KIT

Royal Tropical Institute

Smart Water for Agriculture

Irrigation Acceleration Platform Guidelines

Creating and facilitating stakeholder collaboration for accelerating farmer-led irrigation development

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Abbreviations / Glossary

Adaptation	A new idea, practice, technology or system is modified to fit to local realities before being used.
Adoption	A new idea, practice, technology or system is accepted and put into use.
Agricultural Innovation Platform	A systematic effort to organise and facilitate interaction and collaboration between stakeholders to accelerate innovation in a given area through joint action.
Agricultural Innovation System (AIS)	The complex of actors and their interrelations that contribute to the generation, dissemination and application of new knowledge, practices, technologies and systems.
Capacity to innovate	The ability to identify and prioritize problems and opportunities and to develop, experiment with and test, spread and put into use new options.
Experiment	An activity to systematically try out and study a new idea, practice, technology or system.
Farmer-led irrigation development	Irrigation development initiated by farmers experimenting and finding irrigation solutions in their situation drawing in support from others if and when needed.
Gender	Gender defines what it means to be a man or woman, boy or girl in a society – it suggests specific roles, status and expectations within households, communities and culture. (CARE International 2009).
Incubation	Provides organisations or enterprises with the nurturing environment needed to develop and grow their businesses, offering intensive business support, access to finance and experts to make businesses to grow.
Innovation (verb)	Creating, testing, adapting, and putting into use new ideas, practices, technologies or systems in economically and socially significant ways.
Innovation (noun)	New ideas, practices, technologies or systems put into practice and used in a given location.
Irrigation Acceleration Platform (IAP)	A systematic effort to organise and facilitate interaction and collaboration between stakeholders in irrigation development to find and scale-out effective smart water solutions.
Piloting	Small-scale trial initiated to check the conditions and operational details before full scale launch.
PLA	Participatory Learning and Action

SACCO	Saving and Credit Cooperative society
SWA	Smart Water for Agriculture
SWS	Smart Water Solutions
SME farmers	Small and Medium size Entrepreneurial farmers

1. Introduction

What is the SWA project about and why does it promote irrigation acceleration platforms?
What are these guidelines and for whom are they?
How can we best use the guidelines?

SWA and the need for Irrigation Acceleration platforms

The Smart Water for Agriculture (SWA) project is a new initiative coordinated by SNV Kenya trying to strengthen and improve water use and management among irrigating Kenyan farmers in 6 counties. Running from 2016-2019 it looks at all levels and along the full irrigated agriculture value chain.

Discussing irrigation and irrigated agriculture people tend to think of – government build and often managed – irrigation schemes. These schemes are often not without problems in terms of management and sustainability. But in Kenya as well as in other parts of Sub-Saharan Africa thousands if not millions of farmer have taken own initiatives and invested in developing irrigation, individually or in groups. These efforts have often gone un-noticed in official statistics. Support and technologies provided by the government, NGO and private sector projects is not always effective in reaching these farmers as interventions do not match the complex realities faced by the farmers. To make such support more effective, interactive innovation development approaches are needed where farmers and technology users play an important role in field-testing, redesign, and final selection of new water use and management technologies and practices.

Development of irrigated agriculture is a complex process. It involves stakeholders such as farmer, their organisations, government agencies, banks for credit, traders for marketing, NGOs for technical support, and suppliers of irrigation hardware and other inputs. In the reality of Kenya these actors rarely coordinate their efforts. At the ground one actor often does not know what the other is doing. Efforts often overlap or even contradict each other seriously slowing down development.

The SWA project therefore promotes interaction, joint learning and coordination and cooperation among stakeholders involved in the development of farmer-led irrigation as well as more effective interactive innovation development with an important role for technology users. To this end SWA will help facilitate so-called Irrigation Acceleration Platforms in each county where the project operates as well as the national level.

The guidelines

This publication gives guidelines on how to initiate, develop and sustain Irrigation Acceleration Platforms (IAPs). They are for hosts and facilitators of IAPs as well as organizations interested in playing an active role in an IAP. Many others involved in promoting inclusive innovation processes and stakeholder collaboration in agricultural development may find them of interest too.

These guidelines are based on several streams of experiences in Kenya as well as elsewhere. First of all it builds on the work and lessons learnt in facilitating agricultural innovation. It also draws from experiences in participatory approaches to support farmer-led irrigation development. Finally insights and methods and tools recommended in literature on multi-stakeholder collaboration in general have been integrated in these guidelines. Key sources used are listed at the end of this chapter, suggested for further reading if one is interested to study on more detail issues raised in these guidelines.

The guidelines are structured in such a way that if you are interested to know how to practically initiate and facilitate an IAP you can go to Chapter 4 that gives you a direct overview of the process while not forgetting to check Chapter 3 for important issues to consider before initiating and IAP. Chapters 5 and 6 provide suggestions for specific IAP steps or activities and rated skills. At the end of each chapter you will find references and links to detailed information on methods and tools mentioned in the text. If you are interested to understand better some of the main concepts and ideas on which IAPs are based and reasons for setting them up you need to start with Chapter 2.

Further reading

SNV Kenya et al, 2015. Smart Water for Agriculture: Concept Note to Embassy of the Kingdom of the Netherlands, Kenya; www.snv.org/update/new-euro-6m-programme-smart-water-agriculture

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http://thepartneringinitiative.org/publications/toolbook-series/the-partnering-toolbook/

2. Background and basic concepts

Why is the promotion of irrigated agriculture a complex challenge and what does this imply?
What do we mean with innovation, innovation systems and platforms and why do we need to know this?
What is an Irrigation Acceleration Platform and what does it try to achieve?
What is the deeper meaning of facilitation?

Irrigated agriculture: addressing complex development challenges

In developing irrigation in Kenya, farmers, agri-businesses and their support agencies from the government or NGOs operate in an increasingly complex environment. Rainfall patterns are highly variable, both annually and across seasons, a challenge likely to be further exacerbated by climate change. Markets are changing continuously with new opportunities presenting themselves today that may not be feasible anymore tomorrow. Policies and regulations provide further both challenges and opportunities.

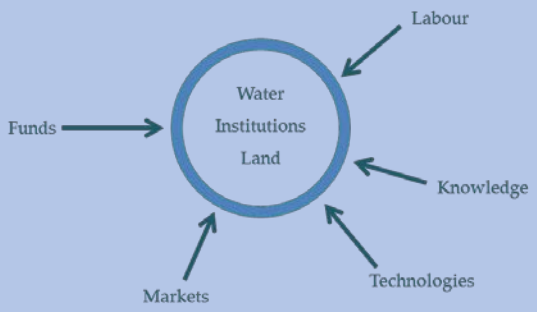
Development of farmer-led irrigation – irrigation efforts following farmers' own initiative and investment –is thus a complex process. Box 1 summarises this emphasizing the complexity in three ways:

- Development to take place needs many different drivers for change to be in place: Not just land and water, but also a/o markets, institutions and funds;
- It often requires changes that go beyond the individual farmer and his/her land;
- It thus requires involvement of different people and organizations with their respective stake in the development.

Box 1. Farmer-led irrigation as a complex challenging situation

Multiple dimensions: There are 8 important drivers to innovation in farmer-led irrigation. To allow innovation to take place, combinations of these drivers need to be in place, depending on the new practice (Beekman et al, 2014).

Multiple levels: Innovation in farmer-led irrigation most often refers to changes at plot or farm level. However, to make innovation happen, changes may also be required at the household, community, county, or national level.



Multiple actors: Innovation in farmer-led irrigation to happen needs involvement of different stakeholders from communities, government, NGOs, research and private sector. Innovation requires changes in the collaboration and interaction patterns between these stakeholders.

To respond to these challenges and develop irrigated agriculture, farmers and the other stakeholders need to interact and collaborate in order to be able to adapt and innovate continuously.

Innovation, innovation systems and platforms

When farmers try to irrigate in a different way, when we sell them a new pump or when a trader proposes contract farming as a better way of marketing - innovation is being initiated. ***Innovation*** happens when new knowledge, practices, technologies are created, tested, diffused, accessed, adapted, and, most critically, put into use (Box 2). The most important driver for innovation is the search for progress by individuals and organisations, and their efforts to address problems and make use of opportunities. New opportunities may emerge as a result of research but also because of changes in markets, regulations, climate, values and stakeholder interaction.

Box 2. Characteristics of agricultural innovation

- Innovation is an unpredictable and complex process.
- Technological innovation depends on changes in and by people.
- Innovation is influenced by many actors with own specific roles and interests.
- It can happen when different actors meet, exchange experiences, ideas and opinions.
- It often requires both technological, social, organizational and institutional changes.
- Innovation happens when people look for progress, try to address threats or problems or make use of opportunities.
- New opportunities may emerge as a result of research, changes in markets, regulations, climate, values and stakeholder interaction.

Where development happens farmers and stakeholders, individually and jointly, show they have what is called ***a capacity to innovate:*** They are able to identify and prioritise problems and opportunities in a complex and dynamic environment, and develop, mobilise, access, experiment with and spread new ideas, practices and technologies. Seen in this light a major overall and business development objective of SWA is to strengthen the capacity to innovate, of the people involved, their organisations and their networks.

People and organisations involved in making a particular innovation happen form what is called an ***agricultural innovation system*** (AIS). An AIS is thus the complex of actors and their interrelations that contribute to the process of generating, disseminating and applying new knowledge, practices, and technologies. For certain, often simple, innovations, the AIS can be small and localized, while in other cases it may include many organizations at different levels, including policy makers. The main idea behind AIS thinking is the importance of the complementary of roles of those involved. It stresses the importance of linkages between them and emphasizes that all have relevant knowledge and are sources of innovation.

To strengthen collaboration and linkages among people and organizations involved in a specific agricultural innovation process ***Agricultural Innovation Platforms*** (AIPs) are often initiated. Agricultural innovation platforms are a systematic attempt to accelerate change through joint action, often for addressing complex problems. They create an opportunity to share information, coordinate and undertake joint actions needed for innovation to take place.

AIPs make sense when they manage to achieve the common goals while also realising and safeguarding individual interests. The functioning of AIPs is based on a number of key principles as in Box 3.

A platform can take many different shapes. It can be a very light mechanism, e.g. just the agreement to meet annually for a sharing and planning activities organised by one of the members, or a very structured semi-organization with a full time facilitator and/or an office. The form it takes depends very much on the goal of the platform, the type of activities foreseen, resources available and the local context. But even when structured, a platform needs to be dynamic and flexible, changing with new actors joining and old ones leaving in response to the new situations.

Box 3: Basic principles of Innovation Platforms

- Diverse composition of stakeholders.
- A common goal and joint interest, not the agenda of one or two members only.
- Facilitation by a credible person/organisation able to take a neutral position.
- Change resulting from AIP benefitting multiple members.
- Focus on open exchange and learning.
- Transparency and accountability ensured.

