Innovation Platforms for Agricultural Development
Evaluating the mature innovation platforms landscape

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1 The state of innovation platforms in agricultural research for development

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Background

Innovation Platforms (IPs) are widely viewed as a promising vehicle for increasing the impact of agricultural research and development (van Mierlo and Totin, 2014; van Paassen et al., 2014). IPs build on experiences with earlier well-known multi-stakeholder approaches such as Farmer Field Schools (Kenmore et al., 1987; Pontius et al., 2002), Participatory Research (Kerr et al., 2007), Learning Alliances (Lundy et al., 2005; Myumi et al., 2009), Local Agricultural Research Committees (Hellin et al., 2008) and Natural Resource Management Platforms (Röling, 1994). In the field of agricultural research for development (AR4D), IPs form an important element of a commitment to more structural and long-term engagement between stakeholder groups (Sumberg et al., 2013a). IPs aim to foster agricultural innovation by facilitating and strengthening interaction and collaboration in networks of farmers, extension officers, policy makers, researchers, non-governmental organizations (NGOs), development donors, the private sector and other stakeholder groups. The nature of agricultural innovation can be both technological (e.g. information and communication technology (ICT), agricultural inputs or machinery) and institutional (market approaches, modes of organization, policies and new rules).

An important objective of IPs is to stimulate continuous involvement of stakeholders in describing and explaining complex agricultural problems, and in exploring, implementing and monitoring agricultural innovations to deal with these problems. This is deemed important for three reasons. First, different stakeholder groups can provide various insights about the biophysical, technological and institutional dimensions of the problem, and ascertain what type of innovations are economically, socially, culturally and politically viable (Esparcia, 2014; Schut et al., 2014b). Second, stakeholder groups become aware of their fundamental interdependencies and the need for concerted action to address their constraints and reach their objectives (Leeuwis, 2000; Messely et al., 2013). Third, stakeholder groups are more likely to support and promote specific innovations when they have been part of the decision-making or development process (Faysse, 2006; Neef and Neubert, 2011).
By facilitating interaction between different stakeholder groups, IPs provide space not only for exchange of knowledge and learning (Ngwenya and Hagmann, 2011), but also for negotiation and dealing with power dynamics (Cullen et al., 2014). In so doing, IPs can contribute to strengthening ‘capacity to innovate’ across stakeholder groups. The capacity to innovate can best be described as the ability of individuals, groups or systems to continuously shape, or adapt to change. This ability stems from varying degrees of resourcefulness in assets, time, knowledge, dialogue, experimentation and persistence. If capacity to innovate is high, individuals, groups and systems are better able to react proactively, flexibly and creatively to shocks, challenges and opportunities (Boogaard et al., 2013a). In summary, an IP’s capacity to innovate is related to being able to organize an incentivized process to generate short and long-term benefits for each actor.

In their ability to bring people together, IPs can strengthen capacity to innovate among interdependent groups of stakeholders to:

- continuously identify and prioritize problems and opportunities in a dynamic systems environment;
- take risks, experiment with social and technical options, and assess the trade-offs that arise from these;
- mobilize resources and form effective support coalitions around promising options and visions for the future;
- link with others in order to access, share and process relevant information and knowledge in support of the above;
- collaborate and coordinate with others, and achieve effective concerted action (Leeuwis et al., 2014).

Depending on the specific objective of an IP, and the context in which they function, IPs can operate at different levels. IPs can focus on enhancing the capacity to innovate at the community or village level to address a local productivity problem. However, IPs can also operate at higher levels if the objective is to support the scaling of successful (local) innovations or the facilitation of national policy development and implementation (Cadilhon et al., 2013). If agricultural problems are embedded in interactions and trade-offs across different administrative or spatial levels, interconnected IPs that strengthen the development and implementation of coherent intervention strategies across these different levels may be required (Tucker et al., 2013). Similarly, exploring value-chain innovation through IPs may require the involvement of local producers, regional processors, distributors and retailers, but also of national policy makers and certification bodies (Birachi et al., 2013).

