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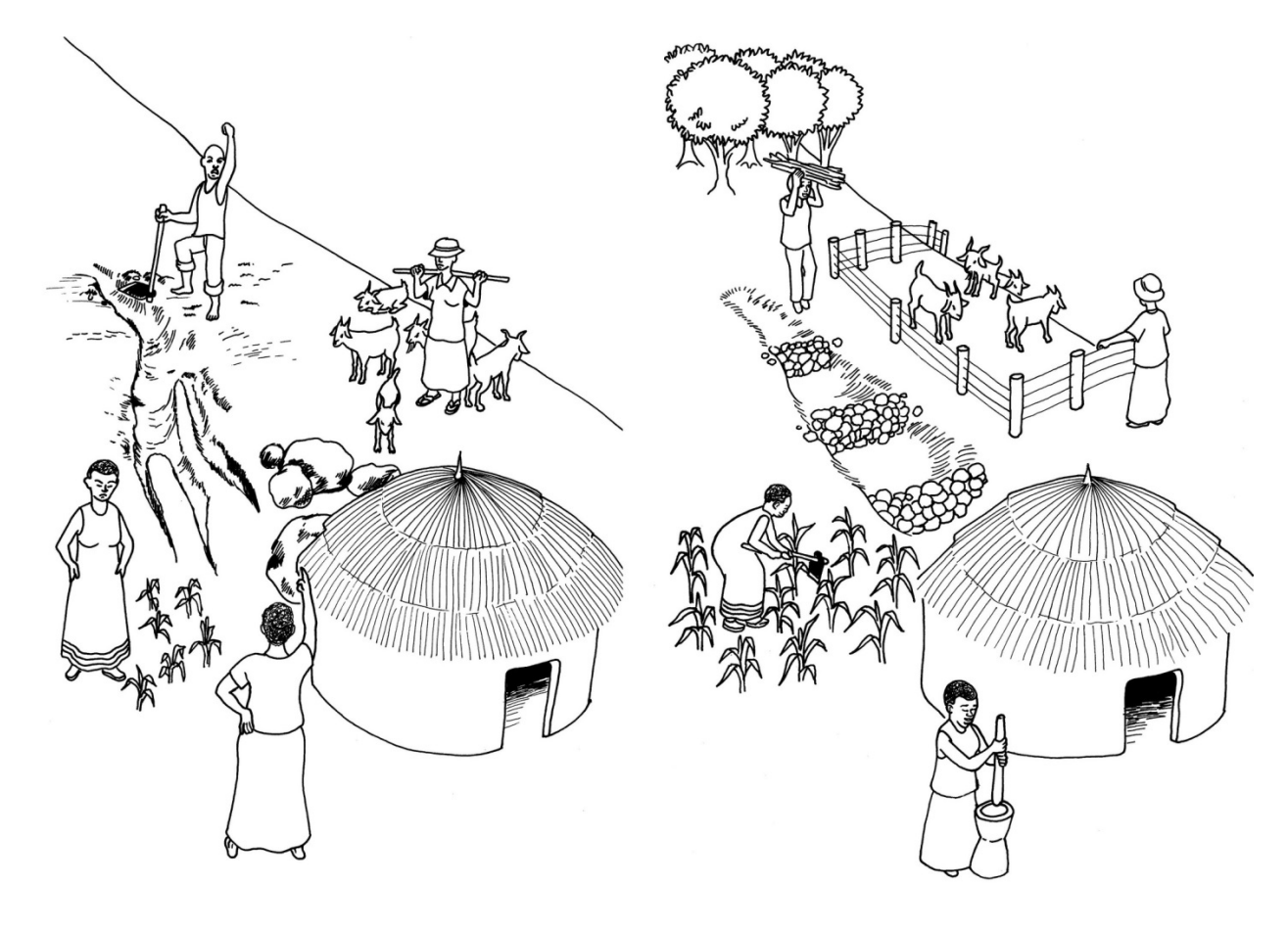
RESEARCH PROGRAM ON Dryland Systems



Implementing Innovation Platforms: A guideline for Dryland Systems Research

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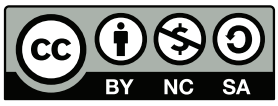

RESEARCH PROGRAM ON
Dryland Systems

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Motivation for this guideline

This guideline is collaborative output from the CGIAR Research Program Dryland Systems, Eastern and Southern Africa. We believe that innovation platforms (IPs) are a powerful vehicle for implementing and coordinating systems research and for sharing lessons with the wider research for development community. The guideline aims at handy information for scientists of different disciplines to understand the IP concept, its advantages and challenges, important principles for implementing and coordinating systems research in the drylands. It provides valuable information for research, development and other actors.


Photo: CIAT/Stevie Mann

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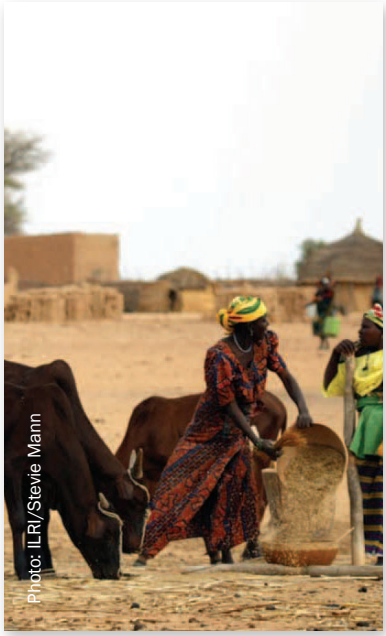
Photo: ILRI/Stevie Mann

1. Why we work through innovation platforms?

1.1 *What is an agricultural innovation platform?*

An agricultural innovation platform (IP) is a forum where a group of actors with different backgrounds and interests, including women and men farmers, extension, research, private sector, local and or national decision-makers come together to diagnose challenges and opportunities, and to find solutions in a particular situation (Homann-Kee Tui et al., 2013).

Together they identify leverage points for technical, institutional and organizational innovations and find ways to achieve their goals. IPs may facilitate knowledge exchange, initiate collective action in planning and implementation, and coordinate activities of their various members (Victor et al., 2013). Ideally they engage actors at multiple scales and catchments areas and evolve into larger networks for learning and change (Tucker et al., 2013). IPs can be informal or forged into more formalized structures, such as Public Private Partnerships, with the ultimate goal of becoming efficient, self-sustained entities.

Box 1. Principles of IPs

- IPs are inclusive and follow participatory processes;
- There is a common vision and an agreed set of operating modalities;
- Members are committed and have adequate incentives to participate;
- Diversity of members capacities, resources, skills, knowledge, interests and needs are acknowledged;
- There is an efficient and effective process of communication, knowledge and information sharing;
- There is joint identification of challenges/opportunities, and options to address them though collective action;
- There is an appreciation for learning by doing and monitoring and evaluation.
- IPs bring out multiple benefits for the various actors, ultimately for smallholder women and men farmers.
- IPs help to make technologies available for specific contexts and farm types, thus support adaptation processes and technology adoption.

IPs draw their resourcefulness, energy and commitment from mutual benefits. These can include shared information, new ideas and procedures, complementary partnerships, ways to generate or develop technologies that are useful within a particular context, material benefits from the innovations, as well as new structures for scaling up and out.


Photo: Bioversity International

1.2 *Why innovation platforms for Dryland Systems research*

The challenges for smallholder women and men farmer livelihoods are multi-faceted and need comprehensive solutions, especially in the drylands of Sub-Saharan Africa where agriculture plays an important role for individual farming families and economic development of rural communities. Living in marginal environments with frequent threats from climate variability and often depending on fragile soils, farmers are facing unprecedented difficulties to make their living, as their natural resource base is also dwindling, with superimposed pressure by climate change. At the same time, they often fail to capitalize on promising opportunities, e.g. to produce for the emerging urban markets with an increasing demand for quality nutritious foods such as pulses and meat. The interplay between external drivers, such as ecological factors, access to information and markets, political decisions and power balances, as well as the internal conditions, like social and gender relations, distribution of knowledge and wealth can influence the ability of farmers to manage their resources and to respond to opportunities in a sustainable way. These factors can hinder farmers from moving up a development pathway, such that they remain stuck in poverty.

Box 2. IPs for Dryland systems research

- IPs provide a framework to bring about change in dryland farming systems, taking complexity and context specify into account, often under high risk
- They create mechanisms and processes that nurture innovation within those dryland contexts
- Procedures are purposely open, to allow flexible responses to emerging priorities and needs
- Research is demand driven, accommodating research issues emerging from the IPs
- Better understanding under which conditions what type of technologies can work
- Links to partners are important for issues that are beyond the scope of research
- Documentation, M&E are crucial to learn from the complex processes and handling risk
- IPs build capacity of their members to deal with complex situations that typically affect drylands.