Irrigation Acceleration Platforms and the SWA project

As shown earlier, to accelerate farmer-led irrigation development in Kenya linkages and collaboration between relevant actors is very much needed to create the momentum for innovation among small and medium-sized entrepreneurial farmers. The SWA project helps to facilitate this through strengthening or setting-up what is called ***Irrigation Acceleration Platforms*** (IAP). IAPs have many of the above features of agricultural innovation platforms and have the explicit objective to facilitate multi-stakeholder interaction to find and scale effective smart water solutions. They are a place where the supply and demand side can meet and interact, where innovation can be initiated and supported, and where the private sector, farming communities and actors of the enabling environment can engage to analyse problems and propose strategies that work. SWA chooses to initiate IAPs at the level of target counties as well as at the national level.

Box 4. Irrigation Acceleration Platforms in SWA

In the SWA project, each county has an Irrigation Acceleration Platform with a ***host organization,*** a staff member of which acts (part-time) as ***IAP facilitator***, supported by the project team's ***IAP advisor.***

SWA thus has one main component or outcome area to strengthen coordination, learning and innovation through the forming IAPs. At the same time these IAPs will also play a crucial role in all other components of the project such as the development of new smart water products and services, improvement of financial services and strengthening of business linkages. Box 5 summarises the main roles and functions of the IAPs in the project.

Box 5: Roles and functions of Irrigation Acceleration Platforms

- Connect stakeholders and facilitate interactions to achieve effective concerted action.
- Provide opportunities to jointly assess and prioritize challenges and opportunities related to water productivity to find best strategies to address these.
- Identify and experiment with Smart Water Solutions (SWS) in a systemic way.
- Mobilise resources and effective support services around promising options, including financial services and linkages to companies investing in SWA-services and products.
- Promote promising Smart Water Solutions, create demand and markets to allow their upscaling.
- Allow sharing and accessing information, knowledge experiences related to (promotion of) SWSs.

Facilitation

Stakeholders do not always naturally cooperate and/or share information freely. They may have divergent or competing interests, or have been disappointed in previous efforts to collaborate. To overcome these challenges one or more people need to bring them together again, help analyse issues, needs, and the benefits of working together and ensure agreement on actions where relevant. This is what is called ***facilitation of the IAP***. Table 1 (adapted from Nederlof et al, 2011) gives a deeper understanding of what facilitation is about by listing relevant sub-roles.

The facilitation of an IAP requires individual(s), ***the facilitato***r, the person(s) handling the facilitation process and a ***host organisation***, the place where the facilitator works and from where she/he operates and derives support. The host organisation usually accepts the overall responsibility for the facilitation of the IAP in general.

The facilitator(s) central task is to create dialogue and stimulate collective action by the members of the platform for the common goal. He/she does not have to perform all of the tasks in Table 1 her/him-self but ensures that they are taken care off. Delegating tasks and roles to platform members best placed to perform them is not only often cost efficient but also very much contributes to building commitment from members.

The core roles and performance areas of an IAP facilitator listed in Table 1 are also the areas on which her/his functioning could be evaluated. To this end the table includes suggestions for assessing IAP facilitator's performance in each area.

Table 1. Key performance areas and assessment criteria for IAP Facilitators

Performance area	To be achieved	Assessment
Facilitation and brokering	Facilitating interactions between stakeholders towards the common objective. Establishing trust, establishing working procedures, fostering learning, motivating, and managing conflict. Brokering connections between actors that benefit from each other's services or roles. Bringing multiple actors together informally, more formally or bilaterally.	Number of stakeholder groups represented and actively participating in platform meetings. Quality and interactivity of meetings. Bi/multi-lateral agreements (formal / informal) between different actors.
Building networks	Scanning, scoping, filtering, and matchmaking partners with complementary resources, including matching information or product demand and supply.	Number and diversity of stakeholder groups represented in the IAP.
Clarifying key issues	Help define main challenges and opportunities that the IAP will address. Solicit further studies if needed to deepen understanding. Keep IAP focused on priority tasks agreed by members.	Challenges and opportunities identified and activities developed accordingly.
Mobilising external support	Promoting the platform to ensure support and buy-in into the network by individuals and organisations that matter. Lobbying essential stakeholders to join and contribute resources to the platform. Representing the IAP and its members at higher levels.	Quality of support provided by non-platform members. Resources committed to the IAP's activities. Participation in external meetings, networks and fora.
Problem solving and mediation	Identifying, proposing and providing practical solutions to address bottlenecks hindering progress of multi-stakeholder action. Undertaking conflict resolution and preventing (hidden) power struggles.	Technical advice provided and accepted by platform members. Number of conflicts addressed successfully.
Capacity building	Monitoring and identifying capacity gaps for implementing SWS and help find ways to develop the capacity required.	Capacity development plans for IAP members developed and implemented.
Management	Regular planning and reporting flows (narrative, financial) from stakeholders, through IAP to SWA and vice-versa.	Timeliness and quality of planning and reporting docs.
Documentation	Ensuring that process and results of meetings and activities are well captured so that they can be shared more.	Main findings and lessons learnt captured in well organised and accessible documents.

An effective facilitator is able to take a neutral position, can work with all, and does not push the agenda of the own organisation or any other particular agenda for that matter. Facilitation of an IAP is an art in itself. Host organisations and facilitators need to reflect whether they have the required skills. If not they look for opportunities for training and personal coaching and organize periodical reflection and learning meetings to learn from experiences and guide further facilitation. The practical guidelines for IAP facilitation in the following chapters can be an important resource in this capacity building process.

In providing ***leadership to the platform*** facilitators need to make conscious choices on the type of leadership they provide, depending on the issues at hand:

- Facilitative leadership, where he/she creates conditions for other members to work better without necessarily having authority over them. This is more effective in most cases where organizations and individuals come together as equals, and where new ideas need to be produced freely.
- Affirmative leadership, where he/she is recognised by others as having authority for decision-making. This is effective in situations when time is limited and decisions must be made in order to meet deadlines.

Further reading

Beekman, W., Veldwisch, G. J., & Bolding, A. (2014). Identifying the potential for irrigation development in Mozambique: Capitalizing on the drivers behind farmer-led irrigation expansion. Physics and Chemistry of the Earth, Parts A/B/C, 76, 54-63.

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3. What you need to consider before initiating an IAP

Who should be member of the Irrigation Acceleration Platform?
To what extent should the platform be formalised?
What is important to consider in strategizing platform structure and management?
How to manage platform power issues?
How can one integrate gender concerns right from the start?

Member (self-) selection

An irrigation acceleration platform to be effective needs to have the right people and organizations. In strategizing membership selection you may need to consider the following.

Stakeholders required

For its area of interest – farmer-led irrigation development – an IAP would need active involvement of at least the stakeholder groups listed in Table 2. The situation on the ground, and the nature of the specific issues being addressed will influence final choices in this. Choices will be also be different for an IAP operating at county as compared to one at the national level.

Table 2: IAP stakeholder categories

1	SME farmers and SME farmer organisations	Implementation of SWS on the ground depends on them. Their views on what is feasible and relevant are crucial. They are part of any demonstration, testing, or research activity. Organisations can be formal or informal groups, water users associations, cooperatives etc. Special efforts may be needed to identify informal organisations, often very active but less visible.
2	Businesses in the input-output chain	SWS technology supplying companies are important drivers for change, Kenyan as well as Dutch ones. Dealers in other inputs, agro-food processors and traders play important roles too.
3	Private and public service providers	Research and extension organisations provide agricultural and water information and knowledge and support SWS testing and development. Other organisations, including NGOs, provide managerial & business development services.
4	Financing institutions	Banks, SACCOs and microfinance institutions facilitate access to SWS financing required for realising many innovations.
5	Policy and regulatory bodies	Public bodies that define policies, standards and rules. Government actors may need specific attention from IAP facilitators to ensure that they participate as others and not push too much their specific agendas or take over co-ordinating roles.

Private sector parties, including traders, input suppliers, service providers, processors, wholesalers and retailers, can benefit from taking part in the IAP to boost their economic activities and make relevant value chains more profitable.

Stakeholder mapping versus open calls

If you are not sure yet whether you are able to identify all relevant stakeholders to be involved in the IAP and understand their interest you can do a more detailed stakeholder mapping that includes stakeholder identification and analysis. A good tool for this is the preparation of a so-called "stakeholder matrix" (Table 3 below), which include the following elements:

1. **Stakeholder**: name of the stakeholder group (name of organisation or group)
2. **Category**: indicate to what category (see table 2) does the stakeholder belongs?
3. **Role in Farmer-led Irrigation Development**: what is the role of the stakeholder in the development of irrigation (NOT in the project)
4. **Interest and stake**: what would the stakeholder expect to gain from the IAP? What are the specific interest of the stakeholders to engage in the IAP?
5. **Contribution**: what can the stakeholder contribute to the IAP in terms of services, knowledge, funds, other
6. **Blockages**: how could the stakeholder hamper the IAP and its activities?
7. **Engaging**: what would be the strategy of the IAP host organisation to approach the stakeholder and to get buy-in

Other tools include the Stakeholder Interaction Matrix and Actor Linkage Maps. In the references at the end of the chapter you will find references for finding more details on a these tools and how to use them.

You may want to look beyond like-minded organisations and the usual suspects. But do realize that the agenda needs to move forward and should not be delayed by endless discussions with actors unwilling to cooperate. Select the most appropriate actors and secure their active involvement by discussing with them their interest and concerns.

Alternatively you may choose to do open calls for IAP meetings and activities. People will "vote with their feet" and join the IAP and its events if they find them relevant for their work or business. Make sure you do the open calls and announcements as widely as possible so that those who matter will be reached (see Chapter 6 with practical suggestions how to handle communication within and around the platform).

Table 3: Stakeholder matrix

Stakeholder	Stakeholder category	Role in Farmer-led Irrigation Development	Interest and stake	Contribution	Blockages	Engaging Strategy

Representation

Stakeholder groups are often very heterogeneous. There are many banks, traders, even more farmers and farmer groups. They may and will have very different opinions on what is needed and possible. As IAP facilitator you always need to keep this in mind and:

- Never assume the voice of one to be the voice for the whole stakeholder group;
- Consider to involve only a limited number of representatives from the group in the IAP;
- In that case discuss with them if and how they will consult other members of the group. Are they "nominated" by the others? Is involvement in IAP rotating within the group?
- Alternatively, often following open calls, work with those that show real interest and commitment to engage in the irrigation acceleration platform;
- Distinguish in this between IAP activities – which can be as open as possible – and specific IAP meetings or structures organised for agenda setting, planning and M&E.

A second issue to consider from the start is whether people participate as individuals or as representatives of a larger organization. In most cases you would prefer they take part representing their organization. In that case, make sure that his/her involvement is indeed endorsed by the organisation and that he/she feeds back key issues from the IAP.

Always remember: ***The composition of a platform is not static but can change over time.*** New actors will join as they become aware of the IAP and its relevance, or as needs arise. Others may leave. When the platform evolves, refines or redefines its objectives and scope of work, membership may need revisiting too. Individuals and organisations may also change roles, not only as a result of a change in the platform's objectives or strategies, but also as a result of internal reflection and learning.

