

Performance of innovation platforms in crop-livestock agro-ecosystems of the Volta basin in Burkina Faso

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Key Message/ Highlight

- Results from 15 months monitoring of two innovation platforms (IP) established by VBDC V2 project in Burkina Faso show that IP approach is relevant and important for effective linkages between different actors for better access to technical and financial services, and for building capacity of the members.
- A systematic monitoring and documentation of IP activities is indispensable for assessment of its performance and output, and this should be accorded the right place in the running of the IPs.

Abstract

Linear approach to research has had limited success in sub-Saharan Africa and there is need for participatory approach. The CPWF Volta Basin Development Challenge project on integrated management of rainwater in crop-livestock systems (V2) took an overarching innovation platform approach that supports learning and exchange for action research and for scaling up and out of promising best fit rainwater management strategies. Innovation platforms (IP) comprising of multi-stakeholders were established by the project in the project sites in Burkina Faso and Ghana in mid-2011; regular quarterly meetings were organized to identify and prioritize constraints and opportunities to rainwater management in crop-livestock systems and the implementation of strategies to address them. To ensure adequate documentation of IP processes and activities, and for evaluation of the performance of the IPs, monitoring and evaluation tools were developed comprising of register of actors, IP meeting and activity report, and members' assessment of the IP. The data collected during the IP meetings in the project sites in Ghana was of relatively low quality. Hence, the results reported in this paper were from data collected from IP meetings in Burkina Faso. This paper focused on the assessment of the IP functioning in terms of consistency of participation across meetings and stakeholder groups, relevance/interest of IP issues, participation in decision making, information exchange, facilitation and perceived benefits of IP activities. Results from the assessment of the IPs showed that attendance at the meetings ranged from 24 to 42 participants, of which at least 60% were men. In terms of the groups of the participants, the producers accounted for between 30 and 65% of the total participants at the IP meetings in both locations. Other actors in the IPs included trader, processor, credit agency, technical services, researcher and development agency. All the key stakeholders were consistent in participation at the IP meetings except for credit agency in Koubri. Major activities carried out by the IP in Koubri and Ouahigouya as reported by the members included training, soil and water conservation initiatives, linkage to financial and technical services, supply of agricultural inputs, group marketing particularly of onion, animal management and post-harvest management. From the members' assessment of IP

activities, processes and outputs, gender only had significant effect in the score for participation in decision making where women gave lower score than men. For all the indicators for the IP meetings, the lowest score (2.53 ± 0.16 ; score was from 1 (lowest) to 5 (highest)) was observed for the quality of facilitation in Ouahigouya for the meeting of March 2012 while the highest score (4.90 ± 0.06) was for conflict resolution in the IP in Ouahigouya for the meeting in June 2013. Also, for all the indicators the mean scores tended to increase with the lifespan of the IP, that is the longer the lifespan the higher the scores given by the members for its performance. These results suggest that IP approach is not a "quick-win" approach. This raises the challenge of maintaining the interest and participation of relevant actors.

Introduction

There is a general consensus in agricultural research community that linear approach to research has had limited success in sub-Saharan Africa and there is need for participatory approach. For example, many technologies have been generated through agricultural research in sub-Saharan Africa but their impact on productivity and livelihoods of rural households have been sub-optimal (Adekunle et al., 2012). In their review on intensification of farming systems in sub-Saharan Africa, Pretty et al. (2011) rightly observed that productivity increases through improved technologies does not necessarily translate into improvement in livelihood of the rural poor without proper consideration of socio-economic, policy and institutional contexts. Therefore, participation of multi-stakeholders is essential to technology adoption and sustainable intensification of agricultural systems.

To address this issue of technological adoption and participation of multi-stakeholders in agricultural research for development, the Forum for Agricultural Research in Africa (FARA) has promoted the Integrated Agricultural Research for Development (IAR4D) approach based on an innovation systems framework (Adekunle et al., 2012). The agricultural innovation systems approach emphasizes the collective nature of innovation and stresses that innovation is co-evolutionary process, resulting from alignment of technical, social, institutional and organizational dimensions (Kilelu et al., 2013). Increasingly innovation system approaches are also used for commodity value chains, which can be seen as innovation systems comprising different type of actors in which knowledge and/or research products with purchased and farm- or household-provided inputs are: used in natural resource based production systems; marketed and processed for sale and consumed (Adekunle et al., 2012).