Photo: Bioversity B. Vinceti

To address such complex situations research for development started to promote IPs as one approach to find innovative solutions. It is based on the recognition that as the challenges and the social, economic and environmental dimensions grow researchers need to engage more actively with a wider spectrum of actors. From a dryland systems perspective special consideration is on generating appropriate innovations (technical, social, institutional) for environments that are often marginal and remote, where farmers are often vulnerable and operate under high risk, and enable farmers to be proactive in order to capture existing opportunities.

1.3 *What is special about the innovation platform approach for dryland systems research?*

For a long time technology transfer and best practice approaches were linear in nature, with researchers developing technologies which extension staff disseminating them to women and men farmers (Swaans et al., 2014). These approaches may have involved stakeholders for certain operations, e.g. delivery of inputs, or new market links, and they may have been effective in improving household production and food security, but fell short in capacitating often vulnerable smallholder farmers to improve their own livelihoods, e.g. by engaging in markets as opportunity for social and economic change. They did also not sufficiently address the contextual conditions which often hinder farmers to make best use of their limited resources.

Box 3. Benefits for researchers working in dryland systems and engaging in IPs

- Greater relevance of research: IPs bring better problem diagnosis, identification of gaps and entry points for interventions, towards more insightful and appropriate innovation under the challenging conditions of drylands farming.
- Demand driven innovation: At IPs various degrees of complexity are possible. Synergies from site level systems analyses help guiding the design of research activities that respond to the critical bottlenecks in dryland systems.
- Creating an enabling context: IPs will help identify critical constraints and source investment in dryland commodities beyond farm scale, critical to make on farm solutions work, ultimately fostering adoption of relevant technologies.
- Strategic partnerships: IPs assists in the creation of symbiotic links between researchers, public sector and private sector entities.
- Enhancing systems capacity to adapt and innovate: IPs contribute to enhance competences in existing institutional networks. They contribute to bring content to national networks.

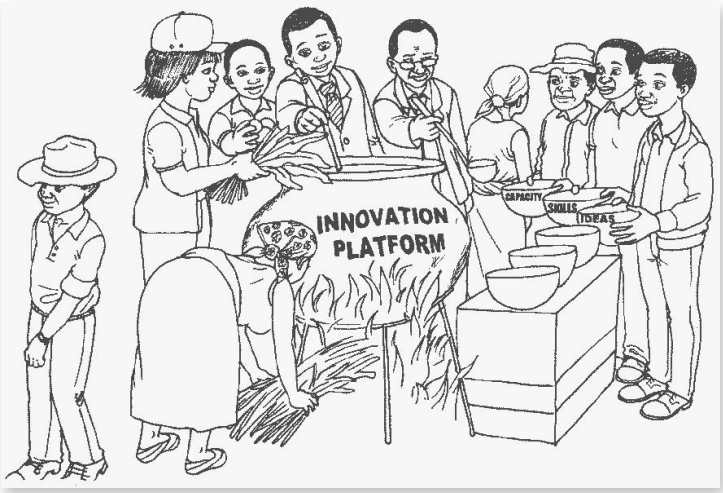

Figure 1. Innovation Platforms as a space for nurturing innovations and capacity (Boorgaard et al., 2013).

System changes towards more sustainable futures for both women and men farmers require deeper changes in structures across scales and time, along with better integration and synergies among technical, institutional and policy options. Sometimes deliberate system transformations must be considered (Lachman, 2013). Innovation systems research advocates users and suppliers of knowledge to engage in niche innovations, to bring about new configurations and adjust the socio-ecological regimes (Geels and Schot, 2007). Such niche innovations are spaces where small networks of actors generate technical, institutional and organizational novelties on the basis of shared expectations and visions. Learning processes link the multiple dimensions, and the momentum for change increases. IPs can provide these niche spaces where creativity and learning can be encouraged, leverage points identified that can change the systems dynamics, and packages with new solutions tested out in an environment that is less risky. They help developing appropriate interventions, with due consideration to technical, social, economic and environmental factors, and appropriate to the end users, resulting in higher levels of adoption.

Figure 1 illustrates an IP as a space where innovations and capacity can be nurtured, given the right preconditions (context) and ingredients (activities) (Boogaard, et al., 2013). Actors with different skills engage and motivate collective action to address complex challenges and develop solutions with multiple benefits, ultimately for smallholder farmers.

1.4 *How can we develop effective innovation platforms*

Innovation platforms themselves draw on complex social processes; they build on a good mix of scientific, as well as technical, managerial and entrepreneurial expertise, skillful facilitation, mentoring and capacity development. As a vehicle for innovation in agriculture they involve more than science and development, and also organizational factors. Their multi-disciplinarily and cross scale coordination links the actors and uses monitoring and evaluation purposefully to feed the learning process and responsiveness to actor's needs. Sound establishment and management of IP processes is critical when a multiplicity of actors, with diverse objectives and expectations get involved.

Roles and priorities in an IP can change in the process, from (1) engaging actors to (2) planning and assessing, and (3) management and sustainability.

Research organizations often play a strong role in the beginning, by facilitating and informing the process. As time goes on, they provide technical back-stopping, as local actors and private sector take over ownership and capture the opportunities.

Box 4. IPs as vehicle for change

- Through their different functions IPs can contribute to make change processes more effective:
- 1. Integrate systems analysis and improvement: put the various pieces of systems analysis and improvement back together in a holistic view that considers the system as a whole and defines research priorities and networks in this process (research into use).
- 2. Implement learning and change: make desirable change happen, by generating innovations e.g. new prototypes, promising value chains, or for broader sustainability transitions within a certain socio-ecological environment (tangible outputs)
- 3. Coordinate: align individual members, their disciplines and activities, accountability, towards a common goal (management)

Beyond just understanding how innovation systems work, researchers should use that understanding to give direction, implement change, inform assessment of impacts, reduce learning curves, generate more efficient processes, instill commitment, maintain momentum.

Research, being part of an IP, makes important contributions to the IP, as it also benefits from engaging in the IP. Research strengthens IPs by (Figure 2):

- informing the process through knowledge and technologies,
- involving the IP members in knowledge management and action research,
- creating an enabling environment for innovation.

Through an IP researchers can engage with relevant actors and conduct appropriate, client-oriented research that is more likely to be adopted. In doing so, IPs help to re-define the role, scope and approaches of research in smallholder farming systems.

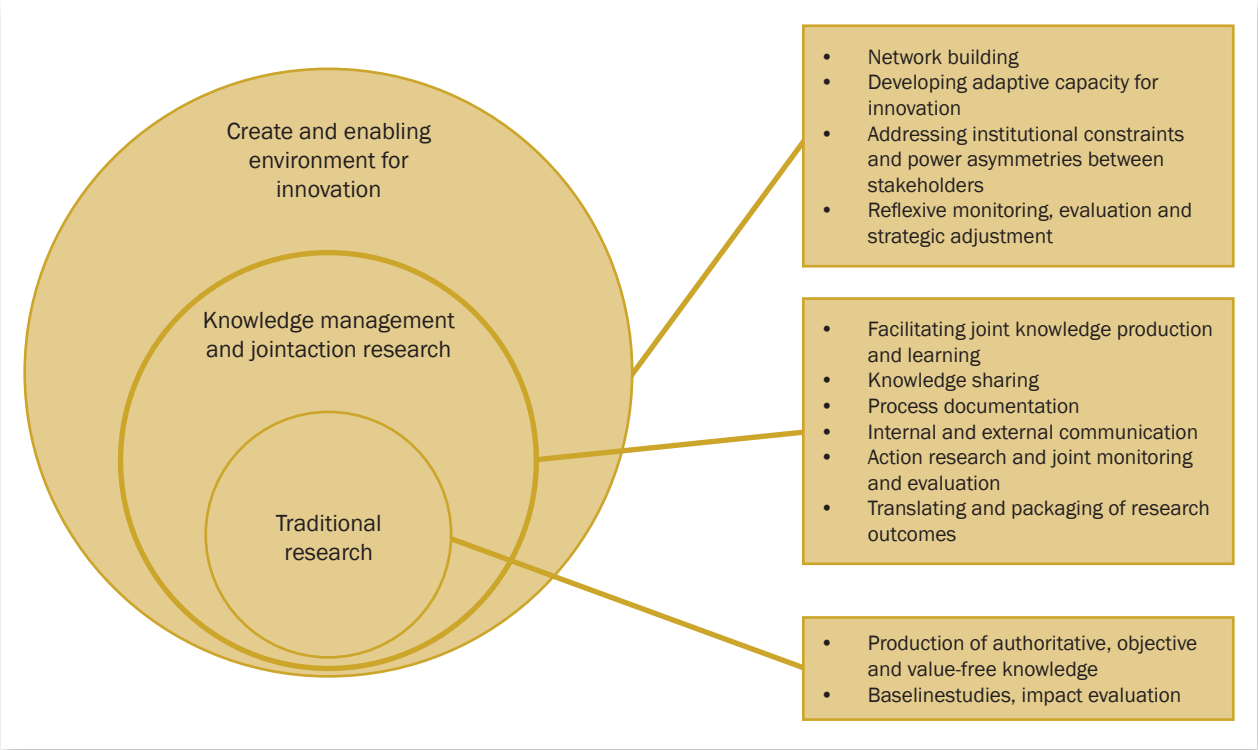

Figure 2. Three ways that research can contribute to IPs (Lema and Schut., 2013).