Formalising the platform?

As mentioned in the previous chapters IAPs can take various forms and shapes, from quite informal to very structured and formalised. Structured, well-regulated and formalised platforms are transparent and better accountable to the members. All members are usually clearly informed about what they can expect to come out if it and what they need to contribute, which enhances their commitment. Formalised platforms may also have higher legitimacy, can be more easily financially supported by multiple sponsors and may thus offer higher chances for sustainability.

But detailed structures, rules and regulations have important disadvantages too. They reduce the flexibility of the platform to adapt when needed and may leave the platform less open for new ideas and members. They tend to create unnecessary bureaucracy and hierarchy, which in turn cause slowness in operation. The bureaucracy also leads to higher costs because of the costs of the many meetings, of the secretariat organising it all, and of time required from members. This is often at the expense of time and money spend on useful activities. If this happens the commitment and enthusiasm of partners will erode rapidly, especially from

partners carrying the extra administrative burden. A formally registered platform becomes an organization in itself that may compete with its members for work and funds.

Forms of formalisation – in order of increasing weight - are formalisation:

- through agreement(s) on ground rules and leading principles formulated and recorded in minutes of meetings;
- through the signing by all participants of a Memorandum of Understanding (MOU) with above rules;
- through agreements of the host organisation for the platform with external actors and donors with details on fund management, communications, reporting;
- through legal registration of the platform as an association, cooperative, or other form of formalisation.

In all cases, the platform needs to have some form of agreement on operational ground rules. These refer to ways how decisions are made, how conflicts are resolved, roles and responsibilities of all involved and how new organisations may or may not enter the platform. As a minimum level of formalisation these rules can be agreed upon and recorded during IAP meetings so that they can be shared both internally and externally. Signing by all members of MoUs with above rules will add weight to them.

In making choices on the way and level of formalisation please consider the following:

- Ensure that main choices are made and supported by the members and the host organisation.
- Initially focus on the minimum rules and procedures needed to start operating so that you have time and energy to work on activities useful for members as soon as possible. The IAP can add and expand the rules as it goes along on a needs-basis.
- When handling and sharing funds rules and mechanisms for this need specific attention and need to be confirmed in writing. They can still focus on the main principles rather than on very detailed procedures "set in stone". The basis of a "good" partnership is mutual trust.
- Formal registration of the platform with its own legal identity can be discussed after it has functioned for some time. This will allow members to make an informed decision.

The need for internal structures?

Irrigation acceleration platforms provide space for learning and sharing but also to initiate joint action and allocate resources. This requires (joint) decision making. Formal or informal, the ***IAP needs to organise itself*** so that decisions can be made, activities chosen are implemented, and results monitored and documented. Issues to be considered:

- How and by whom is day to day coordination done? What are tasks and responsibilities of the IAP facilitator(s) and his/her host institution?.

- Note that this does not have to refer to one person. Certain coordination / facilitation tasks can be delegated, e.g. to members with relevant expertise.
- What are the best ways to organise activities of the platform and involve members in this? Do we need sub-groups or team of members with common (sub-)interest? How can we involve members as much as possible in implementing activities?
- How are main decisions made in the platform? In general members' meetings? By the host and facilitator? Or do we need a smaller body to take decisions, steer the platform, supervise the facilitator as well as the program of activities?
- If we need a supervising body, who should be represented in this? Can we keep it small and flexible yet inclusive enough? What will be its Terms of Reference?
- When and how are individual members and teams accountable to, and report back to the platform?

An example Terms of Reference for an IAP host organisation is added in Annex 1.

The existence of a well-working ***supervising body*** accountable towards platform members (and donors if there are) makes the irrigation acceleration platform more transparent and trustworthy. Membership can be rotated to allow a wider group to be involved in this. But the existence of a supervising body does not by itself guarantee effective governance. You will still need good clarifications of roles and rules of conduct – including agreed mechanisms of decision-making. You will need to know which tasks should be undertaken jointly, and which should be allocated to individual organizations, subgroups or persons based on mandate, expertise and skills. You will also need to know how all these tasks can be coordinated.

If ***sub-groups or team***s are formed team members need to be clearly mandated by their organisations and be given the time and other resources needed to make their contributions to the team at the agreed moments. The difficulties of working in teams should not be underestimated. Many professionals are educated as individuals, few have formal training in teamwork. Facilitating effective teamwork is usually a challenging part of IAP functioning.

Working with power

Where people and organisations come and work together and make decisions aiming at changing how things are being done, power dynamics and structures become important. This refers to power dynamics both internally, among IAP members, and externally of the IAP in its relation with other actors and interests. An IAP facilitator thus looks at members also in terms of their power as by political affiliation, economic status and wealth, cultural position and/or personal characteristics. Analysis of the power dynamics internally and around the issues the platform wants to address can help to identify spaces for negotiation.

In this context a facilitator:

- Needs to be aware that power is expressed in various ways, and power dynamics are often more complex than they appear;

- Creates space and thus empowers less vocal stakeholder groups to take part and express views and priorities, creating a level playing field as much as possible;
- Identifies different types of powers within the IAP and mobilises and uses these to benefit the IAP agenda. The IAP is a larger group of stakeholders and thus develops its own power of influence.

Underestimating power issues will harm the functioning of an IAP. If power issues are not addressed, more influential members will over-dominate. This may lead not only to loss of value inputs from the less vocal but also to a possible side-tracking of the IAP agenda.

The gender challenge

There is general consensus that gender-based constraints must be addressed to increase agricultural productivity and improve food and nutrition security. SWA has mainstreamed gender into its work in order to economically empower SME women farmers through greater access to services, knowledge, finance and business opportunities tailored to their needs. Women play a crucial role in agriculture in Kenya[1] and failure to address the risks and trade-offs of SWS specific to women the project will struggle to reach 20,000 SME farmers effectively and increase their productivity and income by 20%.

Generally the gender discussion has important implication for the design and facilitation of Irrigation Acceleration Platforms. One needs to consider the following three sets of questions and issues in the start-up of the IAP (also see Cecilia Borgia, 2016).

1. Will the work of the platform be based on a ***good understanding of gender dynamics of irrigated agricultural development*** and of the specific constraints and opportunities for men and women? Have issues of men and women farmers been mobilised separately before arriving at proposed solutions? Have skilled facilitators sensitive to gender issues been involved in the process? How can we bring to members' attention main findings of other studies and assessments on gender relevant for the platform? How could this be done and by whom?

   To get a better understanding of gender dynamics of irrigated agricultural development, the SWA project initiated a gender assessment to inform programme design, including the creation of the IAPs. This led to report by Cecilia Borgia cited above. Under further reading one finds a link to a recent publication that has many tools and methods that can be used to deepen gender issues in irrigated agriculture.

2. Can we make sure that the platform takes seriously ***the gender implications of proposed SWS?*** When and how would it consider questions such as whether the SWS would add

[1] Farm Africa, 2012. Kenya Strategic Plan 2014 to 2016, Food and Agricultural Research Management. Nairobi.

Box 6: Priorities of women in assessing irrigation systems and technologies

- Time saving: For example, with a drip irrigation system linked to a water storage tank women would just have to turn on the system while continuing to do other activities. Individual gravity irrigation systems and irrigation with turns from a common system are very time-consuming.
- Labor saving: Bucket irrigation, is particularly tiresome. Irrigating plant by plant with a hose pipe can also be very labor - intensive especially on sloping terrains.
- Flexibility and safety: Having an own water storage tank allows women to irrigate when they can rather when it is their turn. Women, not men, are often expected to handle a mid-night irrigation turn with all its implications.

burden on the work load of women or make their work easier? Box 6 summarises main criteria of women used in assessing relevance of new irrigation solutions as documented in the recent project gender study in Machakos.

3. How can one encourage that ***women are fully part of the platform and take part in all its activities?*** Can women voice their views and participate in IAP decision making to help identify gender-specific challenges and design effective and relevant solutions? Can we organise the sessions in such a way that women can participate equally with men? Local culture may make active participation in discussions and debate sometimes a challenge. Heavy workloads and pressure from husbands may also prevent full participation. The facilitator may need to check how men and women members of a platform work together and communicate. How do they make decisions – as equals, or do the men dominate? What roles do they play? For example, is the chair always a man? Is the secretary a woman?

Overall, an important question an IAP facilitator could ask at this stage is one of self-assessment: to what extent can I ensure a ***gender-aware facilitation*** of the platform? Is there a need to build my capacities in this and/or can I mobilize and rely on others to assist me? If others, where can I find gender - agricultural related expertise?

Methods and tools

Stakeholder Linkages Matrix: http://www.bibalex.org/Search4Dev/files/448360/488787.pdf.
Actor Linkage Maps: http://www.sswm.info/content/venn-diagrams and http://www.mspguide.org/tool/netmapping.
Collection of tools and methods to facilitate multi-stakeholder interaction and collaboration: http://www.mspguide.org/sites/default/files/case/msp_guide-2016-digital.pdf: pages 134-150.

Further reading

Borgia C, 2016. Gender Mainstreaming Strategy - Smart Water for Agriculture Program**:** Interim Report. Meta-Meta Foundation, the Netherlands.

FAO, 2012. Passport to mainstreaming gender in water programmes: Key questions for interventions in the agricultural sector.

ILRI , Innovation Platform practice briefs, 2015, https://cgspace.cgiar.org/handle/10568/33667.

Jost, C, N. Ferdous and T. D. Spicer, 2014. Gender and Inclusion Toolbox: Participatory Research in Climate Change and Agriculture. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), CARE International and the World Agroforestry Centre (ICRAF). Copenhagen, Denmark.

MSP Guide: http://www.mspguide.org/sites/default/files/case/msp_guide-2016-digital.pdf.

https://cgspace.cgiar.org/bitstream/handle/10568/45955/CCAFS_Gender_Toolbox.pdf?sequence=7.

4. Setting-up and running an IAP

What are the different steps in setting-up and running an IAP?

How do we best organize the initiation, planning, running and M&E of IAPs?

How do we ensure the platform continues to play a role post-project?

Introduction

This chapter gives practical suggestions for setting-up and running an IAP. We have organized these suggestions according to six "steps". These steps are of course a simplification of reality and aimed only to help readers organise the information. The six steps distinguished are:

- ***Preparation***: Before interacting with stakeholders clarify own understanding of IAP, build own capacity if needed, analyse the stakeholder landscape.
- ***Initiation***: Interact with stakeholders to raise the issue of IAP, mobilise views and suggestions and arrive at joint agreement on IAP and it broad areas of work
- ***Planning***: Agree which issues to address first with what kind of activities, decide who leads and does what and prepare relevant detailed plans and budgets
- ***Joint action***: Facilitate implementation of diversity of actions the IAP involving changing sets of stakeholders and share experiences, results and findings through IAP
- ***Monitoring, evaluation and learning***: Keeping track of and assessing implementation of activities and their results as well as the functioning of the platform and its facilitation.
- ***Sustaining the IAP***: Planning and preparing for the longer term functioning of the IAP.