Recent studies on IPs demonstrate their potential in terms of realizing robust agricultural research, development and policy strategies and impact (e.g. Ayele et al., 2012; Kilelu et al., 2013; Schut et al., 2014a; Swaans et al., 2014). However, experiences also show that IPs’ performance and impact depend on
many variables. For example, the quality of platform organization and facilitation (Rooyen et al., 2013), communication within the IP (Victor et al., 2013), stakeholder representation (Cullen et al., 2013), and institutional embedding determine, to a large extent, whether IPs can lead to real change and impact (Nederlof et al., 2011; Boogaard et al., 2013b; Cullen et al., 2013). Despite all the rhetoric around IPs, there may be an institutional context causing the continuation of ‘business as usual’ practices, where science develops and tests technologies that are then transferred to end users, often farmers (Friederichsen et al., 2013; Sumberg et al., 2013b; Cullen et al., 2014). Furthermore, several authors have found that resources needed to implement IP approaches are often difficult to obtain in systems that adhere to more traditional linear, top-down approaches to innovation (Kristjanson et al., 2009; Nettle et al., 2013). IPs are not a panacea – a solution to all agricultural problems. There are no blueprints, recipes or silver bullets (Boogaard et al., 2013b), and this is precisely why understanding factors and processes that can contribute to IPs’ impact is difficult, but essential.

Documentation of and learning from the effectiveness and impact of IPs is crucial (Lundy et al., 2013). There are many good case studies of IPs published over the past decade (e.g. Nederlof et al., 2011; Nederlof and Pyburn, 2012). However, most, if not all, of these tend to focus on emerging platforms, with limited scale, and a narrow focus (e.g. on a single commodity). With a new ‘wave’ of IPs in international AR4D, there is a need to reflect on the implementation, sustainability and impact of mature, more established IPs. With this book, we aim to enhance the existing body of knowledge around IPs by focusing on the impact of these mature and established IPs in the AR4D landscape. We realize that many impacts of IPs, such as their contribution to capacity to innovate, are intangible and hard to measure (Boogaard et al., 2013a). There can be time lags between a platform’s activities and its impact and it may be difficult to specify the exact contribution of an IP to change or impact (Duncan et al., 2013). Nevertheless it is important to gather evidence about platform actions and achievements, and to speak about and promote successful mature IP case studies.

Case study competition process

Many AR4D programmes, including the CGIAR Research Programs on Integrated Systems for the Humid Tropics (Humidtropics), Climate Change, Agriculture and Food Security (CCAFS), Agricultural Aquatic Systems (AAS), Livestock and Fish, and Maize, as well as the Forum for Agricultural Research in Africa (FARA) Sub-Saharan Africa Challenge Program (SSA CP) have adopted multi-stakeholder approaches to achieve development impacts. Humidtropics, for example, uses integrated systems research and multi-stakeholder approaches to enhance agricultural productivity, eco-systems integrity and institutional innovation. IPs are supposed to drive the demand for concrete research
for development activities at the field level, as well as facilitate the active participation of key scaling actors such as the private sector and policy makers at higher levels, where some of the more structural opportunities and constraints for agricultural innovation can be identified.

In 2013, the International Livestock Research Institute (ILRI), as part of its work for Humidtropics, published 12 IP Practice Briefs, intended to inform agricultural research practitioners who seek to support and implement IPs. In the same year, Wageningen University and Research Center (WUR) and ILRI published a Humidtropics paper reviewing critical issues for reflection when designing and implementing Research for Development in IPs (Boogaard et al., 2013b). Several partners also published an IP Guide in 2013, produced through the Kenya Agricultural and Livestock Research Institute (Makini et al., 2013).

In April and November 2014, ILRI, WUR and the International Institute for Tropical Agriculture (IITA) organized two Humidtropics workshops in Nairobi, Kenya and Xishuangbanna, China on ‘Understanding, Facilitating and Monitoring Agricultural Innovation Processes’. The IP Case Study Competition was launched to continue this quest to decipher the DNA of IPs, and to bring together different stakeholders and actors in the agriculture sector to produce case studies featuring the most innovative ideas, best practices, actionable knowledge and strategies emerging from mature IPs in AR4D.