1.5 *How can we use innovation platforms for scaling out*

Once successful innovations are identified, (e.g. those able to address some of the identified constraints) the IP provides a mechanism for sharing experience widely and getting the innovations adapted within their respective contexts. However, constraints often exist at larger scale, making local innovations ineffectual; hence coordination mechanisms at a higher level are required. These issues involve interactions and trade-offs at different scales and administrative boundaries.

Therefore, as part of longer-term iterative processes, guided by continued review and feedback, innovations need to be adjusted. Through learning at various level IPs, actors gain capacities to use and modify the innovations to their needs and changing contexts. Better understanding the needs of end-users of technologies, and the conditions under which the relevant technologies can work, greater rewards can be expected that will encourage the adoption. The following structures can be used to catalyze development at scale, for sustainability strategies. IP structures for scaling out should involve:

- Matching IPs with or feed into existing structures. Working through government structures and capacitating government to take over, for sustainability. IPs themselves can be institutionalized for extension, knowledge brokerage, and capacity development.
- Multi-scale (vertical links) help communities to engage in innovation processes and to provide feedback from local levels. Engaging policy makers helps them comprehend potentials, constraints and needed policy support for scaling out. Direct involvement can alert policy makers at the right time and might be more persuasive than the usual policy briefs.
- Large networks of actors (horizontal links) help to enable cross learning on similar issues in different contexts and to illustrate what is feasible. Across sectors it can be used to address common constraints and support empowerment of actors.


Photo: CIFOR / Olivier Girard

- Alliances beyond the scope of the IP for larger scale sharing and learning, e.g. on high risk, controversial issues, or cross boundary constraints.
- Communication is critical for facilitating the process of innovation within and among IPs. The goal is to use communication processes to power changes identified by IPs. It covers a broad range of practices and approaches, to inform and manage institutional memories of IPs, link to initiatives outside of IPs and disseminate outputs for people to act.
- Participatory monitoring and evaluation framework established by actors at the respective levels measures activities, processes and the results of the new processes It can inform ways to improve an IP's own effectiveness, scaling out processes, and to promote larger scale changes.

1.6 *What are expected outputs and outcomes*

Synthesizing the above, IPs, if well facilitated and managed in a conducive context, can generate a series of outputs and outcomes

- Dialogue and understanding:
  - Space for actors to voice their needs and priories, identify bottlenecks and their root causes, express disagreements and conflicts, and generate common vision.

- Changes in practices through joint learning, based on a common interest:
  - Develop solutions beyond what individual actors can achieve alone, including investment in infrastructure, institutional change and policy development.
  - By engaging a diversity of players and partnerships, IPs generate more holistic and workable solutions to the challenges addressed.
  - Better informed decisions across scales, through flows of knowledge and information, interactions and feedback, iterative evaluation of interventions.
  - Stimulate innovation in response to actor's needs, creating new initiatives and participation of new actors.

- Building social capital and suitable forms and structures of interactions:
  - Space for sharing experiences and information, negotiation and persuasion, lobby and advocacy, and mutual trust.
  - Type of communication material, informal communications.
  - Better integration of different themes and their synergies.
  - Influence policy processes: to generate learning from successful changes, and awareness for barriers that hinder medium and long term development.
- Empowering local actors
  - Motivation and ownership, as actors are involved in the development of solutions.

- Better ways of self-organization in production and marketing processes.
- Enable weaker actors to establish their views, demand and negotiate services.
- Influence policy processes, representing women and men farmers interests and making cases or action, e.g. by providing evidence on the impact of improved technologies, increased turnover at better developed markets.

- Informing research processes
  - Share and synthesize knowledge from different domains including, but by no means only, from scientific research, more likely to convince actors.
  - Opportunity for demand driven research, to identify pressing research questions, gaps, entry and leverage points, dissemination.

- Increased adoption of relevant technologies: Generating technologies in context, fitted to the needs of end-users and learning across scales provides important information for adoption research.

- Scaling out successful innovations: on the ground, reducing the learning curve by sharing experience how the innovations were generated and what impact they achieved.

- Gender: Representation of women is an opportunity to capture a vision with relevant actions to enhance women's access to and control over benefits, knowledge and resources, including gender sensitive capacity development.

- Impact: Actors engage more effectively. Policy making more participatory and appropriate for solving issues on the ground. Multiple level interventions thereby can contribute to more coordinated action and potentially greater and wider regional impact. Increased human and institutional capacity to innovate and improve the overall systems performance. Improved governance and equity enhance the sustainability of the processes.


Photo: ILRI / Stevie Mann

2. How we plan to do innovation platforms

2.1 Core principles of establishing an innovation platform

Innovation platforms are inherently inclusive; they comprise different actors and research partners bound together by their individual interests in a shared issue, e.g. aiming at improving livelihoods, enterprises, natural resource base, social relations and/or other interests. The main objective of the IP is to provide a forum for different actors with a common vision to diagnose problems and generate solutions to them (Van Rooyen and Homann, 2009). For instance, through dialogue stakeholders in a value chain identify options for addressing opportunities and challenges at various stages of the chain and this in turn helps to improve the performance of the entire chain.

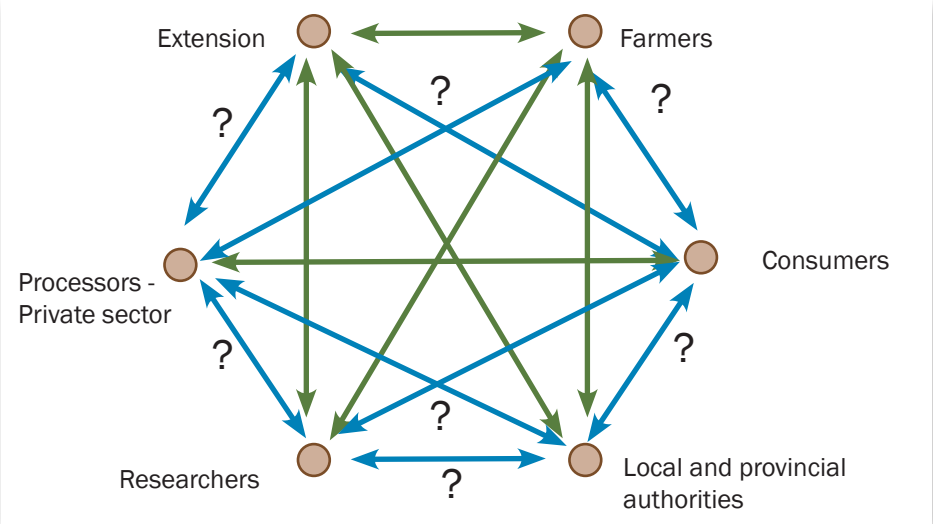

Figure 3. illustrates possible members and interactions at an IP (ILRI 2015).

Membership and linkages are flexible, different members have different roles and ways to participate. Some linkages already exist among the different groups (e.g. farmers with extension services and farmers with local authorities) (van Rooyen and Homann, 2009) and others will be created through the IP interactions e.g. research with private sector. This is important because: (a) the actors can learn from each other regarding challenges and potential solutions (b) they can exchange experiences and (c) complex challenges we often face need a wider group to resolve.

An IP has boundaries which can be thematic, geographic, and sectoral or value-chain related. IPs with a value chain focus and striving to have entrepreneurial inclination can take off faster than IPs that use Natural Resource Management as an entry point and take longer to maturity as the

benefits are less immediate. In any case it is helpful if stakeholders can start harvesting low lying fruits at early stage, for sustainability and cultivation of interest. Lessons from technology adoption can inform the IP process.

Whether formal or informal there should be ground rules so that processes are clear. An IP doesn't need to live forever. It is possible that after the main issues are addressed the group dissolves. It is also possible that the IP renews itself based on new challenges encountered. A such the IP is supposed to be dynamic in nature, changing the focus depending on a possible new challenge that needs to be addressed. Important is that actors understand the principle and for particular groups, especially farmers, the threshold to approach another value chain actor, for example government, is reduced.