For an immediate overview, Box 7 summarises the main issues to be considered in designing and running an IAP across these steps.

Box 7: Summary of main issues in designing an effective IAP

Objectives

- What do you and stakeholders want to achieve through the IAP? Is this clear enough for all?
- What are the outcomes that would meet expectations of all involved?
- What type of activities would the IAP undertake or support to realise this?

Members

- Which organizations or people are interested in accelerating SWA development and/or have the mandate and resources to work on this?
- Who should be included in the partnership?
- What are expected roles of members and how do we organise or formalise membership, if at all?

Organisation and governance

- What exactly is the role of the IAP facilitator and host? Can tasks be shared with IAP members?
- How and by whom are important decisions made in the platform?
- What structures are needed within the IAP for implementation of activities and for governance?
- What measures will be taken if host or members do not live up to expectations?

Funding

- What resources (human, financial, material) are necessary to implement proposed activities?
- How can resources be mobilised, from members, sponsors, donors and others?
- What needs to be done to mobilise the resources?

Reflection and Learning

- How is the monitoring and evaluation of activities and their results organised?
- How does the IAP monitor and evaluate the functioning of the platform itself and its host?
- How will findings of M&E be shared and used to improve the work and the IAP itself?

Preparation

This involves the work that one needs to do before actually starting the interaction with potential IAP members. What needs to be done at this stage includes:

- Clarify internally the understanding of IAP and its purpose. It may be useful to summarise the understanding in a one pager that can be shared with others as starting point for further discussions on this.
- Check whether one knows enough of existing networking and platforms created around irrigated agriculture and if not collect further information.
- Review own role in the IAP to be. Consider capacities required for this and look for opportunities for further capacity building if and when needed.
- Organize initial and basic formalities for your work: within your organization and with external parties such as donors if there are.

The second major area of work at this stage is the review of the stakeholder landscape around farmer-led irrigated agriculture. Who are these stakeholders, what do they do and what role do they play, and what are their interest? Chapter 3 gave all the relevant considerations in identifying and selecting stakeholders for IAP membership and tools to analyse the stakeholder landscape. Important questions to be considered at this stage:

- Who has rights or interests in irrigated agriculture?
- What are their roles, mandate and scope?
- What are their interests in SWS development, what would they gain engaging in a platform?
- What are their specific competences (skills, knowledge)?
- What is their relative power to influence the situation?
- How do they currently interact with each other? Are there issues of conflicts or completion among them?

Not all questions need to be answered in full detail during the initial assessment. And some of the tools can also be used for reflection and monitoring purposes.

Stakeholder analysis has been an important part of the initial rapid assessments done in all SWA target counties in 2016. The relevant reports document stakeholders identified and their initial concerns and views on SWA, their role to address these and the possible platform. This provides a good starting point but the analysis needs to expanded, improved and updated before the IAP starts and even while it functions.

Initiating the IAP

This is the phase in which one starts reaching out to others based on the analysis of the stakeholder landscape. Through mail and Email communications, through visits to relevant offices and business and, finally through some form of joint meeting the idea of the IAP and its rationale needs to be discussed and interest and suggestions for its agenda collected. A one page summary of the main ideas for the IAP prepared earlier is useful now. In the end it has to be a collective agreement of a larger group to create the IAP and outline its area of work and possible activities.

To create a common understanding and commitment on what the IAP is about and could/should be doing it useful to a ***visioning exercise*** during one of the first meetings ((http://www.sswm.info/content/visioning). This basically ask participants to reflect on:

- How they see the current situation around development and promotion of SWS in the county, strengths – weaknesses; followed by:
- How they would like this situation to be.

This refection often involves work in small groups on the first question, some sharing followed by a second round of small group work with subsequent sharing on the second question. From the last round of sharing the need or not for an IAP and areas it should work on would become clear.

It is essential at this stage to realise buy-in of members and a feeling of co-ownership of the platform among the members. You may need to invest some time in developing relationships with key actors. More importantly make sure the IAP agenda and initial planning really responds to members' interests and suggestions. Creating an open atmosphere in first meetings with ample time for all to contribute will also help (See Chapter 6 for suggestions how to have interactive meetings). Sharing activities and task with members – possibly with related resources, if there are - further strengthens buy-in and co-ownership.

Existing social and institutional conflicts, power mechanisms and dynamics between stakeholders can become major constraints for the functioning of the IAP. It is important to be aware of these as early as possible and try to handle from the beginning, e.g. through individual visits to the respective offices.

The first meeting or workshop that confirms the creation of the IAP also needs to discuss the basic governance and decision making mechanisms and structures. Please, consult Chapter 3 for issues that need to be considered in this.

Planning

Planning here refers to working out into full detail work that is to be done. It is good to fine-tune and confirm IAP planning in a platform meeting but a lot can and need to be prepared in advance, by stakeholders coordinating or involved in a specific set of activities, by the IAP facilitator, by the SWA project– all in various combinations.

Depending on the level of detail arrived at the time of agreeing to form the IAP in terms of its activities, planning may have two stages:

- ***General planning:*** Looking at constraints and opportunities for SWS promotion and use choose a number of concrete and tangible issues on which there is energy and enthusiasm among members, define relevant activities for each, and agree who would be responsible for making these happen. As much as possible stakeholders would be encouraged to come forward with things they can and want to do, alone or – preferably – with others. Recommended tools: action planning, ranking of priorities (www.ramsar.org/pdf/outreach_actionplanning_guide.pdf). Of course, such planning is not cast in iron and should be revisited and adapted when needed, based on emerging insights and experiences.
- ***Operational planning***: Detailed plans are made for each activity that is part of the overall plan, preferably by those directly involved. This would cover the usual components, including details on timing, participants, resources and materials needed and budget.

Apart from more or less regular platform meetings and sharing events IAPs can include in their planning all activities that promote the development and upscaling of SWS options as found relevant in the local context. Chapter 5, discusses in more detail some of the most likely activity areas of IAPs and gives guidelines that would help to organize and facilitate them.

Resources mobilisation and management needs specific attention at this stage. In discussing resources one need to distinguish the minimum (financial and human) resources to facilitate the IAP to function as a platform and the resources for specific sets of activities.

The IAP can only function in the long run if costs are shared. This can generally be realized more easily for costs of activities as compared to costs of IAP facilitation. Cost sharing can be realized more easily if activities directly benefit the work and agenda of members. The level of cost sharing is thus a clear indication of the success of the IAP to address those interests.

Options for covering IAP costs that could be considered:

- Payments, attendance or entry "fees", for joining IAP activities.
- Co-investment of members in piloting or other IAP activities directly benefitting their business.

- Sponsorship of activities by larger companies (e.g. those with interests related to water)
- Institutional support from the side of IAP hosting organization to support functioning of the IAP facilitator.
- County government support in kind or cash.
- SWA project funds.
- Fund raising with donors.

Remember that the time members spend on IAP meetings and governance is an important investment by them, a "costs" item. The demand for their time for meetings and activities needs to be in balance with the return they get in terms of new ideas, knowledge, business contacts etc.

Joint action

Ideas and plans for change need to be acted on. Often MSPs fail or lead to disillusionment because the plans generated through the workshops and planning events don't end up being acted on and put into practice, sometimes because they are simply too ambitious. Taking action requires a different level of commitment and resources than the planning phase. Specific, often different, management and organizational arrangements may be required. The better defined and elaborated IAP planning has been, the more likely it will receive adequate follow-up.

For a new partnership such as an Irrigation Acceleration Platform it is important to have ***successful concrete activities at a relatively early stage.*** This will motivate members and increase their commitment to the IAP and its work. Early initial activities can be relatively simple, less demanding in terms of preparation and resources and, e.g., make use of concrete opportunities in the county or within the SWA project.

Building on the momentum of first successful events, ***the IAP activities can be expanded*** and more demanding actions can be included. The key challenge is to keep all IAP partners engaged. To this end it helps to consider the following:

- Partners become less engaged if the earlier activities did not meet their expectations. This thus needs to be monitored.
- Engagement can become low if not the right people have been chosen to represent an organization. The IAP would, e.g., not be useful in the long run for staff too "high" in an organization if activities are mostly at field level.
- Regular communication on IAP progress and activities (See communication methods and tools listed in Chapter 6) by the IAP facilitator will strengthen engagements of members.
- Focused efforts may be needed to encourage continued engagement of those who participate and speak out less easily in IAP meetings and events, e.g. (women) farmers.

IAP plans should not be acted upon with eyes closed. Learning from implementation of activities, plans need to be revisited and adjusted making use of M&E mechanisms and information as discussed in the following chapter.

Monitoring, evaluation and learning

Monitoring, evaluation and learning in the platform is important at different levels:

- Focused on the implementation of the activities undertaken through the platform;
- The results and findings of activities implemented and lessons learnt; and
- The functioning of the IAP itself.

The design and use of ***M&E of implementation of SWS activities*** will be tailored to each set of activities, their objectives and main actors involved, and the level of funding provided through the platform. It will always cover how and by and with whom activities were done, how resources mobilized were used, and the direct outcome. The lead organization for each activity is responsible for this level of M&E following formats as agreed within the IAP.

The ***M&E and learning on the wider results and findings from the SWS activities*** is the responsibility of the IAP and its facilitator, with technical support from the SWA project team. Ultimately it focuses on the question whether or not and how current constraints to wide-scale spread of SWS options have been addressed sustainably, uptake and use of SWS options accelerated, income and livelihoods of farmers improved and viable SWS businesses realised. This should apply the principle of what is called ***reflexive monitoring***, a monitoring that encourages all involved to learn about the work, the context it is embedded in, and the results as it unfolds and modify approaches if and when needed. Information generated by the project during the baseline studies can be used as a benchmark to analyse progress made.

The ***monitoring, evaluation and learning of the development and functioning of the MSP irrigation platform*** itself is a third level of M&E that is important in realising a well-performing platform. Addressing members' frustrations as early as possible allows the platform to remain healthy. The IAP host and facilitator have responsibility for this part of the M&E. Central dimensions with key questions on the M&E of IAP functioning include:

- *Effectiveness of the IAP*: Is the IAP facilitating activities that really support (coordination of) SWS development, promotion and use? Is the uptake and use of SWS accelerating because of these activities? Why or why not? What needs to be done to improve?
- *Sharing, linkages and learning*: Does the IAP facilitate access to relevant insights and contacts and does it allow sharing of own experiences? Which activities are most effective in this, which less? What needs to be done to improve?
- *Governance and decision making*: To what extent do members feel they have a say in what the IAP does? How well is the IAP steering group functioning? To what extent is there

Box 8: Format outline for Email based assessment of IAP functioning[1]

Platform effectiveness

Has the IAP been effective in developing/promoting SWS options? Is spread of SWS accelerating?

Scoring scale				
1 ☹	2	3	4	5 ☺

What are your reasons for giving the above score? What is your evidence to support it?

What concrete suggestion(s) do you have for doing better in the future?

Sharing, linkages and learning

How well is the IAP helping to access and share information, linkages?