Operationalization of IAR4D approach is often through multi-stakeholders platform referred to as Innovation platform (IP). In the context of commodity value chains, the IP is a dynamic and fluid assembly of actors along the chain to support action learning, actors' linkage, provide opportunities to generate innovation and strategies for scaling up and out (Pali and Swaans, 2013). An IP facilitates research and learning that not only generates new knowledge, products or technologies, but also ensures the use of research products (Adekunle et al., 2012). Generally, an IP is a mechanism to enhance communication and innovation capacity among mutually dependent actors, by improving interactions, coordination, and coherence among all actors to facilitate learning and contribute to production and use of knowledge (Pali and Swaans, 2013).

The CPWF Volta Basin Development Challenge project on integrated management of rainwater in crop-livestock systems (V2) took an overarching innovation platform approach that supports learning and exchange for action research and for scaling up and out of promising best fit rainwater management strategies. The objective of this paper is to share experience of using innovation platforms in an ongoing CPWF (Challenge Program on Water and Food) project on integrated management of rainwater in crop-livestock systems in the Volta basin and to draw lessons from the performance of the established

innovation platforms in the project sites in Burkina Faso. Instead of focusing on the outcomes in terms of productivity and sales/income – which are difficult to achieve in the short implementation period – we have mainly focused on the functioning of the platform as a relatively new approach to stimulate innovation through stakeholder interaction. In the long term, the success of the IPs will be assessed by the outcomes in terms of productivity, market access and improvement in livelihoods of the stakeholders.

Methodology

The V2 project sites include Ouahigouya and Koubri districts in Burkina Faso, and Tolon-Kunbungu and Lawra districts in northern part of Ghana. Based on the findings from participatory rural appraisal and value chains analysis, key actors along crop-livestock value chains were identified and brought together to set up innovation platforms in 4 communities in each country but the number of IPs was later reduced to two each in Ghana and in Burkina Faso due to overlap in stakeholders and markets and for better facilitation of the IPs.

Table 1. Main features of the project sites (districts) in Ghana and Burkina Faso

District	Location	Annual rainfall	Major soil types	Major livestock species	Major crops	Market access
Tolon-Kunbungu District	Northern region of Ghana, 15km west of Tamale. 9°-10°N and 1°-2°W	1000 – 1150 mm	Nyankpala and Tingoli series	Cattle, sheep, goats, guinea fowls	Sorghum, maize, rice, millet, groundnut, soybean, pigeon pea, cassava, yam,	Very good
Lawra district	North-West corner of the Upper West Region of Ghana. 10°30'-11°N and 2°-3°W	900 – 1000 mm	Tanchera series	Cattle, sheep, goats, pigs, guinea fowls	Sorghum, millet, maize, rice, cowpea, groundnuts, soybean, yam, potato	Limited
Koubri district	Kadiogo Province of Burkina Faso 12°11'N and 1°24'W	800 mm	Lixisols	Sheep, goat, cattle	Sorghum, millet, maize, cowpea, groundnut	Very good
Ouahigouya district	Yatenga Province of Burkina Faso 13°34'N and 2°25'W	600 mm	Lixisols with gravel overlying	Cattle, sheep, goat	Sorghum, millet, cowpea	Moderate