2.2 *Institutional set up*

An IP is part of an iterative process of consultations (Figure 4). Regular meetings are strategically held to share information, provide feedback and plan as a group. Activities and outputs happen in between and form the base to generate information and lessons. During the same time members engage in participatory monitoring and evaluation to assess progress. Initially the process is often driven by researchers or a project team but over time the process should be led by intermediaries or other members, for sustainability of the process.

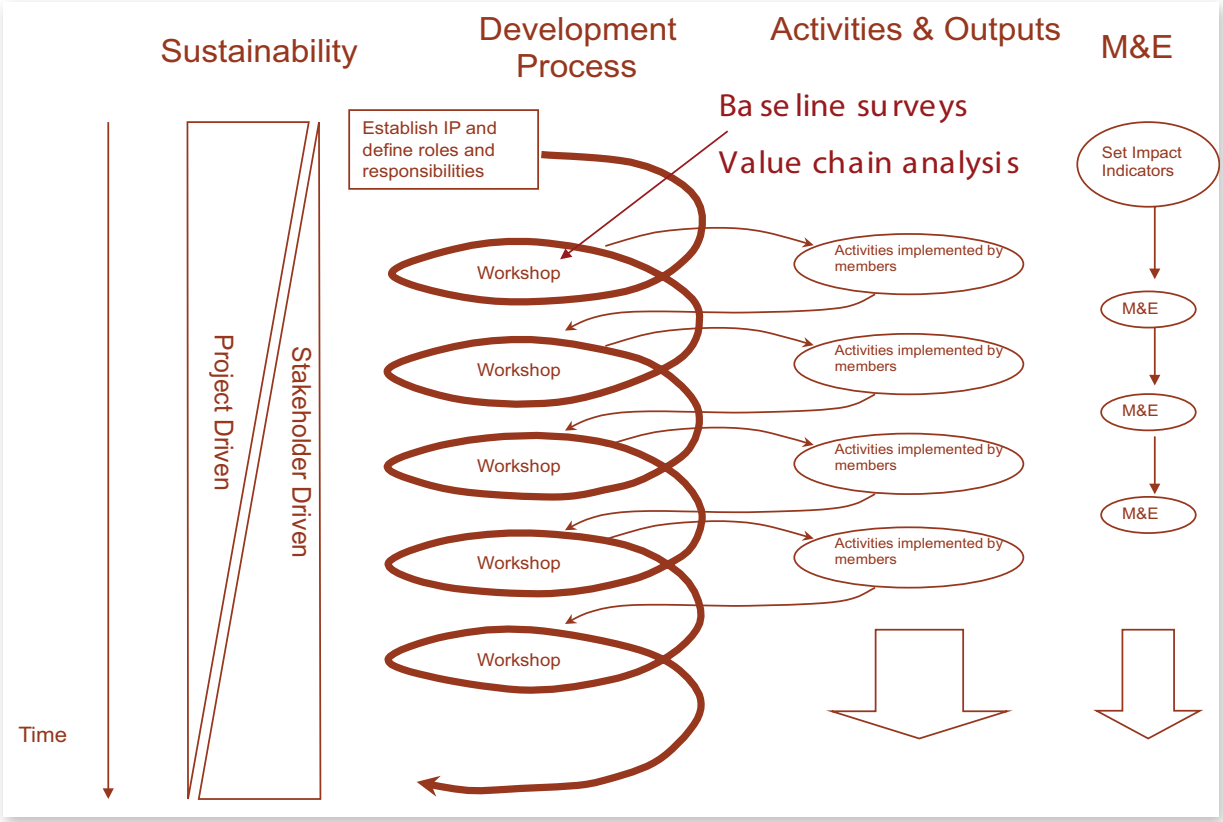

Figure 4. IPs as iterative process (van Rooyen and Homann, 2009)

Innovation platforms can take place at various scales – from ground level mostly working with farmers and focal sites for participatory technology development, to intermediate level (e.g. at provincial level to operationalize policies or scale out innovations), to national level working with central governments and organizations (e.g. to influence policies, negotiate access to new markets, promote innovations, Figure 5).

If related to the same topic, the various platforms can be interlinked and information exchanged among them. Even at local level it is important that sufficient attention is given to the information exchanges from the IP members and the group of actors that they represent and vice versa. Figure 4 shows an example of an institutional structure of IP in Zimbabwe.

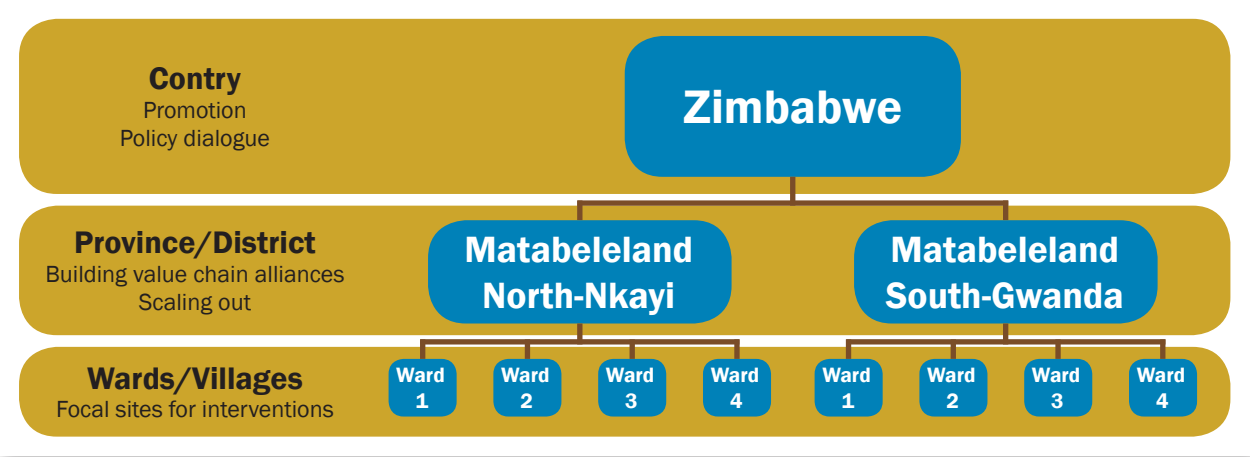

Figure 5. Institutional structure of IP, example for Matabeleland, Zimbabwe.

Multi-scale vertical links help communities to engage in innovation processes and to provide feedback from local levels. Engaging policy makers helps them comprehend potentials, constraints and needed policy support for scaling out. Direct involvement can alert policy makers at the right time and might be more persuasive than the usual policy briefs.

Large networks of actors, horizontal links, help to enable cross learning on similar issues in different contexts and to illustrate what is feasible. Across sectors it can be used to address common constraints and support empowerment of actors. Specific technical lessons can be generated and fed back e.g. to inform breeding programs, natural resource management, market models, towards increasing adoption of relevant technologies.

Learning alliances are another form of multi-actor engagement at higher scales that can support IPs. The key mandate is to encourage large scale sharing of experience and learning, and influence policy and decision makers, e.g. on high risk, controversial issues, or cross boundary constraints.

It is important to understand the institutional setting of the systems we work in to avoid duplication of efforts and creating parallel structures. Where possible, IPs should build on existing institutional structures as it can catalyse an existing ongoing process and can contribute to capacitate these existing structures to allow for innovations hence addressing better the needs or constraints identified. A typical example of this is working with an already existing farmer's group. Often they have already some type of regular interaction with the extension services or with an NGO; find out what they are discussing and see if there is a need to expand the type of value chain actors taking part in the process. Strategic links to traditional and/or government leadership may be important, to inform these structures, obtain their support and avoid working against the local structures.

2.3 Experimental learning

As one of the key operational principles IPs engage actors to identify opportunities, and then test and evaluate alternative options e.g. for production, marketing and policies. They generate information, technologies and lessons for improving the overall system, drawing on various areas of engagement in parallel processes. The experimental learning can happen at multiple levels, linking learning and feedback at various levels is important for sustainable interventions and change to take place. The IP led multi-level learning processes generally follow a similar structure and sequence. Figure 6 illustrates such a cycle, establishing an IP and the learning process in a respective context, which can take about 3 to 5 years:

- Phase 1: Situation analysis (Step 1 to 3): Actor networking, IP establishment, feedback from baseline surveys, prioritization of bottlenecks and opportunities
- Phase 2: Participatory evaluation (Step 4 and 5): Screening and testing of alternative technical, institutional and policy options, building capacities in the process, make the changes happen
- Phase 3: Develop innovations (Step 6 and 7): New strategies for partnerships, improved technologies, management and marketing, learning and feedback loops.