Scoring scale				
1 ☹	2	3	4	5 ☺

What are your reasons for giving the above score? What is your evidence to support it?

What concrete suggestion(s) do you have for doing better in the future?

Governance and decision making

To what extent is IAP governance transparent involving members in decision making?

Scoring scale				
1 ☹	2	3	4	5 ☺

What are your reasons for giving the above score? What is your evidence to support it?

What concrete suggestion(s) do you have for doing better in the future?

IAP hosting and facilitation

How well is the IAP being facilitated and hosted?

Scoring scale				
1 ☹	2	3	4	5 ☺

What are your reasons for giving the above score? What is your evidence to support it?

What concrete suggestion(s) do you have for doing better in the future?

transparency in the platform on decisions made and resources used? How to improve?
- *IAP hosting and facilitation*: How well is the IAP facilitation done? What works well and what does not? How to improve? (See Table 1 with performance areas for IAP facilitation).

It is important to put this part of the M&E on the agenda of the IAP, discuss its importance with members and involve them in selecting key questions and related indicators. While regular annual reports would provide some of the basic data on actual functioning of the IAP over the years, the views of members on above questions are of particular importance. These can be generated and discussed jointly through IAP meetings/workshops (see Chapter 6 for ways to organise open and interactive meetings) or via E-mail consultation. For the latter a simple feedback form along the lines of the example of Box 8 often works well. If needed questions and scoring options can be made more detailed. The results of Email based M&E need of course to be shared and discussed with members, e.g. during a next full member workshop or a steering committee meeting so that improvements can be made jointly.

At certain, longer-term, intervals an IAP member or external person can be asked to review IAP functioning, have interviews with selected IAP members, and present findings and suggestions to the platform.

Sustaining the IAP

While almost all consulted during the rapid assessments organized by the SWA project by mid-2016 agreed that improved linkages and coordination among stakeholders in farmer-led irrigation would be very important, such coordination had not happened well enough in most cases before the arrival of the project. So what happens after the project ends? It is important to look into this issue from the start. Is there a need to continue the IAP in some form beyond the project. If so, how are we going to make this happen?

Apart from putting this issues on the agenda of the IAP early on, a number of actions will help to increase changes for continued IAP function in the longer term, a/o:

- Maximize use of own, locally available, resources (human, funds) in the running of IAP and its activities in order to decrease dependency on project funds.
- Embed the IAP as much as possible within existing structures or organizations with an own interest and mandate directly related to the facilitation of stakeholder interaction.
- Ensure relevant government recognition and policy support.
- Ultimately a successful functioning of the IAP (relevant activities, platform owned by members) will be an important factor convincing stakeholders to make an effort to continue interaction and collaboration after the project ends.

Methods and tools

Visioning as a planning tool: http://www.sswm.info/content/visioning

Action planning: www.ramsar.org/pdf/outreach_actionplanning_guide.pdf

Further reading

Reflexive monitoring:
http://www.falw.vu.nl/en/Images/Reflexive_monitoring_in_Action_B_van_Mierlo_and_B_Regeer_2010_tcm246-399363.pdf

5. IAP action areas: facilitating developing, testing and scaling of SWS

How do we identify relevant Smart Water Solutions and innovations?

What are strategic options to realize promising SWS?

What is participatory research / joint experimentation and how can the IAP facilitate this?

What are essential elements of SWS scaling?

Shortlisting relevant SWS

A central question on the IAP agenda, particularly at the county level, will be which Smart Water Solutions (SWS) make sense and would be feasible and profitable in the context of the county and its sub-counties. The IAP can be the place where IAP members and its stakeholders (farmers!) interact around this question, brainstorm, make choices and decide to act. Smart Water Solutions can refer to various technologies for accessing, lifting, transporting and applying water to the field. They can also include new financing schemes to support SME farmer investment in irrigation or more effective marketing systems for irrigated crops.

In finding solutions that would work in a county or sub-county a good start is the report of the Rapid Assessments done by the SWA team during the inception phase. This report

- Maps out sub-areas – "clusters" –with substantial farmer-led irrigation development;
- Provides an initial analysis of the potential of more than 30 SWS options for each cluster (see example in Table 4 below);
- Reviews functioning of financial service provision and business presence & performance around irrigation development.

Note that interesting SWS options can be found from innovative farmers and local people too! In Kenya farmers have been successful in using locally made windmills to extract ground water, in Laikipia a local entrepreneur is making and selling his own version of a hydram, another water lifting device, while some farmers find new ways of reducing leakages from their water pans. The IAP will be open for such options and encourage members to search for relevant ones.

It makes good sense to present and discuss main findings from the Rapid Assessment during one of the first IAP gatherings asking to comment and improve on the analysis and to propose where relevant additional SWS to be considered for the county. It is an important role of the IAP to continue to analyse and reflect on which SWS really make sense – from a farmer-user perspective, from a business perspective – and use the learning based on what is done in the field to this end. The analysis of any SWS should bring together the demand side – a good

understand of the problem faced by farmers and the context in which they operate – and a supply side – the knowledge and information available from research or extension service provides as well as the business offer and it capacity to deliver.

Table 4: Initial analysis of potential SWS in one cluster in Meru

No in SWS list		High poten-tial	If high: estimated no. of farmers	Low potential	Un-known at this stage	Reason
Water source						
1	Manual drilling			✓		Only few farmers use well. Most rely on surface water, rivers in this region are permanent.
2-3	Improved ponds	✓	<500			Some farmers have unlined ponds for water storage; others advise that storage ponds on their farms will increase irrigated land taking care of water rationing.
Pumps						
4-5	Low-lift pumps			✓		Farmers are already able to get water to their farms by gravity through water supply projects.
6	Manual suction pumps			✓		There are existing water projects that supply water to the farms thus labour intensive pumps will not be acceptable
7	Solar suction pumps			✓		Most farmers are far away from rivers on hilly lands so the solar pump will not be appropriate (high total head)
8	Micro engine suction pumps				✓	Possible to irrigate fields further away from the river.
9	Intermediate depth pumps				✓	Only in areas with groundwater deeper than 7m depth.
Application						
10	Elevated storage				✓	Possible to combine with drip or solar irrigation.
11-12	Piped conveyance			✓		Already in place
13-14	Spray / sprinkler	✓	<300			This makes sense in rainy season when water is fine. Some farmers already using sprinklers
15-17	Drip				✓	It is expensive for SME farmers to install and maintain; option to prevent erosion?
Field management						
18-25	Improved water-holding	✓	<500			This saves on water and improves soil fertility
23-26	Improved soil fertility				✓	No soil fertility questions were asked
27-28	Improved land preparation				✓	
Out-of-the-box farm upgrades						
29-30	Greenhouses			✓		The huge investment in greenhouses is not worth it here given current marketing
31	Improved crop varieties			✓		No reasonable market for high quality produce
32-37	Tools for knowledge gaps: specify				✓	Further studies for applicability of these tools required.

Further SWS demand and supply analysis

An IAP can initiate activities to better understand either the demand side or the supply side of SWS options before decisions are made to promote / upscale them.

Demand side analysis includes a more detailed analysis of (certain aspects) of the actual situation farmers face in handling irrigated agriculture, their specific constraints and the causes and what this implies for their *demand priorities* on SWS. Such studies can include collection of quantitative data, or review of existing ones, such as around water and land, quality and availability, but also crops, yields, costs, market prices. Gender dynamics often need to be taken into account too. In other words, such studies could cover all 8 drivers to innovation in farmer-led irrigation development presented in Box 1.

In most cases a deeper understanding of the issues at hand can be obtained by using methods and tools from the PLA (Participatory Learning and Action) family of tools. This approach helps farmers to analyse their own situation and develop a common perspective on natural resource management and agriculture at village level. PLA has a set of participatory and largely visual techniques for supporting farmers to assess group and community resources, identify and prioritise problems and appraise strategies for solving these. Most relevant ones in the context of understanding different aspects of farmer-led irrigation are listed in Box 9.

Box 9: PLA methods and tools relevant for analysing farmer-led irrigation

- Resource Map	- Historical timeline
- Social Map	- Income and Expenditure Matrix
- Wealth Ranking on economic differentiation	- Daily Activity profile
- Venn Diagram on Institutions	- Focus group discussion
- Transect walk	- Semi Structured Interview
- Seasonal Calendar	- Matrix / pairwise ranking

In practice using a combination of tools in a coordinated way will give the best results. Tools can be adapted to fit own specific purposes. They are never ends in themselves.

The IAP could also facilitate further study of the ***SWS supply side*** if important questions remain on the supply of selected SWS options. This can take the form of ***targeted feasibility studies*** to analyse more systematically whether there is a solid business case to make for the supply (and maintenance and support) of the chosen SWS. Typical areas of a feasibility study include (http://www.investopedia.com/terms/f/feasibility-study.asp#ixzz4PicKIuJ5):

- ***Market feasibility***: describes the current and future market potential, competition, sales estimations and prospective users.
- ***Technical feasibility***: lays out details on how a technology or service will be delivered, which includes supply, business location, water resources needed, materials and labour.

- ***Financial feasibility***: a projection of the amount of funding or start-up capital needed, what sources of capital can and will be used, and what kind of return can be expected on the investment.
- ***Organizational feasibility****:* determines whether there is sufficient management expertise, organizational competence, and resources to successfully launch the business case.

SWS joint experimentation and innovation development

In cases where the SWS option has not been tried out elsewhere, may need to be adapted to the local conditions, or has benefits and costs that are not yet fully understood – in other words cannot be considered fully "mature" in the local context - the best strategy would be *joint SWS innovation development* to arrive at an (adapted?) SWS that is proven to work in real life conditions. This is also known as Participatory Innovation Development (PID). The project runs an innovation fund that under very specific conditions can co-finance SWS innovation development. For more mature SWS *testing* directly with farmers is recommended to check their feasibility in the field and identify potential bottlenecks in practice that can still be addressed.

Testing and refining technical, organizational or institutional SWS options are a key function of IAPs. In many cases promising SWS must be tested and/or adapted to make sure they work and are beneficial. The use and spread of any SWS practice or technology depends on the trade-offs between its costs and benefits, its positive and negative features. In many efforts to promote new technologies the negative features that feel as costs to farmers are underestimated or not known enough.

Farmers may test new water lifting or water management technologies methods. Traders may try new market arrangements and a bank a new credit system. An input supplier may market-test a new type of product. The IAP stimulates these experiments, brings interested parties together, may provide some support and ensures good monitoring so that all can learn.

Table 5: The differences between an Experimentation, Testing, Incubation, Innovation and Piloting

Experiment	An activity to systematically try out and study a new idea, practice, technology or system.
Testing	Check the feasibility with farmers and other stakeholder in the field and identify potential bottlenecks in practice that can still be addressed.
Incubation	Provides organisations or enterprises with the nurturing environment needed to develop and grow their businesses, offering intensive business support, access to finance and experts to make businesses to grow.