Contributions to the IP competition were ‘crowd-sourced’ through an open call for case studies. The theme for the competition was ‘Mature innovation platforms in the agricultural systems research landscape’. Under this overarching theme, case studies focused on one of the following topics:

1. **Systems trade-offs**: How have IPs facilitated systems synergies and trade-offs to help farmers maximize production and yield? Trade-offs are a necessary aspect of systems research and agriculture decision making. Analysing system trade-offs helps farmers prioritize their interventions while battling food security, climate change, limited resources, population pressures and technological challenges.

2. **Platforms focusing on multiple commodities**: How have IPs optimized simultaneous work on multiple commodities (e.g. crop–livestock–tree interactions)? Growing more than one kind of crop in the same area – multiple cropping – can help boost the nutrient levels in the soil, protect against harmful weeds, increase the yield of crops and increase revenues from agriculture.

3. **Scaling up agricultural innovations**: How do IPs help scale up agricultural innovations? How have IPs promoted agricultural innovation, the use of new technologies, access to knowledge and markets beyond the initial scope of the platform?

4. **Learning from failure**: ‘It’s fine to celebrate success but it is more important to heed the lessons of failure’ (Bill Gates, www.brainyquote.com/quotes/quotes/b/billgates385735.html). The wisdom of learning from failure is
incontrovertible, yet there are still too few documented cases of the challenges and dynamics that can lead to the failure of platforms.

Applicants were asked to focus on case studies that have a proven impact on a large scale, and that feature mature IPs. Generally, such IPs would have moved beyond the pilot stage and would have had proven results that would be scalable or replicable. Likewise, we encouraged cases that focus on principles, methodologies and ideas that can benefit people everywhere, for example, by highlighting the implementation and role of specific IP concepts (e.g. facilitation, stakeholder representation) in achieving the outcome. During the initial call for case studies, we received 28 abstracts; 7 per cent of the abstracts were submitted under the category systems trade-offs, 32 per cent under the category of multiple commodities, and 46 per cent of the abstracts were submitted under the category scaling up agricultural innovations. None of the abstracts focused on learning from failure. The remaining 15 per cent of the cases were not characterized under one of the specific themes by the authors.

The 28 cases submitted were evaluated for:

- **content strength**: case studies should clearly define the problems and challenges being addressed, construct a detailed and descriptive narrative of how various stakeholders used the IP to create solutions and encourage further thinking and debate on the topic;
- **quality of writing**: case studies should be logically written, with a strong emphasis on good writing and presentation;
- **usefulness of the case study**: case studies should feature only those interventions/programmes that meet the above assessment criteria and have demonstrated long-standing impact. Case studies must feature solutions that are replicable, scalable, sustainable, reliable and relevant for the broader agricultural community.

Based on these evaluation criteria and the four topics, 12 cases were shortlisted after independent review and scoring by the editorial team. The lead authors of these 12 cases were invited to attend a writeshop in Nairobi in February 2015. As part of the preparation process, authors received writing guidelines to draft their case studies. Furthermore, case authors had access to individual mentoring from one of the editors who specialized in case study preparation and creative writing. During the writeshop, participants received training on developing a case outline, telling stories and identifying unique selling points of the case. Furthermore, they could benefit from working with both subject matter experts and communication experts from different CGIAR Centres. Illustrators supported the authors in visualizing their learning experiences.

Following the writeshop, authors had three weeks to finalize and submit their case study. The 12 cases were again reviewed and scored by the editorial team.
### Table 1.1: Overview of eight case studies that were selected for inclusion in this book (in subsequent chapters we will mainly refer to the short name of the case)