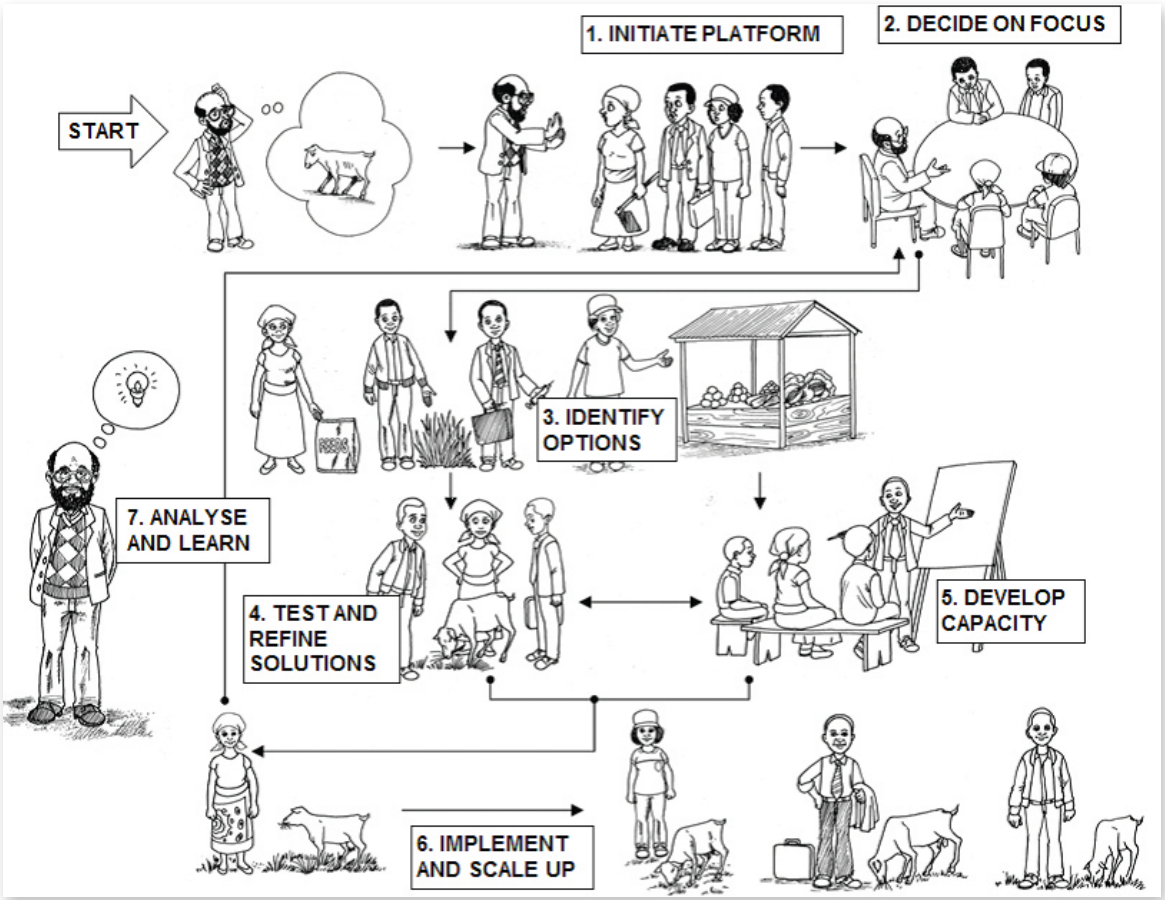

Figure 6. IPs tend to follow a 7 step cycle (Homann-Kee Tui et al., 2013).

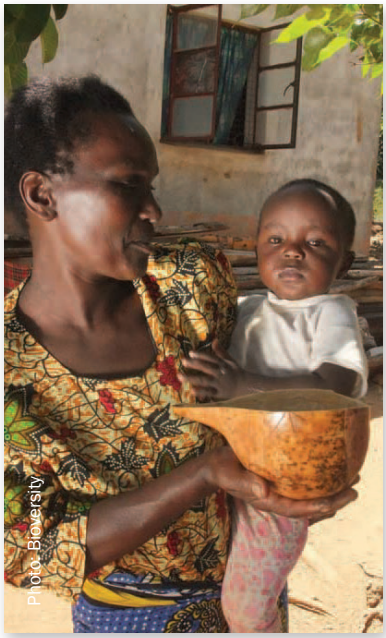
Photo: Bioversity

2.4 Innovation platform facilitation

Facilitation is critical for the success of an IP, change does not happen naturally. The importance of skilled facilitation is however often underestimated. At an IP it is not about facilitating meetings and dynamics between actors. It is about knowledge brokering among actors with different interests, stimulating their collective analysis and action, in order to overcome particular challenges that have held them back or to encourage them making use of opportunities (Van Rooyen et al., 2013). Stakeholders in an IP may initially not cooperate or share information - perhaps because they have never done so before. They may lack trust and confidence about the benefits from new ways of working together. In addition, IPs operate in changing environments, and they aim to promote change. Flexibility is therefore important throughout the IP process, in developing and adjusting objectives and activities that bring about desirable changes. Dealing with change and not losing direction is a critical task.

Tasks of IP facilitation include:

1. Help identify issues.
2. Manage meetings.
3. Support activities outside meetings.
4. Manage communication.
5. Deal with conflict and power.
6. Monitor, document and report.
7. Facilitate and advocate institutional change.
8. Develop capacities.

A good IP facilitator supports stakeholders to start working as self-organized group of actors. The facilitator must be neutral and objective, able to work with all and manage conflicts, and not push any particular agenda. The facilitator must know about the subject area and should have a clear vision to guide the IP, but he or she should not have preconceived ideas as to how to solve problems. A facilitator of an IP should have a networker personality, able to manage relations, negotiations, power dynamics over time. Listening and able to understand and facilitate the emerging issues in a group are key qualities. Important that he or she is sensitive to cultural and gender issues, and ready to help weaker actors. Positive attitude and responsiveness are critical for constructive interaction.

At the start of a project or initiative the process may be led by researchers or project staff involved. For the IP to be sustainable and not to be an outsider driven process, ideally members of the stakeholders take over this role. It is advisable to identify a champion as local facilitator, and groom this person in the process. The IP champion can be somebody with talent in facilitation, or good connection and network, e.g. representative of the local farmer association, or government support service. Joint facilitation is also possible, e.g. a team of representatives from different interest groups take over different roles, as long as there is a clear coordination mechanism on who does what and when, to avoid confusion during the process.

2.5 Capacity development

On-going learning and capacity development are key outcomes of the IP. Initially the dialogue with stakeholders creates better understanding among actors. In the process, by engaging in innovations, actors develop capacities and are better able to deal with challenges and identify new opportunities. Different approaches and experiments further nurture the capacities of the IP members. These developments don't happen overnight and that often there are specific training needs, including:

- Innovation platforms/systems: It is important the all project staff involved is trained on basic concepts and methodology used.
- Facilitation: From previous experience it is clear that facilitators and local champions need to be trained on the various skills required. Additional mentoring is advisable, to nurture innovations, while dealing with complexities and unforeseen challenges
- Participatory Monitoring & Evaluation (PM&E): It is suggested that 1 or 2 persons from the IP are trained in PM&E on the IP process. This is a relatively simple module (1/2 day maximum) with follow up from the project staff. Items include, key concepts and record keeping. The evaluation of technologies is critical to inform technology adoption and adaptation processes.
- Private sector: If the project has a commercialization or value chain aspect, it is important to train agro-dealers, buyers, traders on cost benefit analysis and how they can communicate market requirements to producers, also as a way to encourage the entrepreneurial drive of the IP, and through the right incentives encourage the adoption of relevant technologies.
- Communications: While not directly linked to the IP, communications is critical for multiple way information flows among the different members.

2.6 Communication

Communication in IPs helps to share and use knowledge and ideas among different people to stimulate and arrive at new solutions (Victor et al., 2013). Communication is crucial for facilitating the process of innovation, by not just disseminating more information, but rather using communication processes to instill trust and reliability through regular feedback, but also for power changes identified by the platform. Communication is important both within the platform and between platforms and other innovation processes (Figure 7). It serves these major purposes:

- Engagement and dialogue
- Documentation and outreach
- Learning.