At the first IP meeting, opportunities and constraints to rainwater management in crop-livestock systems from the baseline studies were discussed and prioritized as well as strategies to improve identified crop and livestock value chains. The promising value chains identified from the value chain analysis were discussed at the IP meeting and prioritized for crops and livestock although the IPs initially had a strong production focus and only at a later stage focused more on market access. The prioritized value chains were sorghum, maize, and cowpea for crops while sheep and goat value chains were selected for livestock. Key actors that participated at the inception IP meeting included farmers (both male and female), traders, livestock keepers, input suppliers, technical and agents, researchers, and non-governmental organizations involved in microcredit. Subsequent IP meetings held quarterly focused

on different issues of interest to the members including soil and water conservation techniques, access to credit, access to technical services, training in marketing of agricultural produce, and monitoring and evaluation of IP processes and outcomes. As indicated before the IP is a relatively new approach to accelerate innovation through stakeholder interaction based on innovation system thinking. Hence, we were especially interested in how well the platform was functioning based on some characteristics that are key to an innovation system approach, i.e. participation of stakeholders, shared vision/focus, relevance of identified activities, information exchange, capacity building, decision making, facilitation, and perceived benefits/incentives (Adekunle et al., 2012; Nederlof et al., 2011).

To ensure adequate documentation of IP processes and activities, and for evaluation of the performance of the IPs, monitoring and evaluation tools were developed comprising of register of actors, IP meeting and activity report, and members' assessment of the IP. These monitoring and evaluation tools were administered at each IP meeting by an enumerator who is proficient in the local language of the IP members starting from 6 months after the establishment of the IP in Koubri and Ouahigouya, that is, from March 2012 up till June 2013. Data collected included the gender of the participants and their groups along the value chains namely producer, trader, processor, credit agency, technical service, researcher and development practitioner (mainly NGO). The data collected during the IP meetings in the project sites in Ghana was of relatively low quality. Hence, the results reported in this paper were from data collected from IP meetings in Burkina Faso. The IP meetings were facilitated by the Netherlands Development Organization (SNV, Burkina Faso) and Fédération Nationale des Groupements Naam (FNGN, a local NGO in Burkina Faso) with backstopping from International Livestock Research Institute (ILRI).

Data analysis was performed with SAS (Statistical Analysis System Institute, 1987) using the Means Procedures for summary statistics and General Linear Model (GLM) procedures for variance and regression analyses for the data on members' assessment of IP. For analysis of variance and regression model, response (dependent) variables were the six indicators of IP performance namely understanding and relevance of issues addressed by the IP, participation in decision making, information flow and sharing among actors, conflict resolution, quality of facilitation of IP and perceived benefit of IP. The independent variables were IP location (Koubri and Ouahigouya), period of IP meeting, actors' group and gender. For the regression analysis, the independent variables were considered as binary categorical variables with value of either 0 or 1. Unless otherwise specified, the level of significance was declared at $p < 0.05$.

Results and Discussion

The results are described and discussed in relation to the main findings of the data collection tools, where different tools refer to the same concept of issues and cross references will be made in discussing these results.

Participants at the innovation platform meetings

At the first and second IP meetings in July and December 2011, the number of participants was between 65 and 97 in both Kourbi and Ouahigouya. To ensure effective facilitation of the IPs and good interactions among the stakeholders, the NGOs (SNV and FNGN) responsible for the facilitation decided to select focal persons of about two to four for each actor's group for participation at the IPs. These focal persons are charged with responsibility of providing feedbacks from the meetings to their members as well as lead the IP activities agreed at the meetings. From the IP meetings in March 2012

onward, the participants were the focal persons from the actor's groups. The number of participants at the IP meetings from March 2012 to June 2013 was consistently high in both IPs and varied from 24 to 35 in Ouahigouya and from 30 to 42 in Koubri (Figure 1). The highest attendance was recorded in Koubri following the training on commercialization and marketing of agricultural produce which actually attracted many actors (March 2013). This suggests that participation at the IP meeting is strong when issues of interest to the IP actors are addressed. Besides, the results also indicate that building capacity in activities that can lead to generation of revenue is of common interest to all actors in the innovation platforms. The lowest attendance observed in Ouahigouya coincided with the peak of cropping season when demand for labour is high for weeding and other farm activities although similar trend was not observed in Koubri. These results suggest that timing of IP meeting will affect attendance and level of participation particularly when more participants are from a single actor category e.g. farmers in this case. There tended to be more participants at the IP meetings in Koubri than in Ouahigouya, which could be partly attributed to the proximity of the communities to the IP meeting venue. In terms of gender of the participants, men accounted for at least 60% of the total participants (Figure 2a & 2b) in both locations. The proportion of women at the IP meetings in Ouahigouya tended to be higher than in Koubri. The number of women at the meetings declined after the IP meeting of March 2012 and then picked up as from March 2013. The domination of men at the IP meetings could be attributed to cultural factors as well as pertinence of the issues addressed at the meetings to women. It could also be that the meetings are held at times that are not conducive for women. These results suggest that IP issues should be gender-sensitive and appealing to ensure good participation by women. However, IP may be used to change some of gender issues at play.