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Case study title</th>
<th>IP long name</th>
<th>IP short name</th>
<th>Country</th>
<th>Category of submission</th>
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<tbody>
<tr>
<td>2</td>
<td>With trust and a little help from our friends: how the Nicaragua Learning Alliance scaled up training in agribusiness</td>
<td>Nicaragua Learning Alliance</td>
<td>NLA</td>
<td>Nicaragua</td>
<td>3: Scaling up agricultural innovations</td>
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<td>3</td>
<td>Overcoming challenges for crops, people and policies in Central Africa – the story of CIALCA stakeholder engagement</td>
<td>Consortium for Improving Agriculture-based Livelihoods</td>
<td>CIALCA</td>
<td>Burundi, DRC and Rwanda</td>
<td>1: Systems trade-offs</td>
</tr>
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<td>4</td>
<td>Can an IP succeed as a cooperative society? The story of Bubaare IP Multipurpose Cooperative Society Ltd</td>
<td>Bubaare Innovation Platform</td>
<td>Bubaare</td>
<td>Uganda</td>
<td>3: Scaling up agricultural innovations</td>
</tr>
<tr>
<td>6</td>
<td>Humidtropics IP case study: WeRATE operations in West Kenya</td>
<td>WeRATE</td>
<td>WeRATE</td>
<td>Kenya</td>
<td>3: Scaling up agricultural innovations</td>
</tr>
<tr>
<td>7</td>
<td>IPs for improved natural resource management and sustainable intensification in the Ethiopian Highlands</td>
<td>Humidtropics Ethiopia Local Innovation Platforms</td>
<td>NBDC</td>
<td>Ethiopia</td>
<td>2: Platforms focusing on multiple commodities</td>
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<td>8</td>
<td>Sustaining the supply of organic White Gold – the case of SysCom IPs in India</td>
<td>SysCom India</td>
<td>SysCom</td>
<td>India</td>
<td>1: Systems trade-offs</td>
</tr>
<tr>
<td>9</td>
<td>MilkIT IP. Changing women’s lives – one cow and one litre of milk at a time – deep in the foothills of India’s Himalayan mountains</td>
<td>Dairy Value Chain and Feed Innovation Platform</td>
<td>MilkIT</td>
<td>India</td>
<td>3: Scaling up agricultural innovations</td>
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independently. Based on the scoring, eight of the 12 cases were found to be suitable for publication in this book (Table 1.1).

**Case study characterization and readers’ guide**

During the writeshop, the editorial team facilitated the participants in several case study characterization exercises that provided more detailed information about the cases. Characterization included their geographical spread, age and life stage, and specific information on the multi-stakeholder processes, the content matter, platform support functions, and outcomes and impacts. Based on the characterization of the case studies, the next section informs readers about the extent to which the different cases address various components of the multi-stakeholder processes: content matter, platform support functions, and outcomes and impacts.

**Geographical spread of the case studies**

The case studies selected for publication in this compilation cover three continents. One is located in Nicaragua in Central America, while two report experiences from India in Asia. Four cases cover Eastern Africa: one from Ethiopia, one from Kenya and two from Uganda. Finally, one case describes a regional platform covering the three Central African countries of Burundi, the

![World map indicating geographical spread of the eight case studies](image)

*Figure 1.1* World map indicating geographical spread of the eight case studies
Democratic Republic of Congo and Rwanda (Figure 1.1). Cases are ordered by geographical location, from West to East.

**Age and life stages of the platforms**

The eight IPs featuring in this book vary in the duration of their activities (see Figure 1.2). The youngest platform is the Mukono–Wakiso Humidtropics IP that was only established a year ago. The oldest platform is WeRATE from West Kenya. However, the editors did not consider age as the only criterion of selection for ‘mature’ platforms. Rather, maturity was approached from a multiple-dimension optic, looking at whether the platforms were embedding multiple commodities, were addressing system trade-offs, or had good inroads in terms of policy impact and scaling. As such, it is more interesting to position the IPs featured along a continuum of ‘level of maturity’ rather than by the duration of their activities.

IPs generally go through several steps of ‘life stages’ (Tucker et al., 2013). Their establishment can correspond to their ‘birth’. When in ‘childhood’, IPs concentrate on identifying the problem their members will try to solve collaboratively. The first trials and errors in implementing innovative activities can be linked to an IP’s ‘adolescence’. The IP can be considered to be in ‘adulthood’ when its first impacts have been achieved and it starts scaling up its activities for further outreach. When IPs start tackling other R&D problems and strive to scale their innovations further, they have reached ‘maturity’. Their mature status can be very long if the IP is considered to be the appropriate tool to keep solving complex multi-stakeholder problems. However, some IPs are also disbanded when they have solved the issue they were meant to address. It also often happens that IPs stop working when external funding dries up and the costs of the meetings and R&D activities cannot be financed internally. This final stage represents the ‘death’ of the IP.