Innovation development	Creating, testing, adapting, and putting into use new ideas, practices, technologies or systems in economically and socially significant ways.
Piloting	Small-scale trial initiated to check the conditions and operational details before full scale launch.

As mentioned joint experimentation or innovation development of promising SWS is a recommended strategy when questions remain on their feasibility in practice (testing) or when it still requires fine tuning and modifications, including adaptation to local conditions. Planning and implementation is along the same lines in both cases. This work is only meaningful if it is done really jointly. I.e. if it is done as an equal partnership between relevant farmers, men and women, one or more SWS providers and, in case of more demanding SWS, knowledge institutes or facilitating organisations Van Veldhuizen et al (1997: pages 143 - 163) and Bellon (2001) can be consulted for more detailed guidelines.

Important issues to consider in the ***planning and design*** of joint innovation development include the following:

- The testing or innovation team: Which organisations are needed for the chosen SWS and which are interested? What is the role of each? Who coordinates? Which farmers need to be part of this and how can they be involvement meaningfully?
- Resources: Starting point of reference are the initiative and investments from the direct stakeholders: technology providers, farmers using the innovation, others where needed. The IAP can consider complementing these for SWS options that are given priority by the platform to cover e.g. costs of joint planning of the experiments or tests, specific M&E and data collection costs, or insurance / covering of risk of failure for farmers.
- Location: The cluster descriptions in the Rapid Assessment reports provide important information where specific SWS could make sense. Further site selection within those clusters will depend on interest of farmers, the requirements of the technology, accessibility, and nearness to one of the team members to allow regular M&E and follow-up.
- Design of the experiments: Often the most controversial parts of joint experiments or tests. How do we set these up so that we get meaningful answers for the questions we have? Formulating these questions is an important first step in finding the best design. Designs can be straightforward in simple tests: Providing an X number of farmers with the SWS with monitoring of key parameters that will determine its feasibility. Where questions remain on how the SWS works, where and how it needs to be modified, more complex experimental designs and M&E will need to be considered. In all cases an adequate number of farmers needs to be involved (replications) with a long-enough time frame to

be able to draw conclusions. What works well for one farmer may not be feasible for others, given their resources, limiting factors and personal preferences.

Effective implementation of a joint experiment hinges on a good implementation plan that lists who does what by when. This plan will only work when prepared in open consultation with all involved, is realistic given resources available and capacities of people for the various tasks, and if reviewed by the team and adapted regularly. A central part of the plan will be referring to the monitoring and evaluation and related information and data collection. Above two publications have detailed suggestions on M&E of joint experiments. Generally remember the following golden M&E rules:

- Keep in mind the main questions the tests or experiments need to answer; if you have not formulated these clearly yet, do it now.
- Keep it simple, focus on collection of essential data and information only.
- Decentralise to the extent possible.
- People are generally interested in monitoring and data collection if they fully understand why and how it is to be done, if they see the benefits of the information collected.

When reaching the stage of ***analysis and sharing of findings*** of the experiments or tests it is important to maintain the collaborative character of this work. When all people involved, including the participating farmers, provide their knowledge and experience on the SWS experiment as input into the analysis well-founded conclusions can be drawn. The methods for the actual analysis will follow directly from the test design and the M&E plan. Sharing is an important obligation if the activity has been initiated through the IAP and, particularly, when supported under the IAP. Sharing of findings can be done in many different ways. One can circulate the report on the experiments or tests, organise field days where tests have been done, present findings to an IAP meeting or event, and or use mass media or ICT based options.

The SWA Innovation fund has been created to support stakeholders to engage in experimentation and innovation development. The fund provides support to experiments that bear risks, and of which the outcomes are relatively uncertain. The experiments however should be relevant to the programme.

Scaling of SWS

When all information suggests that a relevant SWS is mature – it has proven to work under similar conditions elsewhere in Kenya or its relevance and feasibility have been confirmed through any of the above activities -, *large scale promotion* can be initiated to further its realisation and spread. A scaling strategy needs to consider at least the following components:

- Relevant information and knowledge has to reach targeted farmers and support agents (PR, communication) and, where needed, relevant skills developed (technical training).

- The SWS supply chain needs to be well organised including the organisation of maintenance. This is true for SWS technologies but also for other SWS options: what is needed to make it work and how can this been provided?
- Depending on the SWS option the financing of the investment needs to be facilitated. Link with credit and other financial service providers.
- And, if needed, organisational and institutional development issues need to be addressed. For example, farmers may need to be organised in groups to jointly make use of a SWS. Or new institutional arrangements may be needed for improved access to technologies or finance, and marketing.

In very specific cases , SWS scaling by the private sector can be supported by the project's SWS investment fund. Businesses with a strong business scaling case can receive a certain amount of co-funding.

The SWA project support the incubation of promising business ideas by providing organisations or enterprises with the nurturing environment needed to develop and grow their businesses, offering intensive business support, access to finance and experts to make businesses to grow. The investment fund provides opportunities for co-investment for business ideas which are sufficiently solid and will most likely contribute to the impact targets of the SWA programme. This means that the business plan includes clear targets how many SME-farmers will benefit from the business proposition, which will be monitored and included as beneficiary by the programme. The business plan should clearly show which costs will be borne by the programme and which by the company, the programme maximally contributing 50% of the proposed budget.

Finding the best strategy

In practice, above strategies can be combined or done one after the other: Testing can become part of a wider step-wise scaling strategy. Joint SWS innovation development may need to combined with some PRA type of analysis to get farmers fully involved in the design process.

It's not always needed that that a joint decision is made in the IAP regarding which SWS to promote and which of the above strategies to be pursued. The platform brings stakeholders together where they interact and can agree to work together if needed and follow-up any of the SWS options discussed. When they use own resources the decision to act is theirs. Only in case SWA-IAP resources are requested to support the work prioritization and decision making involves the platform. In all cases, feedback to the IAP on the results of the SWS development or promotion activities should become standard practice.

Methods and tools

PLA Methods and tools: http://www.crs.org/sites/default/files/tools-research/rapid-rural-appraisal-and-participatory-rural-appraisal.pdf

Further reading

Bellon, M.R. 2001. Participatory Research Methods for Technology Evaluation: A Manual for Scientists Working with Farmers. CIMMYT, Mexico. (http://www.ico.org/projects/cabi_cdrom/PDFFiles/FPR%20Bellon%20Cymmit%20prm_all.pdf).

Davis RF, Harris GH, Roberts PM & MacDonald GE. 2012. Designing Research and Demonstration Tests for Farmers' Fields. (http://extension.uga.edu/publications/files/pdf/B%201177_3.PDF).

Feasibility Study Definition | Investopedia http://www.investopedia.com/terms/f/feasibility-study.asp#ixzz4PicKIuJ5

Participatory Rural Appraisal

http://betterevaluation.org/approach/PRA

http://www.fao.org/docrep/003/x5996e/x5996e06.htm#TopOfPage

Schut, M., L. Klerkx and C. Leeuwis, 2015. Rapid Appraisal of Agricultural Innovation Systems (RAAIS). A toolkit for integrated analysis of complex agricultural problems and innovation capacity in agrifood systems. International Institute of Tropical Agriculture (IITA) and Wageningen University, November 2015, pp.140. https://humidtropics.cgiar.org/wp-content/uploads/downloads/2016/01/RAAIS-Toolkit.pdf

Veldhuizen LR van, Waters-Bayer A & Zeeuw H de. 1997. Developing technologies with farmers: A trainer's guide for participatory learning. ZED Books, London, UK (http://www.prolinnova.net/sites/default/files/documents/resources/training-mats/developing_technology_with_farmers.pdf).

6. Skills for handling IAPs

What are important skills required for facilitating IAPs?

How to realise effective and interactive meetings involving all?

What are effective ways for communication within the platform and beyond?

Facilitating interactive and inclusive meetings

Poorly managed and facilitated meetings and events are often reasons why people stop joining platforms. The challenge for the IAP facilitator is to remain focused on the process of facilitation and mediating between members while assuming as neutral a role as possible. Only then can stakeholders come together and effectively discuss issues, find common ground and agree on joint action.

The ***ground rules for effective facilitation*** of meetings include at least the following (See also http://seedsforchange.org.uk/tools.pdf):

- Involve partners in ***setting the agenda***: consult them on the agenda beforehand and again at the beginning of the meeting. Make also sure you give enough time and importance to the agenda item "Any other business" for others to bring in points they feel are important.

- Use ***participatory methods*** where possible, particularly in meetings of groups of more than 10 people. There are good resource books on these as mentioned under further reading. Most commonly used methods and tools used to make meetings more interactive are:

    - *Buzz or neighbourhood groups*: Two to three participants sitting close to each other are asked to discuss an issue/question first for 5-10 minutes after which the groups will one by one share their views. This makes the plenary discussion more involving and interactive, wakes everybody-up. This is particularly useful if the group size is more than 10 and after longer plenary presentations. It is most effective if each small team shares one main point at a time: After the first team as mentioned one point move to the next team. In a second round teams that still have further points have a chance to raise these.
    - *Small group discussions:* This divides a large group of participants into smaller working groups to discuss in more detail one or several questions and report back the findings. This allows many participants to contribute, and breaks the flow of tiring plenary sessions. The size of the small group will be determined by what the groups needs to

discuss and do, the total size of the larger group and possibly logistical issues (space). Ideally, to work effectively, groups should not be larger than 5 to 6 people. In certain cases one would prefer to have single stakeholder groups, whereas for other issues it is essential to have well balanced, mixed groups. Make sure that the main questions and assignment for the group work is very clear and makes sense in the context of the meeting

- *Brainstorming*: This is a discussion method to address an issue by gathering a list of ideas spontaneously contributed by participants. It encourages people to come up with thoughts and ideas that can, at first, seem a bit crazy. Some of these become solutions to a problem, while others just spark even further ideas. Ground rules are: Never criticize ideas immediately, ideas are no one's property but "owned" by the group, no idea is kept from the group – the more the better -, be brief in formulations, and members absorb ideas of others and build on them (http://www.tricider.com/Brainstorming-Rules).
- *Visualization*: Issues raised are not just spoken about or noted down by individuals in a note book, but are "put up" for all to see, comment on, work with, manage and control. This very much helps people to remain focused, allow everyone to follow the main points and refer to them in discussions later. Flipcharts or cards are often used for this, but in case not available typing key points in a projected PPT or word file would also work.

- Permit and ***create an informal atmosphere***, allow a certain amount of jokes and laughing. Try and prevent over-use of protocol, cut out formal addresses such as "Mr Chairman" whenever possible and generally resist the temptation to use formal language.

For certain meetings it may be useful to obtain the services of an experienced, external, facilitator, someone who understands the issues at stake, but is not directly involved in the IAP and its activities. This can be particularly useful at critical planning moments or when conflicts need to be resolved.