Various factors can support or hinder communication in IPs:

- Power and representation
- Capacity
- Resources
- Culture

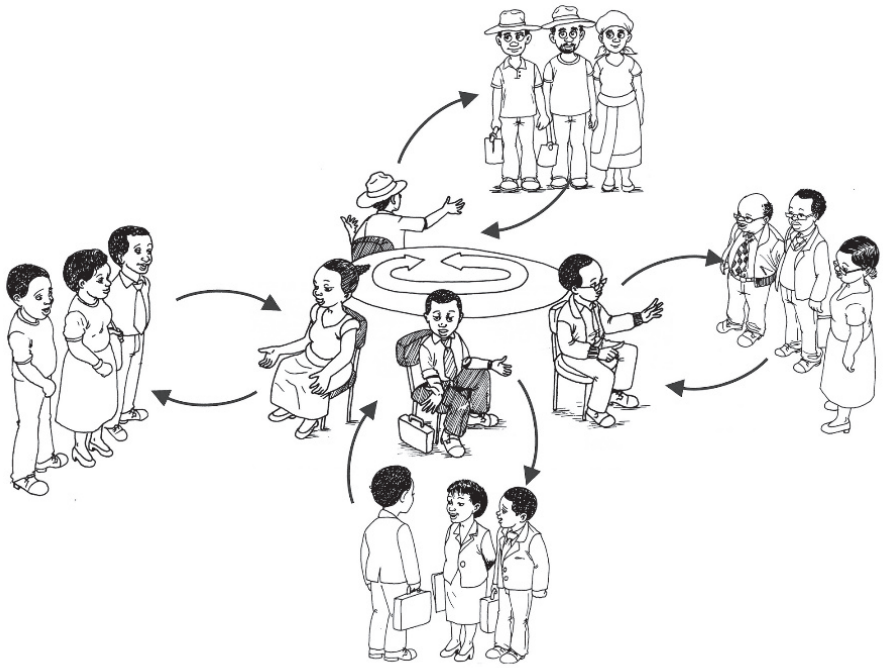

Figure 7. Communication within the platform and with the groups they represent (Homann-Kee Tui et al., 2013).

2.7 Participatory monitoring and evaluation

Monitoring aims at assessing the functioning and effectiveness of IPs to improve links among actors, develop capacity and improve policy and practice. Key design principles for the monitoring include:

- Members of the IP should take part.
- Information should be gathered continuously and fed back quickly.
- The process is iterative, so builds and refines knowledge over time.
- It uses a range of methods.
- It is linked with formal impact assessments.

We can monitor three aspects of an IP:

- Activities: Monitoring activities (e.g. on technologies, social organization, markets) makes it possible to track progress, provide feedback and improve performance.

- Processes: Monitoring process outcomes gives an understanding of how the IP changes the knowledge, attitudes and practices of individuals and the links between them.

Monitoring results provides quantitative and qualitative evidence of the IP's work and allows it to be compared with other approaches

Special attention is on documenting the IP process: Systematic documentation will help the monitoring and evaluation of the IP process and the interactions among IP members. An important part of the documentation pertains to IP meetings; what decisions were taken, what were the action points, who talks most, who doesn't talk and why. Elaborate meeting notes will allow research capturing the social processes and power dynamics that take place. Alternatively, IP members, e.g. the IP secretariat can prepare shorter summaries of the main activities, follow up steps, responsible person etc. (http://www.imgoats.org/documents). A suggested outline for a meeting report is given in Annex 1.

In addition, documentation of the interactions among IP members in between meetings are also important. Are there changes in behavior because of some of the decisions taken at the IPs? If not, why not, did we overlook something? This is also linked to capacity building, perhaps changes are not happening because actors lack the skills to make the required changes. Feedback of such observations into the IP discussions is important

Capturing these discussions and observations is an important source of information, but often overlooked. For research teams it is an advantage to have social scientists involved who can explore the social dynamics.

3. Challenges and lessons learnt

While on the overall we believe that IPs are one successful way to allow for more inclusion and ownership in research for development processes, several challenges have become apparent after first generations of IPs in practice. Table 1 summarizes the challenges and solutions that were generated in different projects.

Table 1. Challenges, lessons and solutions for working in IPs.

Challenges	Lessons, solutions
Poor facilitation of IP meetings, communication and feedback	Team of facilitators with clear roles and deliverables Mentoring facilitators
Reliable, transparent and competent partners	Assess and improve partner capacities in the IP process Learn from failures and successes
Lack of resources including budget, time, transport	Combine with local activities, e.g. government or NGO interventions Pool projects and mobilize resources with a long term perspective
Sustainability of IP processes	Work with leadership and institutions at local and higher scales
Context specificity of technologies, institutions and markets	Encourage cross scale learning and exchange visits to stimulate how relevant principles could be adjusted elsewhere
Lack of scaling up and out	Creating links between local level IPs and higher levels, e.g. through women and men farmer representation in planning meetings, regular reporting, consultation
Lack of buy in and commitment	Scientists and other actors need to clearly see the added value of investing time and resources in IPs IP structure and protocols needs to be flexible and designed to suit different stakeholders needs and availability
Power dynamics and conflicts	Strategically engage and inform influential actors Let different actor groups illustrate their views Discuss conflicts and trade-offs of interests at IP meetings
Far distances between researchers and IP sites	Clear communication and awareness of processes Have local representative who is engaged in the IP process, and works closely with extension on the ground
Natural hazards	Plan several seasons for agronomic trials, pool with other activities

4. What we plan to do


Photo: ILRI / Bruno Gerard

This section lists important elements for preparing and setting up an IP for Dryland Systems research, drawing on lessons and discussions at a Dryland Systems and livelihoods meta-analysis meeting held in Lilongwe, February 2015.

4.1 Innovation platform initiation and formation

Before establishing an IP with actor's basic information should be collected or made available from previous activities, for informed decision making at the IP.

- **Stakeholder identification and analysis:** It is important to understand who the actors are, how they are connected, who might be relevant to take part in the IP process. First information can be assembled at a preparatory workshop with knowledgeable representatives, scientists and non-scientists from the area. Research and development activities, implementing organizations and outputs/outcomes can be mapped by thematic areas (technologies, institutions, governance and policies) (e.g. Adenkunle et al., 2010; Adenkunle and Fatunbi, 2012; Lema, 2014; Mwariri and Mukuni, 2013). A small follow up scoping study on actors and networks may be conducted to deepen the understanding on actors, social dynamics and missing links. Important to consider groups that might not yet be well represented, but should be actively involved in IPs.
- **Farming systems understanding:** Livelihood analysis gives an overview on the major types of livelihoods in an area, challenges and opportunities for livelihood improvement and the factors that affect those (Amede et al., 2014; Dube et al., 2014; van Koppen, 2012). This can be further refined on how the livelihoods are distributed for different types of farm households, e.g. by gender, resource endowments, geography and age. Livelihoods analyses and feedback mechanisms can inform the options the IP is going to test. Ideally also a gender analysis, gender relations and effects, should be conducted at this early stage (FAO and CCAFS, 2012; IFAD, 2012; Manfre and Rubin 2012; Orr et al., 2014). Verification with communities is critical to capture real priorities and ongoing change.
- **Trends and drivers:** Estimating major external influences for a long term time horizon, e.g. by 2050, can bring important information about the systems likely evolution. One way is to list major drivers, and estimate the direction and magnitude to which they might influence farming systems in the area (Valdivia et al., 2015). It can help to identify possible threats as well as opportunities, which must be considered when planning current interventions.
- **Value chain analysis of main commodities:** In an open IP the commodities with market potential should be selected by stakeholders. This selected commodities can be further informed by a follow up snap shot analysis on main actors, links, challenges

and opportunities in production, marketing and policies for upgrading value chains with high potential. Important that market analyses informs technology options, to create the appropriate reward mechanisms that can sustain technology adoption (Cadilhon and Even, 2012; Swaans et al., 2013; van Rooyen and Homann, 2010).

- **Institutional set up of the IP:** Depending on the most critical bottlenecks in the overall system, there are different institutional levels where the IP can be set up; e.g. at national level for addressing policy issues like seed quality or food safety; or at district level for building new forms of collective action between farmers and support services. The existing institutional context also determines whether IP activities can be merged with existing structures, or set up as new structure is required. Analysis of existing institutional structures and partners, their strengths, weaknesses, opportunities and threats can inform at what level an IP should be set up (Nederlof and Pyburn, 2012; Thiele et al., 2006).
- **Local governance and policies:** To effectively engage in policy processes national policies, governance and shortcomings must be clearly understood. This involves assessing the impact of existing policies at various scales and providing evidence on interventions. For promoting institutionalization of IPs as extension strategy, e.g. like in Mozambique, the impact of IPs needs also to be verified (Cullen et al., 2014).
- J**oint revision of research questions, tools and approaches, and gender strategy:** Scientists contributing to an IP should revise tools and data together, use IP workshops for feedback and coordination. Important that scientist understand and approve the value added from engaging in IPs, as it requires that they share data and tools, for review and immediate use in the IP process. The integration of tools and approaches can contribute to the development of research methods.
- **Documentation:** There should be an agreement across research teams to document the IP processes also on not so relevant issues. This can provide valuable information on issues that may unlock the potential, tipping point of a system.