In terms of actors' group, the producers accounted for between 30 and 65% of the total participants at the IP meetings in both locations (Figure 3a & 3b). The farmers were selected by the four project communities (about 3 to 4 farmers per communities) in each district (Koubri and Ouahigouya) to represent them at the IP meetings. Whereas the proportions of producers at the IP meetings in Koubri remained largely the same right from March 2012 to June 2013, the proportions varied significantly for the producers in Ouahigouya from 31 to 65% of the total participants. The actors' group consistently represented at the IP meetings were the producer (crop and livestock smallholder farmers), trader, processor, technical service, researcher and development practitioner (mainly NGOs). Credit agency was only present in one IP meeting (March 2013) in Koubri and that was when the main issue discussed at the meeting was on commercialization and marketing of agricultural produce. The credit agency was consistently present at the IP meetings in Ouahigouya. The development practitioners (NGOs such as SNV and FNGN), traders, and researchers were consistently present at all the IP meetings (Figure 3a & 3b). The participation of the technical services, mainly from department of agriculture in the local district tended to fluctuate. In Ouahigouya, the presence of the technical service declined in the last two meetings (March and June 2013) probably due to dwindling interest. From experience, participation of this actor group is often based on direct benefits, for example payment of per diems.

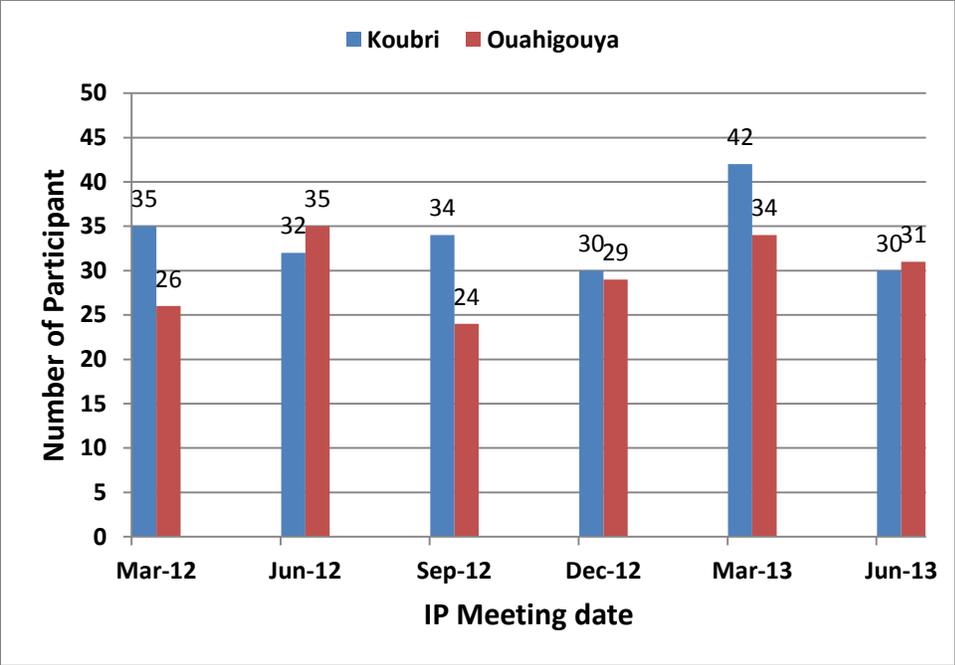


Figure 1. Number of participants at different innovation platform meetings in Koubri and Ouahigouya, Burkina Faso.