Despite some of the IPs featuring in this book being relatively young in age, all of them have reached or passed the ‘adolescent’ stage of trying out innovative activities. Some of the authors of the case studies self-reported their IPs to be at a comparable stage of maturity, even though the platforms had been operating for very different durations. Consider that the Nicaragua Learning Alliance was considered ‘adult’ by its authors after seven years of activity, whereas the MilkIT platform in India had reached the same life stage after only two years of activity, according to its main author. Likewise, the lead author of the NBDC case from Ethiopia considered that the platform had reached maturity after four years of existence, when it had taken more than ten years of work for Syscom in India and WeRATE in Kenya to reach a similar stage, according to their authors. Finally, the CIALCA IP was also considered to be mature, as the CIALCA stakeholder networks provided the basis for the current Humidtropics work in Burundi, Rwanda and DRC.
**Platform characteristics**

Detailed characterization of the IPs during the writeshop (by the case study authors) and during the assessment of the eight case studies selected during independent review and scoring (by the editorial team) provided a rich picture of the case studies. Focus of the characterizations was put on four interlinked components, namely (1) the multi-stakeholder processes, (2) the content matter, (3) platform support functions and (4) outcomes and impacts.

Figure 1.3 visualizes how these four components are related. It shows how platform support (e.g. facilitation) is required to connect the multi-stakeholder processes of learning, negotiation and experimentation (‘how’ a problem is identified and addressed) to concrete content matter (‘what’ is the problem that is bringing together different stakeholders). Outcomes and impacts can both result from the process, as well as from the content matter. An example of process impact could be the strengthening of stakeholder networks, collaboration, interaction and willingness to engage in joint actions. An example of content matter impact could be an innovative seed, breed or any other technology, policy or management practice that is scaled beyond the original scope of the IP.
Multi-stakeholder process

IPs operating in an AR4D context can form an important vehicle for participatory and demand-driven research and development activities. Research and development are often disconnected because of the different objectives, time-lines and institutional dynamics of research and development processes. Continuous representation of different groups of stakeholders (including attention for different gender, age and ethnic groups) in research for development (R4D) processes, for example through IPs, can provide better insight into the information, technology and service needs for different groups and their communication and collaboration preferences towards achieving development impact. Furthermore, stakeholders (including politicians, donors and other change agents) are more likely to support and promote specific innovations when they have been part of the innovation and decision-making process (Faysse, 2006).

More inclusive and participatory research strategies can support the continuous alignment of research and development strategies with the changing context and stakeholder demands (Greenwood and Levin, 2007). This requires a degree of flexibility and adaptive capacity. The CIALCA, MilkIT and Mukono–Wakiso cases provide good examples of how stakeholder participation and demand-driven R4D can strengthen the contribution of IPs to achieving development impact.
A second key characteristic of multi-stakeholder collaboration in IPs is that they can foster capacity development for collective agency and action. Through collaborating in an IP, stakeholder groups can become more aware of their fundamental interdependencies and the need for concerted action to reach their objectives (Leeuwis, 2000). This can provide a basis for better collaboration, investment, joint resource mobilization and policy advocacy. Approaches such as Participatory Learning and Action Research (Wopereis et al., 2007) and Participatory Action Research (e.g. Ottosson, 2003) can provide a good basis for developing the capacity of all involved in IPs. Readers with a specific interest in how IPs can contribute to developing the capacity for collective agency, action and impact are recommended to read the CIALCA, NLA and Bubaare case studies.

