Actor 1) AND (Market Actor 2) E.G. FARMERS AND TRADERS			BETWEEN (Market Actor 2) AND (Market Actor 3) E.G. TRADER AND PROCESSOR		
Baseline	Current	Future	Baseline	Current	Future
Process 3 e.g. Quality control					
Quality control rarely done. % of rejects or price penalties	Quality control conducted at buying stations	Quality control the norm. Low % of rejection rates			
Process 4 e.g. Value-added services and Co-operation					
Traders provide limited learning and skills to farmers based on local norms.	Traders monitor production and delivery stages. Training and mentoring services to solve production bottlenecks. Buying stations set-up to reduce transportation costs and/or 'walking'.	Interdependence and partnership. Both parties work together to exploit cost, quality, technical, and marketing advantages.			
Process 5 e.g. Basis of Competitive Offer					
Price; Strong supply of product.	Increase volume of semi-processed products; Good quality products; Lower cost of transactions resulting in competitive pricing structure and more consistent prices.	All parties transact business under better conditions primarily through specific differentiation factors other than price.	Price and supply availability	Quality improvements: community is becoming known for top quality products. Economies of scale and lower costs of transaction.	Quality, cost efficiency and price, dependability and reliability, socially responsible trading practices.

Source: USAID. (2008). *Participatory Market System Development: Best Practices In Implementation Of Value Chain Development Programs*. Retrieved from: <http://www.marketlinks.org/library/participatory-market-system-development-best-practices-implementation-value-chain-development>

Annex 21: Four Communication Funding Models

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

FOUR COMMUNICATION FUNDING MODELS

As CIS stakeholders look to implement various activities to improve the system, whether to diffuse climate information to farmers through various communication mechanism, or to communicate with other actors, funding is often mentioned as a constraint. This guidance note provides ideas on when to use different funding models for communication efforts, and can be helpful particularly during Stage 5.

The table below presents the key aspects of four communication-funding models and the types of knowledge that are most suitable for each. The four models are: **direct, embedded, subsidized and sponsored**. The facilitation team can use this when designing the communications strategy associated with their CIS systems development work. It may also help guide permanent CIS system actors to reflect on appropriate business models for different CIS and associated agricultural advisory services.

Note that all of these models cover scenarios where someone pays someone else to communicate knowledge to others. They are not specific to CIS systems development and can be applied in any situation where the objective is to maximize the outreach and sustainability of knowledge dissemination.

KEY ASPECTS OF FOUR COMMUNICATION FUNDING MODELS			
Funding Model	What is it about?	Main Incentives to Pay	Type of knowledge that can be communicated this way
Model 1: Direct	"I want your knowledge and I can pay for it."	Need for knowledge	<p>Explicit but highly specialized knowledge, protected by intellectual property rights or difficult to find</p> <p>Implicit knowledge that requires lots of practice to acquire and/or highly specialized trainers</p> <p>Implicit knowledge when its practice exposes the learner to dangerous situations or requires specialized equipment or safety conditions</p> <p>e.g. traditional pay to access information service provision, such as professional agricultural service providers, pay to ID diseases, provide seasonal forecasts, https://www.ears.nl/</p>

Annex 21: Four Communication Funding Models (continued)

To access an editable version of this tool, go to www.climatelinks.org/resources/PCISSD-guide.

<p>Model 2: Embedded</p>	<p>“If we make a deal I’ll tell you something you need to know.”</p>	<p>Need to create competitive advantage and differentiation from competitors</p>	<p>Explicit knowledge that has low business value in itself but is useful to increase the performance or value of the product/services exchanged.</p> <p>e.g. regular updates provided with a service contract, or when an agriculture extension worker sells a service (eg artificial insemination) then also provides information about animal welfare</p>
<p>Model 3: Subsidized</p>	<p>“I will pay for the production and dissemination of knowledge because it is good for society.”</p>	<p>Need to promote a political, developmental or moral agenda</p>	<p>Explicit or Implicit knowledge when:</p> <ul style="list-style-type: none"> ○ The perceived business value of the knowledge is low (e.g primary education) ○ When knowledge is highly transferable between sectors ○ When the links between knowledge and value addition in a specific sector are not clear (e.g. basic science) <p>e.g. Public service announcements; specialist services such as a national Health Service helpline</p>
<p>Model 4: Sponsored</p>	<p>“I can pay for that knowledge as long as my brand goes with it.”</p>	<p>Need to create or expand brand recognition</p>	<p>Explicit or Implicit when the production, dissemination or adoption of knowledge creates a more receptive or friendly enabling environment, good reputation or recognition of the funder.</p> <p>e.g. regular weather forecast with the met agency logo on the screen; or logo of bank or other local business</p>

Adapted from: Practical Action. (2012). *The Participatory Market System Development (PMSD) Roadmap*. Retrieved from: www.pmsdroadmap.org.