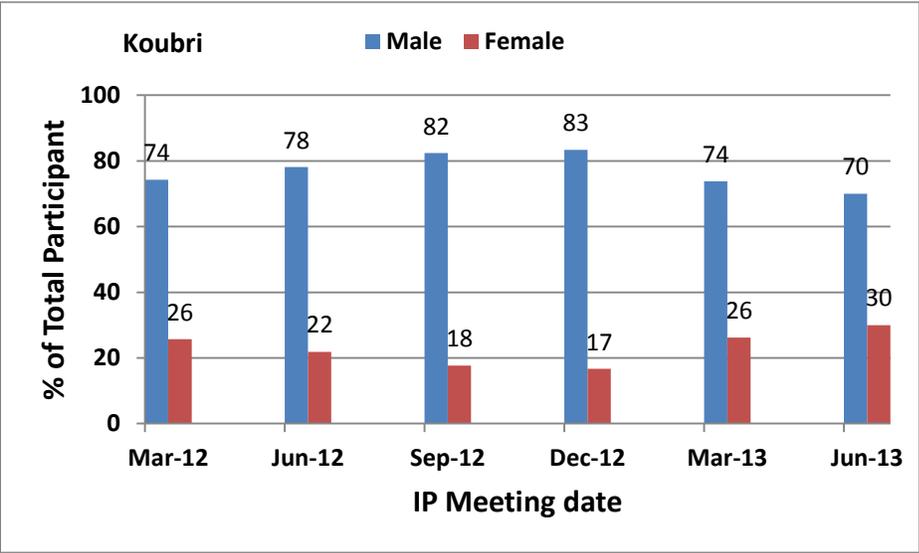


Figure 2a. Gender of the participants at the IP meetings in Koubri

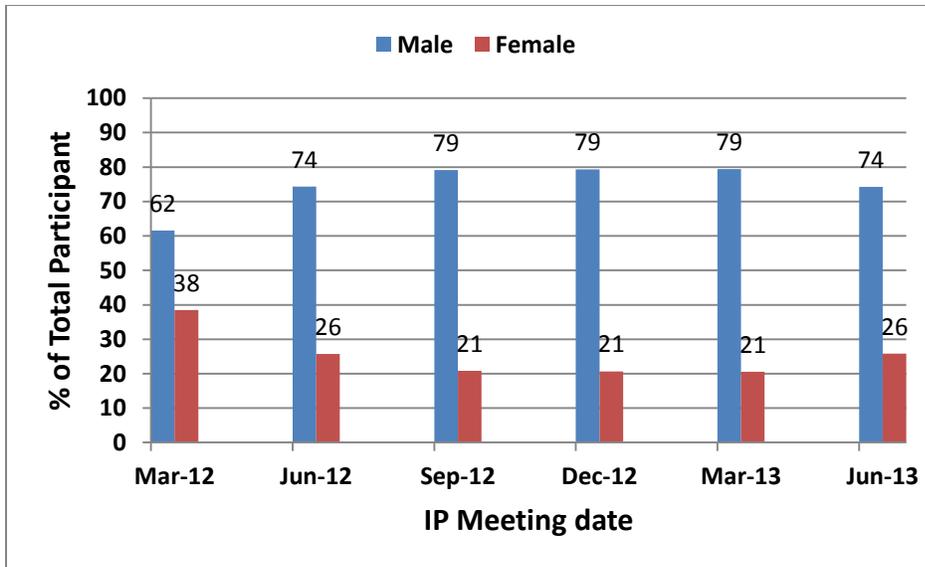


Figure 2b. Gender of the participants at the IP meetings in Ouahigouya

Generally, all the key actors were present in all the meetings in Ouahigouya which could be attributed to the strong presence of FNGN (the local NGO responsible for the facilitation of the IP meetings) at this site. These show that issues being addressed at the innovation platforms partly determine the types of actors that are involved. The results also confirm that though innovation platform around agricultural issues is meant for multi-stakeholders it is often dominated by the producers which could be explained by the fact that most IPs are set up by projects with focus on smallholder producers. Domination by producers could also be explained by the fact that in any value chain, there is a need to focus initially on increasing production to satisfy market demand. Another lesson from the results is the important role of the facilitator in ensuring the participation of the different actors in the IP meetings. However if the issue being addressed is of particular interest to members, participation will be equally high and consistent, irrespective of the effectiveness of facilitation.