The effectivity of a facilitator further depends on his/her ***personal communication skills***. It is worthwhile to invest in strengthening these. They include a/o:

- *Listening*: Ability to listen with open mind, to distinguish between facts and opinions.
- *Questioning and probing*: Ability to ask clear and open questions that help further clarify issues or statements made and prevent the use of so-called leading questions.
- *Summarizing*: Ability to pick-up key points from a long answer or parts of a discussion, and formulate these correctly and briefly so that it facilitates the analysis and encourages participants to further contribute.
- *Non-verbal communication*: Awareness of the importance of body language and other forms of non-verbal communication and the ability to create personal positive dynamics.

Handling communication within the platform

Regular communication within the platform – with the facilitator and among members - is critically important, it is the blood-line of the IAP. Its importance cannot be stressed too much. Platform members need to be kept up-to-date so that they feel involved, and they need to know what other members do and have learned. This is a challenge when implementation of activities involves many individual and organizations as would be the case under the IAP.

Apart from using face to face meetings, fairs, fields or other events for sharing information and experiences there are of course an ever growing list of web or mobile phone based communication tools and media. One could for example consider the options listed below (see also table 6). Communication facilities, methods and tools at the national level need to be checked for the usefulness of linking them with the same at the county level.

- *A moderated Email* group allowing sharing of information from the facilitator to members through one address but also sharing among members. Email groups can be simply set up as free Google or Yahoo groups. Platforms such as D-group also provide such services in a more streamlined manner but this comes at a price. Most social media platforms such as Facebook also offer the possibility to create groups for internal communication.
- *Quarterly IAP updates*: It is relatively easy to plan for the IAP facilitator to send regularly an update to all members of what is going on within the IAP, including other relevant SWS information. Above Email group can be used to this end.
- *Web-site based sharing platform:* Websites create great opportunities for sharing information about IAP members, events, relevant data, etc. Setting this-up and managing it requires a concerted effort and continued attention over the years.
- *Dropbox or other web-based document* sharing facilities are much less demanding in their use, can be accessed easily by all members, but have limited possibilities for interactivity, posting of news etc.
- *Whatsapp* group. No costs platform for simple and focused updates from, to and by everyone
- *Skype or other web-based free "telephone" systems*: Very useful for communication within teams allowing for planning and other meetings on-line, provided people have good internet access.

IAP members need to confirm what would work locally. Is connectivity generally adequate enough to support the web-based solutions? Do farmers and other community-based members have access to the E-based tools? It is always useful to start with looking what already exists, what tools and media are used by members, are already operational in the county. Perhaps these can be used IAP communications, if needed after some modifications? Rather than setting-up an own web-site for sharing information, background and experiences on SWS work by IAP members, e.g., an existing web-site of one of the members can perhaps be used for this.

Table 6: Options for handling communication within the platform

Tool or method	Its use	Notes
A moderated Email group Google, Yahoo, D-group	Sharing information by facilitators & among members	Relatively simple to set up and run. Exclusive.
County IAP group social media platform (Facebook)	Informal sharing of news, interesting facts	Publically accessible and/or as closed groups
Quarterly IAP newsletter	Regular updates of developments and events	Easy to do, making use of e-mail group
Website	Sharing information on IAP events, members' documents and data	Structured access. Requires considerable effort
Drop-box, web-based document sharing facility	Easy and cheap access to IAP key information and documents	Static archive. Depends on connectivity
WhatsApp group	Fats sharing of focussed messages	Easy access and use by all members
Skype conferences	Coordination, focussed information sharing, planning	Replacing small meetings. Depends on connectivity

Documentation for learning

For a platform to progress and modify its approach if and when needed, it must become a learning entity which draws lessons from its experiences in order to identify and understand good practices. These good practices will improve the way the platform works. They can be directly applied in local contexts, institutionalized, and/or shared and replicated at other levels, even nationally or internationally. However, if no action is taken to analyse, consolidate and share the knowledge gained, institutional memory will not be transmitted, the same mistakes will be repeated, the success of our experiences will not be known and opportunities for improved practices will be lost. An organization can turn knowledge into action through capitalization cum documentation of experiences and sharing of these.

Thus, the documentation of, and reflection on, experiences is important for the platform and the partners involved to improve current and future practice.

How does capitalisation work? It requires a concerted effort involving information and communication management, and includes the following stages:

- *Identification*: What are innovative practices and information and knowledge in the area of SWA development relevant for analysing and sharing more widely?

- *Documentation*: Generate, collect and compile information to describe and illustrate the practices / experiences identified using a variety of sources (farmers' organisations, libraries, research centres, etc.).
- *Transformation* (packaging) of the practices, selecting most appropriate forms from a wide range of options depending on target audience and use including: brochures, posters, manuals, songs, radio programmes, and video.
- *Dissemination*: Practices and experiences are exchanged and disseminated through channels most suited in the local context. Ensure that farmers, women and men producers, are reached too.
- *Appropriation*: Making sure that the newly acquired knowledge is into practice, by adopting, adapting and/or enriching it, at least by the IAP and its members.

Methods and tools

Facilitation of meetings: http://seedsforchange.org.uk/tools.pdf

Brainstorming: http://www.tricider.com/Brainstorming-Rules

Further reading

Cambers R, 2002. Participatory Workshops: A Sourcebook of 21 sets of ideas and activities. Taylor &Amp; Francis Ltd.

Dave, 2009. The Art of Facilitation: The Essentials for Leading Great Meetings and Creating Group Synergy (Revised Edition), Random House, Australia

Capitalization: http://www.fao.org/docrep/017/ap784e/ap784e.pdf

Gonsalves, J.; R. Armonia (eds). 2010. Write-shops: A Tool for Packaging and Sharing Field-based Experiences (A Guide to Organizing Workshops). International Institute of Rural Reconstruction, International Potato Center - Users' Perspective with Agricultural Research and Development. Manila, Philippines. http://www.mamud.com/Docs/Writeshops_3_Guidelines.pdf

ANNEXES

Annex 1. Terms of Reference for the IAP Facilitation in Kenya

SNV Kenya is implementing the Smart Water for Agriculture (SWA) program to develop and promote farmer-led and market-based smart water solutions (SWS) in Kenya. The smart water solutions that are promoted concern market-based options, both products and services, that will save water and energy and serve sustainable resource use, but also in many cases reduce labour and inputs, mitigate weather related risks, promotes off-season production opportunities, which makes them extra attractive.

One of the program outcomes is to set up functioning Irrigation Acceleration Platforms (IAPs) in the targeted Counties of the SWA program. These platforms are required based on the notion that individuals alone will not be able to change the sector for the better within a short period of time. The IAPs will therefore, facilitate multi-stakeholder collaboration, where supply and demand side meet and interact, where innovation will be supported to more adequately satisfy the needs of SME farmers, and where private sector, farming communities and actors of the enabling environment engage.

The IAPs will be hosted by selected institutions at the County level, so as to strengthen the stakeholder interaction and also to sustain the platforms beyond the programme period.

In this regard, SNV has shortlisted *XYZ Organization* as the IAP host in *XYZ* County. This terms of reference provides the Scope of Work for the IAP Host, the tasks and the deliverables expected from the IAP Host organisation.

Scope of Work

The scope of the IAP is to stimulate innovation in and adoption of SWS by connecting stakeholders and providing them with a mechanism to jointly assess and address the challenges and experiment with different options related to small and medium scale entrepreneurial irrigated agriculture development in a systemic way. The IAP will provide an entry point for assessment, development and promotion of current and potential SWS, taking local demand requirements (farmer needs) and business considerations of SWS-suppliers and others into account.

Tasks

In consultation with SNV, the IAP host will undertake the following activities in the County:

1. Identify and mobilize multiple stakeholders in irrigated agriculture in the County
2. Undertake atleast one multi-stakeholder meeting per quarter – to facilitate interactions amongst different IAP stakeholders in the County;
3. Connect stakeholders to different opportunities in the County with respect to irrigated agriculture, broker deals and document the same
4. With different IAP stakeholders, jointly assess and prioritize challenges and opportunities related to water productivity; and find best strategies to address these
5. Facilitate stakeholders plan and implement activities to promote and experiment with SWS in a systematic way including working with the technology suppliers

6. Mobilise resources and effective support services around promising options, including financial services and linkages to companies investing in SWA-services and products
7. Profile and promote promising Smart Water Solutions; bring in suppliers and contribute to demand creation
8. Allow sharing and accessing information, knowledge experiences related to (promotion of) Smart Water Solutions.

Deliverables

Between *1st of January, 2017* and *30th December, 2017,* the IAP Host is expected to produce the following deliverables according to the tasks and scope of work described above:

- Facilitating meetings and activities of IAP
- Report and documentation of all stakeholder meetings conducted and communicate the same with all stakeholders
- Continuous updation of stakeholder database as per SNV guidelines
- Report on the new innovations identified (in technologies, finance, process, program etc) in the County
- Continuous monitoring and evaluation of activities conducted through the IAP host
- Financial report indicating expenditure by agreed budget line

Annex 2: Case study ABACO: A local innovation platform to facilitate conservation agriculture development

Background

Conservation agriculture (CA) is a form of agriculture with limited tillage, a lot of intercropping, direct sowing and cover cropping. In many part of West Africa introduction and development of effective CA is a complex process involving farmers, livestock keepers, equipment and input suppliers, and policy makers ate different levels. In Burkina Faso a research team working under the ABACO project facilitated the development of three village level innovation platforms (IPs) to foster participatory research and learning on CA involving all above stakeholders. The IPs were to have 2 objectives:

the co-design and generation of knowledge and best practices on CA adapted to local conditions by proposing, testing and assessing cropping systems based on CA principles,

the exploration of renewed rules governing stakeholders' access to land and crop residues to address the main challenge of competition for crop residues impeding the feasibility of CA.

The three IPs focused on knowledge generation and sharing to find out how relevant and suitable CA was in the local context and what would be needed to make it work in practice.

Platform development

The IPs were initiated by the research team following a three step approach:

Diagnosis of existing forms of organization, whether endogenous or exogenous: This was done through semi-structured interviews with leaders of existing farmers' organizations, one or two local government representatives, and traditional leaders covering issues such as identity of the organizations, their internal structure and governance, and its current functioning.

The team concluded that diverse forms of organization co-existed in the three villages such as self-help and service provision groups, as well as traditional organizations grouping e.g. male household heads The more endogenous organizations were experiencing some difficulties in mobilizing members due to a rise in individualism. Exogenous organizations included village development councils (VDC) and chambers of agriculture, structured on paper but not very active. Farmer organizations started by value chain promotion schemes also seemed weak except in one village. Village (multi-stakeholder) Coordination Committees (VCC) and farmer field schools (FFS) initiated by research and development (R&D) projects functioned as fora for interaction between farmers, the research teams which launched them and public extension services, in order to learn new technologies.

Development of a model and structure for the IP: The team concluded from the above that there is convergence of interest from organisations interviewed around learning about new agricultural systems and management of shared resources and related conflicts, and promoting access to inputs and markets with the expected roles of the IPs around co-design of CA and the exploration of renewed rules governing stakeholders' access to land and crop residues. It also noted the relatively weak position of local organizations and the lack of stakeholder interaction.