Content matter

To assess and categorize the content matter addressed in the IP case studies, we look at three types of agricultural innovations. The first one deals with novel technologies and management practices to increase productivity (based on laboratory and field science). Readers with an interest in productivity innovation should definitely have a look at the CIALCA, SysCom, WeRATE and Mukono–Wakiso cases. The second type of innovations are related to responsible NRM that deal with low soil fertility, low yields, erosion, deforestation and climate change (Misiko et al., 2013). The NBDC and SysCom cases deal with such NRM innovations. The third type of innovations are geared towards creating an enabling institutional environment (or institutional innovation) that can include: enhanced collaboration between stakeholders, social infrastructure, access to finance, certification, land tenure arrangements, and public goods and markets (Pretty et al., 2011). Of the case studies included in this book, the CIALCA, MilkIT and Bubaare cases provide good examples of how IPs can contribute to institutional innovation.

An important element of systems approaches is that productivity, NRM and institutional innovations need to emerge in an integrated way, making smart use of available agro-ecological and human resources across different systems levels (Robinson et al., 2015). Both the CIALCA and SysCom cases address two of the three types of innovation.

Platform support functions

Effective support to, and learning from, multi-stakeholder processes in agricultural R4D interventions requires four major critical success functions. The first one, facilitation, is usually fulfilled with a small team of people. Facilitation refers to ensuring sufficient linkages and empowerment of the process participants. The linkages not only cover the connections between participants but also those of the IP with markets, donors and political decision makers (Rooyen et al., 2013). Facilitation, and how it contributed to platform
impact, is described in depth in the Mukono–Wakiso case from Uganda. The second critical success function is organization. Organization refers to provision of logistical support, backstopping of events and administering the accountability work. Typical examples are renting the venue, providing lunch and handling IP finances. The Ugandan Bubaare and Mukono–Wakiso cases stand out in terms of their reflection on platform organization. The third function is documentation. Documentation refers to the systematic capturing and reporting of events and developments in the process. Documentation and learning systems should be inclusive and participatory. IP members should participate in monitoring, and information should be gathered continuously and fed back quickly. As such, the monitoring and learning system becomes a tool for reflection on both the platform process and its ability to develop solutions to concrete problems (Lundy et al., 2013). Readers with a particular interest in documentation of platform process and impact should definitely have a look at the NLA and Mukono–Wakiso cases. Lastly, research on the platform process function is critical. In the existing international AR4D landscape, sufficient prioritization of the learning tasks and funding of the learning activities are highly correlated with the availability and enthusiasm of the researchers championing process research (Lema and Schut, 2013). Platform research receives particular attention in the Mukono–Wakiso case, which stands out overall in terms of its attention to platform support functions.

Outcomes and impact

When categorizing the case studies, editors assessed the outcomes and impacts of the platforms under four categories. The first category is systems trade-offs, exploring synergies and competition between different interventions and strategies. Trade-offs can be of financial (where to invest in?), social (how to allocate labour?) or technological (mono- versus inter-cropping?) nature. The NBDC case provides some very good examples of how IPs can support optimization of systems trade-offs. The second category of impacts is IPs focusing on multiple commodities, for example on managing complex crop–livestock–tree interactions. WeRATE from Kenya, and Bubaare and Mukono–Wakiso from Uganda provide good examples. The third category of outcomes and impacts are related to the scaling up of agricultural innovations. Scaling relates to the use of new technologies, dissemination of (scientific) knowledge, collaborations between different stakeholder groups, access to markets, etc. beyond the original IP scope, geographical focus or target audience. Readers interested in learning more about how platforms can reach impact at scale should have a close look at the WeRATE case. As explained, no cases were submitted under the fourth category of learning from failure.

Book outline

The eight following chapters are the case studies of mature IPs selected by the editors from contributions to the competition. Readers are invited to refer to
the readers’ guide above to identify which case studies are more likely to tackle their area of interest along the four components of multi-stakeholder process, content matter, platform support functions, and outcomes and impact.

Chapter 10 provides a synthesis of the key relations and impact pathways that exist between the three components of IPs and outcomes and impacts, as illustrated by the eight case studies featured in this book. The conclusion of the book provides lessons learned from the case studies on how to implement IPs that will deliver impact. It also reflects on the current landscape of mature IPs and tries to answer the question of whether IPs have managed to achieve impact at scale in agricultural development.

References