4.2 *Innovation platform establishment*

- **Setting the scene:** Planning for the 1st meeting it is important to have an agenda with clear objectives, to invite relevant stakeholders from a broad audience and encourage contributions from different actors for information sharing, on the IP context and process. Emphasis should be that every stakeholder represents different sources of knowledge and interest, but the IP as one way to for building synergies towards a common goal. Participants must be continuously encouraged and rewarded for sharing their knowledge and information about the systems, future trends, and opportunities. Issues should be flagged that the participants might not directly involved in or might not be aware off, but of relevance for the development.

- **Developing a common vision:** The group should discuss where they want to be in 5 or 10 years' time; different time horizons can be selected depending on the extend of change aimed at. What is the overall goal of the IP, possible barriers and constraints as well as opportunities. The vision can be broad and orientated towards an overall development pathway, e.g. market oriented development, but also focus on specific commodities, e.g. promoting access to certain crops or livestock. It can include elements that indirectly support the goal, like sustaining the natural resource base, rehabilitating infrastructure, new forms of social organization.
- **Deciding on focus:** Based on the common vision, the actors may prioritize the key issues they want to address through the IP and that are relevant to all actors involved. Once these are identified the question is whether the IP has the right people together or other stakeholders be invited. E.g. if access to credit is an issue, a representative from a financial institution might give some explanations. A useful exercise also for future reference is to ask participants to map whom and which organizations they consider as core part of the IP, intermediaries and actors in the periphery.
- **Identify options:** The IP meeting can provide valuable background information and available material should be shared, and further consultation might be needed to decide on the options and how they will be tested. Certain tasks can be immediately scaled out, e.g. farmer groups mobilizing farmers interested in engaging in on-farm trials and demonstrations, or private sector testing new ways of input delivery.
- **Way forward:** At the end of a first meeting various structural issues need to be clarified, roles and responsibilities in the IP and the host of meetings, modes and frequency of meetings, location. Also a first draft plan of action should be developed, listing the priority actions, names of people involved, and envisaged time lines. This can change in the process, but gives people a guideline.
  Emphasis should be that the IP lives from active contributions of its members, in kind such as own transport, or cash contributions to finance venue and food. An organization might fund this in the beginning, but ideally this should be taken over by members, as participants realize what the added value is for them to be part of an IP.


Photo: ILRI/Steve Mann

4.3 *Innovation platform functioning*

- **Operationalizing research:** This starts with an understanding of an overall development pathway, ultimately the goal and how it is linked with the constraints and opportunities and how research can contribute to reducing the learning curves. While new issues should emerge during the IP discussions, researchers may already have an understanding of the agricultural potential of the system, from previous activities, literature and preparatory activities. Researchers should have identified their research issues, research findings, new technologies and management practices that might be relevant for the various disciplines to inform the process, and incorporate upcoming research needs.

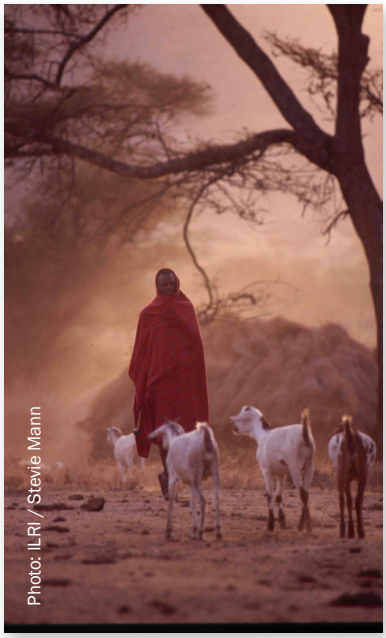
Photo: ILRI / Stevie Mann

- **Innovation platform leadership:** As the IP progresses, it is important to decide on the leadership and role of facilitators of the IP. Ideally a local actor such as a farmers union would lead the local processes; where these capacities are limited also the local government or NGO can take over leadership. In some settings it is appropriate having a coordinating body (Chair, Vice-Chair, and Secretary) of the IP. The vice-chair normally facilitates the meeting. Important that these functions are based on needs and interests, and do not end up in a bureaucratic end in itself.
- **Innovation platform structure:** Parallel to further investigations and experiments, the IP should develop its own structure and define how most effectively knowledge and feedback will be shared, with continuous review and adjustment of the action plan. Important to communicate success stories and failures, for future learning. An IP can dissolve itself as the identified constraints are addressed.
- **Capacity development:** Capacity needs assessments should be done in another parallel process, complementary to the ongoing IP activities. Projects often tend to focus on training producers based on their needs; important to also consider other stakeholders, e.g. extension officers as brokers of knowledge, or traders for developing new forms of information transfer and marketing.
- **Monitoring and Evaluation:** Once the IP is established, its members should define indicators for achievement, which will be monitored in the course of the IP. The IP needs to decide who can take on this role from among its members? After several meetings, the functioning of the IP should be revised with all members.

References

Boogaard, B., Dror, I., Adekunle, A., Le Borgne, E., Rooyen, A. van and Lundy, M. 2013. Developing innovation capacity through innovation platforms. Innovation Platforms Practice Brief 8. Nairobi, Kenya: ILRI.

Geels, F.W. and Schot, J.W., 2007, 'Typology of sociotechnical transition pathways', Research Policy, 36(3), 399-417.

Homann-Kee Tui S., Dube T., van Rooyen, A. 2013. Working document/guideline for establishing Innovation Platforms for the ZIMCLIFs Project on Integrating crop and livestock production for improved food security and livelihoods in rural Zimbabwe. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). Bulawayo, Zimbabwe

International Livestock Research Institute. 2015. Guia prática para a implementação de plataformas de inovação no sector pecuário. Maputo, Mozambique: ILRI.

Lachman, D. (2013), A survey and review of approaches to study transitions, Energy Policy, 58:269–276.

Lema, Z. and Schut, M. 2013. Research and innovation platforms. Innovation Platforms Practice Brief 3. Nairobi, Kenya: ILRI.

Lundy, M., Le Borgne, E., Birachi, E., Cullen, B., Boogaard, B., Adekunle, A. and Victor, M. 2013. Monitoring innovation platforms. Innovation Platforms Practice Brief 5. Nairobi, Kenya: ILRI.

Makini F., Kamau G., Makelo M., Mburathi G. 2013. A guide for developing and managing agricultural innovation platforms. Kenya Agricultural Research Institute. pp 58. Available from: http://aciar.gov.au/aifsc/sites/default/files/images/innovation_guide.pdf

Rooyen, A. van, Swaans, K., Cullen, B., Lema, Z. and Mundy, P. 2013. Facilitating innovation platforms. Innovation Platforms Practice Brief 10. Nairobi, Kenya: ILRI.

Swaans, K., Puskur, R., Taye, H. and Haile, A.G. 2013. A monitoring and evaluation framework to assess the performance of innovation platforms in the context of livestock value chains. ILRI Discussion Paper 24. Nairobi, Kenya: International Livestock Research Institute.

Swaans K., Boogaard B, Bendapudi R., Taye H., Hendrickx S and Klerkx L. 2014. Operationalizing inclusive innovation: lessons from innovation platforms in livestock value chains in India and Mozambique, Innovation and Development, DOI: 10.1080/2157930X.2014.925246. Available online: http://www.tandfonline.com/doi/full/10.1080/2157930X.2014.925246#.VNngsfmUfpV

Swaans, K., B. Cullen, A. van Rooyen, A. Adekunle, H. Ngwenya, Z. Lema and S. Nederlof. 2013. Paper. Dealing with critical challenges in African innovation platforms: lessons for facilitation. Knowledge Management for Development Journal 9(3): 116-135 http://journal.km4dev.org/

Tucker, J. Schut. M., and Klerkx, L. 2013. Linking action at different levels through innovation platforms. Innovation Platforms Practice Brief 9. Nairobi, Kenya: ILRI.

Valdivia, R.O. and J.M. Antle et al. 2014. Representative Agricultural Pathways and Scenarios: A Trans-Disciplinary Approach to Agricultural Model Inter-comparison, Improvement and Climate Impact Assessment. AAEA Environmental Economics Track Session, Minneapolis, MN July 29 2014. http://tradeoffs.oregonstate.edu/representative-agricultural-pathways-raps

Van Rooyen, A. and Homann, S. 2009. Innovation platforms. A new approach for market development and technology uptake in southern Africa. Bulawayo, Zimbabwe: ICRISAT.

Van Rooyen, A., Swaans, K., Cullen, B., Lema, Z., Adekunle, A., Mundy, P. 2013. Facilitating innovation platforms. Innovation Platforms Practice Brief 10. Nairobi, Kenya: ILRI.