Given the complexity of CA and the central objectives, the team proposed for an IP structure consisting of a **technical team**, composed of farmers from existing R&D efforts such as FFS, government agriculture extension services, and the research team and **the forum**, facilitating interactions of all stakeholders, farmers, technical experts, private sector actors, traditional authorities on a voluntary basis. The technical team was meant to generate knowledge and best practices on CA by proposing, testing and assessing cropping systems based on CA principles. The interactions between actors in the forum aimed to identify and engage organizational changes needed to facilitate access to crop residues and land, and also to share with others insights of characteristics and performance of CA-systems under development. The forum also aimed to lobby political decision makers at the village and communal level to support experimentation of CA.

The facilitators of the IPs were the elected local leaders of the existing functioning R&D activities such as FFS. Generally the IPs thus proposed were to have an informal, flexible structure as the team learned from problems elsewhere with more formal modes of organisation.

Validation by stakeholders of the IP model and planning of activities: Four one-day multi-stakeholder workshops were organized to present and discuss issues around development of CA, the IP model above, and, if agreed, to plan further activities. The workshops involved farmer group representatives, government extension staff, retailers and local manufactures, government agents and one or two traditional leaders.

The workshops created and confirmed the idea of a village IP as a space for coming together and exchanging information and experiences about CA. The proposed structure was generally accepted. The workshops played an important role for stakeholders to express doubts and concerns about the CA approach. These were taken seriously as areas of attention for the IP. Stakeholders also had a major input in defining the IP action planning bringing in experiences from other projects.

Platform activities and functioning

What did the platform end up doing? Farmer and staff training in all aspects of CA formed an important set of activities. Given the knowledge agenda field trials and related M&E were important too in some cases involving competitions. Farmer to farmer learning and study

visits complemented this set of activities. Results of above and all relevant issues related to CA were discussed during a number Forum meetings, including an annual assessment and learning meeting. The Forum also initiated work on a land charter that was to formulate roles and responsibilities of all stakeholders in managing land and crop residues.

Most of the resources for the functioning of the IPs and their activities were provided by the project / research team.

Lessons learnt

The platforms provided an important mechanism for farmers to interact with researchers and co-determine the CA development and experimentation. There is ample evidence of choices made in the CA experimentation triggered by farmers.

In two of the three villages the IPs helped to create new linkages with new and among stakeholders such as input suppliers, council, village chief, credit bank and artisans. This allowed to address challenges related to crop residue management and land access at a higher level than the field or the farm.

As in most cases facilitation played a key role in the positive outcomes of IPs. The facilitators were the leaders of the existing R&D mechanisms such as farmer field schools, were known and respected in the villages, had basic facilitation skills, and had strong and wide personal networks that allowed the IPs to gain quick legitimacy. The close relationship between the facilitator and the scientist in charge of monitoring also helped a lot.

By the end of the above cycle many issues around CA development locally were still to be addressed. There probably would be questions whether the IPS would be able to continue beyond the project intervention. To avoid the risk of IPs stagnating, it seems important to identify IP members likely to assume leadership with interest in continuing the IPs and help them to mobilise resources and strengthen capacities.

Annex 3: Case study PROLINNOVA Kenya: A national platform to promote farmer innovation

Background

PROLINNOVA–Kenya was initiated after several Kenyans involved in agricultural research and development (ARD) met at the Innovation Africa Symposium in Uganda in November 2006. Returning home they brought together about 25 people from different state and non-state ARD organisations at a meeting in Nairobi convened by the NGO PELUM Kenya. They discussed and agreed on the need to join hands in order to create more space and attention in the country to farmer innovation approaches under the umbrella of the international PROLINNOVA[2] network. The group set up a taskforce[3] from among those present to coordinate the forming of PROLINNOVA–Kenya (PK) and asked the NGO SACRED Africa to host the secretariat on an interim basis.

The platform launched

SACRED Africa made available part-time a staff member as interim coordinator, who organised the first national PROLINNOVA workshop in Thika in July 2007 with a small amount of co-funding from the PROLINNOVA International Secretariat. The workshop attracted more than 50 people from different organisations in Kenya and over 40 expressed interest to be members of the platform to be. The workshop agreed on an overall action plan and planned for fund raising. In designing the platform they were inspired by the 4 key dimensions of MSP development of Prolinnova as in the box below:

- **Building the partnership**: Start with looking into what exists, choose partners strategically, grow gradually, match partners' interests with the common agenda
- **Governance:** Ensure clear and democratic governance; define roles well including specialist input, backstopping and facilitation; share ownership among partners
- **Operation and facilitation**: Jointly plan, monitor and evaluate activities; ensure partners' commitment through successful starter actions; create a culture of equality; strive for openness and transparency; break barriers of competition; maximise use of partners' abilities for cost effectiveness; ensure effective communication at all levels
- **Learning**: Make partnership functioning an explicit part of the agenda; document experiences of CP functioning; learn how to collaborate as partners by reflecting on experiences

[2]PROLINNOVA: Promoting Local Innovation

[3] The taskforce comprised the NGOs SACRED, PELUM–Kenya, SACDEP, World Neighbors, and RODI Kenya, ETC East Africa, Jomo Kenyatta University of Agriculture and Technology (JKUAT) and Kenyan Agricultural Research Institute.

A small grant from PROLINNOVA International was used for a first staff training in Participatory Innovation Development (PID). Having the basic design of the platform in place (members interested, an active facilitator and task force to oversee all this) PK was also able to successfully apply for further funding available through PROLINNOVA international to do action research on alternative innovation funding mechanism called "Local Innovation Support Fund" (LISF). This allowed 6 platform organisations to work together and with local CBOs on concrete activities. Main activities of the platform from 2008 to 2012 were part of this project and consisted of action research on the ground with and related capacity building and national level workshop and learning events about these activities,. It also allowed PK to have a national coordinator, still part-time - with a focus on handling the funded project. Efforts to attract funding for other activities of the PK plan were slow in yielding results initially.

Strengthened platform with less organizations involved

From 2008 onwards the platform strengthened its organisation. The interim task force was converted to become the PK national steering committee, meeting often at least 6 times a year to manage the LISF project and guide the general development of the platform. The hosting of the secretariat moved first to the NGO KENDAT and later to the government research organisation KARI with the entire financial management handled by the NGO World Neighbours. In this period, the enthusiasm of the larger group that had been involved in the 2007 workshop was waning, as the coordinator was not able to adequately share information with so many organisations. The number of active members of the SC also reduced.

Throughout 2009 and 2010, the LISF piloting and its related activities in capacity strengthening, joint learning and networking remained the main anchor of work for PK. But the platform, its profile, agenda and work, did attract increasing attention from other parties, such as from the Rockefeller Foundation (RF) for video coverage of LISF work, and by organisers and participants of a so-called Pop Tech Lab in Nairobi. Farmer innovators linked to PK were increasingly asked to become resource persons or exhibitors at local and national events such as organised by the National Council of Science and Technology. The increased exposure also helped PK member KARI to get involved in the EU-funded JOLISAA research project that included Kenyan agricultural innovation case studies. The new JOLISAA Kenya assistant coordinator at KARI also served as a coordinator of PK up to mid-2013

Learning and adjusting

In November 2011, the 10 most active platform members met to review the state of the partnership based on an analysis by an external consultant arriving at recommendations such

i) institutionalising the network though registering it as a legal entity so that it can accept funds more easily; ii) drawing up a constitution; iii) strengthening the secretariat; iv) actively recruiting new members; v) engaging in joint learning; vi) carrying out a strategic planning exercise; and vii) giving greater emphasis to mobilising resources for the platform.

This gave the platform a new momentum and helped it to be part of a next round of funding by the Rockefeller Foundation through Prolinnova international. In 2012-13, it also gave the platform the confidence to become coordinating organiser of what became known as the "Week on Agricultural Innovation in Africa" that included several international events such as the JOLISAA Workshop on Agricultural Innovation Systems in Africa and the East African Farmer Innovation Fair (EAFIF). This high profile and demanding set of activities gave PK the opportunity to bring several organisations back on board and to attract some new organisations.

PK had an "advantage" for building national ownership of the multi-stakeholder platform in that, from the day it started, it never had any core funding and was always aware that it had to generate its own funds if it wanted to realise its plans. The funds that could be generated, either by PK on its own or through PROLINNOVA International allowed some communication and networking functions of the platform to be continued, both within Kenya and in interaction with other PROLINNOVA Country countries The projects, training events and workshops supported by this funding also provided opportunities for various member organisations to collaborate in the PK activities. Interested PK organisations not involved in the funded activities and those further away from Nairobi, however, felt it more challenging to remain involved in the platform.

Following the strategic planning exercise PK engaged the services of a public secretary to reserve the name and register the organization and in 2014 PK was registered as a company limited by guarantee, as registration as an NGO was found to be complex and time consuming. Registration as company by guarantee would allow for PK to continue to operate as a multi-stakeholder platform – with no restrictions. By the end of 2016, experience showed that the registration had not helped but even became an impediment in fund raising. Members' involvement also decreased and the platform may need to consider de-registration.

The activities of the platform at the national level have led to interesting spinoffs. Local multi-stakeholder Steering Committees in the areas where the LISF was piloted have grown and organise PROLINNOVA type of activities. Farmer innovators from Kenya who joined EAFIF initiated an own national farmer innovators network and already have organised two local innovation fairs in Machakos and in Nyando.

Lessons learned

PK as a multi-stakeholder platform has had its up and downs but remains quite active because several key members realise the advantages of working together toward common objectives and have made efforts to generate resources for this.

The joint coordination by an NGO and a research organisation has opened the doors for linkages in both the state and non-state sector and has given the network fairly wide recognition within the country.

The presence of all key platform members in or close to Nairobi enables PL and its SC to have regular meetings with no or little costs allowing platform coordination and governance to continue in times of scarcity of external funds.

It proved very hard to keep the larger group of organizations interested in the PK agenda involved in the platform. Activities and internal and external communications focused very much on the funded projects and thus often reached only those involved in these projects.

Finally, in the context of the global PROLINNOVA partnership, lessons learnt in Kenya have contributed to key lessons on MSP facilitation at national level across PROLINNOVA countries as in the box below.

- **Moving from collaboration for project implementation to longer-term partnership** for pursuing the PROLINNOVA agenda; how to realise this, what are incentives, choices to be made and partner selection
- **Registration and formalisation***:* While most CPs do not opt for formal registration and prefer to maintain the open character of the network, several CPs have been discussing the option seriously and one CP decided to seek registration as a company with limited liability
- **Membership:** The open character of the network leads to lack of clarity as to who is a CP member and who is not; there is a need to look beyond the few organisations who are members of the CP to a wider group of individuals/organisations interested in and working on relevant issues
- **Importance of partners' collaboration on the ground***:* Being involved in work on the ground such as the action research on LISFs strengthens the CPs and the partners' commitment
- **Capacity to facilitate the platform***:* Building the capacity of the CP coordinator/facilitator (also when replaced by a new person), back-up support by the NSC and by the director of the host NGO, and all CP members learning about CP functioning.

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