Victor, M., Ballantyne, P., Le Borgne, E. and Lema, Z. 213. Communication in innovation platforms. Innovation Platforms Practice Brief 7. Nairobi, Kenya: ILRI.

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Suggested reading

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

Adekunle A.A and Fatunbi A.O 2012. Approaches for setting up multi-stakeholder platforms for agricultural research and development. World Applied Sciences Journal 16 (7): 981-988.

Adekunle A.A, A.O Fatunbi and M.P Jones 2010. How to set up an innovation platform. A concept guide for the Sub-Saharan African challenge programme (SSA CP). Forum for Agricultural Research in Africa (FARA).

Amede, T.; Desta, L. T.; Harris, D.; Kizito, F.; Cai, Xueliang. 2014. The Chinyanja triangle in the Zambezi River Basin, southern Africa: status of, and prospects for, agriculture, natural resources management and rural development. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE); 32p.

Cadilhon, J. and Even, M.-A. 2012. Marketing and quality assurance, essential keys to rice production increases in Ghana. Centre for Studies and Strategic Foresight Analysis 52. Paris: Ministry of Agriculture

Cullen, B., Tucker, J. Snyder, K., Lema, Z. and Duncan, A. 2014. An analysis of power dynamics within innovation platforms for natural resource management, Innovation and Development, 4:2, 259-275, DOI: 10.1080/2157930X.2014.921274

Dube, T., Homann-Kee Tui, S. van Rooyen, A., Rodriguez, D (2014) Baseline and Situation Analysis Report: Integrating Crop and Livestock Production for Improved Food Security and Livelihoods in Rural Zimbabwe, Socioeconomics Discussion Series Paper Series Number 29. http://oar.icrisat.org/8410/1/ISEDPS_29_2014.pdf

FAO and CCCAFS. 2012. Training guide gender and climate change research in agriculture and food security for rural development. FAO, Rome. http://www.fao.org/docrep/015/md280e/md280e.pdf

IFAD, 2012. A manual for gender focused field diagnostic studies. IFAD. Rome. http://www.ifad.org/gender/tools/gender/diagnostic.pdf

Klerkx, L., van Mierlo, B. and Leeuwis, C. 2012. Evolution of systems approaches to agricultural innovation: Concepts, analysis and interventions. In: Darnhofer, I., Gibbon, D. and Dedieu, B. (eds), Farming systems research into the 21st century: The new dynamic. Dordrecht: Springer: 457–83.

Lema, Z. 2014. Manual for innovation platform facilitators in Africa RISING Ethiopia sites. ILRI, Addis Ababa.

Lundy, M.,Gottret, M.V. and R. Best. 2012. Linking research and development actors through learning alliances in agricultural innovation systems: An investment sourcebook. Washington, DC: World Bank. 344–348.

Manfre, C. and Rubin, D. 2012 Integrating Gender into Forestry Research: A Guide for CIFOR Scientists and Programme Administrators. CIFOR, Bogor. http://www.cifor.org/publications/pdf_files/Books/BCIFOR1203.pdf

Nederlof, E.S. and R. Pyburn. 2012. One finger cannot lift a rock: Facilitating innovation platforms to trigger institutional change in West Africa. Royal Tropical Institute, Amsterdam.

Orr, A., Tsusaka, T., Homann-Kee Tui, S. (2014) Gender Tools for Value Chain Analysis: Examples from Groundnuts in Eastern Province, Zambia. Socio-economics Discussion Paper Series. Series Paper Number 21. http://oar.icrisat.org/8275/1/A_Orr_et_al_ISEDPS_21.pdf

Pali, P. and Swaans, K. 2013. Guidelines for innovation platforms: Facilitation, monitoring and evaluation. ILRI Manual 8. Nairobi: ILRI. http://cgspace.cgiar.org/handle/10568/27871

Swaans, K., Puskur, R., Taye, H. and Haile, A.G. 2013. A monitoring and evaluation framework to assess the performance of innovation platforms in the context of livestock value chains. ILRI Discussion Paper 24. Nairobi, Kenya: International Livestock Research Institute. Available online: https://cgspace.cgiar.org/bitstream/handle/10568/35054/DiscussionPaper24.pdf?sequence=6

Thiele, G., A. Devaux, C. Velasco, and K. Manrique. 2006. Horizontal learning: Stimulating social learning among peers. ILAC brief 13. www.cgiar-ilac.org/files/ILAC_Brief13_Horizontal_Evaluation_2.pdf Nederlof, S, Wongtschowski, M., and van der Lee, F. (eds) 2011. Putting heads together: Agricultural innovation platforms in practice. Bulletin 396 (Amsterdam: KIT publishers).

Van Koppen, 2012. Guidelines for local-level integrated water resource management. SADC Regional Water Sector Program. http://www.iwmi.cgiar.org/Publications/Other/PDF/Guidelines_for_local-level_integrated_water_resource_management.pdf; www.sadcwater.com

van Rooyen, A. and Homann, S. 2010. Innovation platforms: A new approach for market development and technology up-take in southern Africa. Patancheru, Andhra Pradesh: India ICRISAT. www.icrisat.org/locations/esa/esa-publications/innovation-platform.pdf

World Bank. Enhancing Agricultural Innovation: How to Go Beyond the Strengthening of Research Systems. Available online: http://siteresources.worldbank.org/INTARD/Resources/Enhancing_Ag_Innovation.pdf

Mwariri M and Mukundi K T (eds) 2013. Operational field guide for developing and managing local agricultural innovation platforms. KARI .Kenya

Annex 1 – Example of IP meeting report

Background

- Name Innovation platform:
- Name Project:
- Name place (locality, district):
- Date and place of meeting:
- Duration of the meeting:
- Facilitator:
- Note taker:

Table 1. Main points of discussion

Objective	Activity	Results	Possible challenges	New initiatives/ideas	Next steps	By when?	Who is responsible?

Annex 2 – Monitoring and Evaluation

Table 1 Key parameters to monitor IP related processes

Processes	Key parameters
Establish-ment of the IP	■ Mechanisms used for identification of all relevant actors ■ Mechanisms used to ensure inclusion of target groups ■ Mechanisms used to articulate common objective, issues being addressed, and roles ■ Development of a commonly agreed M & Learning system and a plan to implement it ■ Mechanisms used for identifying capacity needs of actors and developing strategies to address them
Functioning / process	■ Mechanisms used for ensuring participation of relevant IP actors at critical events ■ Criteria and methods used to identify constraints and opportunities to identify possible solutions/interventions ■ Mechanisms used to prioritise interventions and develop joint action plans ■ Mechanisms used to integrate IP actors' knowledge in the innovation process
Process management	Independent, competent, and responsive facilitation
Coalition building	■ Mechanisms used for identifying potential knowledge sharing channels and developing plans to use them ■ Mechanisms used for mobilizing necessary resources, endorsement and support

Table 2 Key parameters to monitor IP related outputs

Output	Key parameters
Actor coalition	■ Platforms consists of relevant and necessary value chain actors (expertise, experience, competence, specialization), including target groups ■ Well articulated common objective, issues being addressed, and roles
Interaction, linkages and communica-tion among actors in-creased	■ Patters of interaction, linkage and social capital among IP actors and/or their organizations ■ Increased exchange of information on critical issues related to VCs (technology, market, policy etc.) ■ Priorities/constraints in VC identified

Functioning / IP	■ Participation of IP actors at critical events ■ Innovation plans/strategies address key constraints and opportunities agreed by the IP in the context of entire value chains ■ Extent to which there is systematic planning, action reflection cycle within the IP
Capacity building	■ number and types of training events ■ congruence between problems identified and training provided ■ congruence between type of (training) tools/methods, problems and target groups (i.e. appropriate tools)

Table 3 Key parameters to monitor IP related outcomes

Outcome	Key parameters of change
Responsiveness of IP to the needs of VC actors	■ Number of issues addressed in congruence with priorities/constraints in VC ■ Extent to which concerns and priorities of various actors in the VC are integrated into the planning process and action plans
Increased human & institutional innovation capacity among VC actors	■ Extent to which IP actors participate and articulate/express needs and feedback to IP ■ Ability of IP actors to independently implement/monitor their activities ■ Changes in level of knowledge, attitude and practice of critical issues (markets, production etc.)
Joint innovation to improve performance of VC	■ Number of technological, social, market, policy interventions/strategies identified, developed and tested
IP governance, equity and dynamics	■ Extent to which the governance is participatory and empowering ■ Extent to which all members needs and concerns are taken into consideration
Sustainability of the process	■ Changes in behaviours and practices of actors to continue interactions, communication and joint action

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