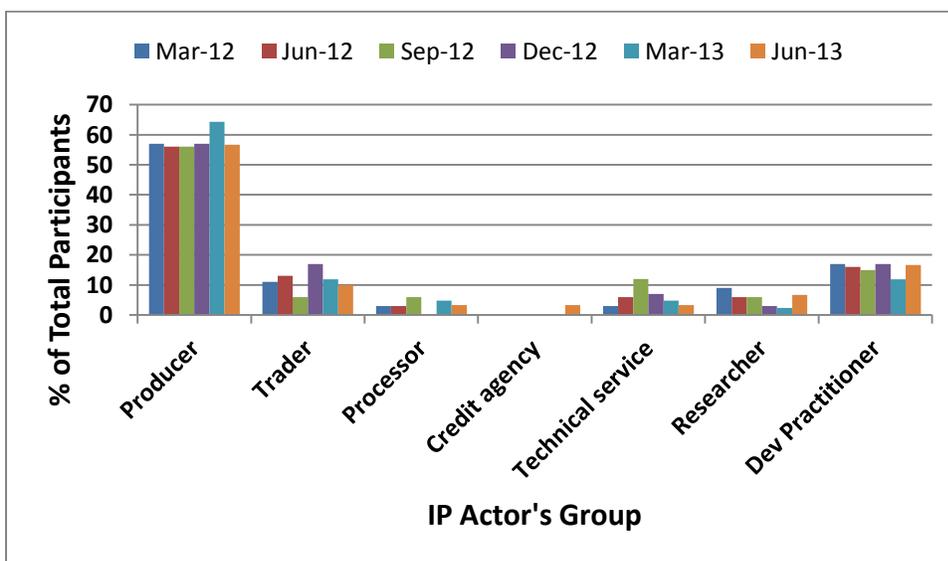


Figure 3a. Participants at the IP meetings in Koubri by actors' group.

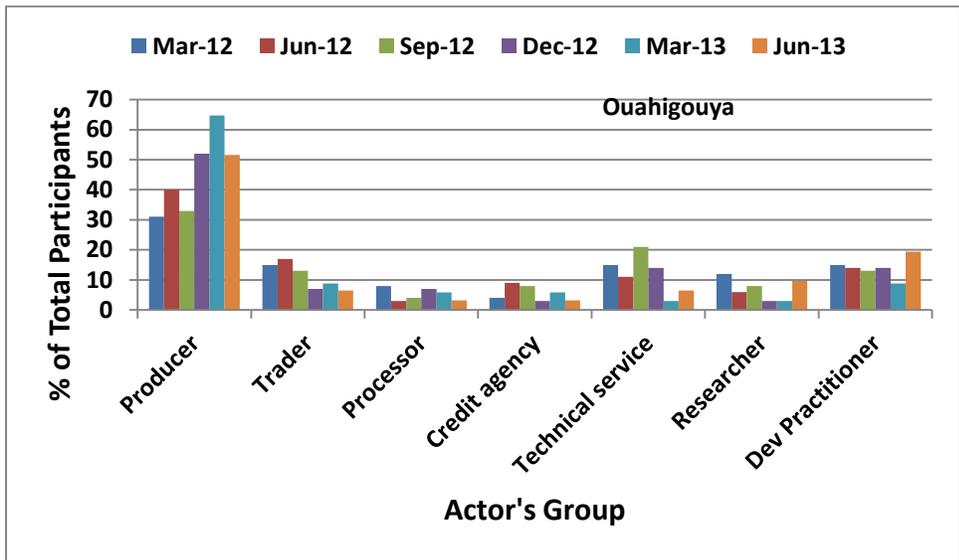


Figure 3b. Participants at the IP meetings in Ouahigouya by actor's group.

Major activities carried out by the innovation platforms

Major activities carried out by the IP in Koubri and Ouahigouya as reported by the members included training, soil and water conservation initiatives, linkage to financial and technical services for technical information on agricultural production practices and access to credit, supply of agricultural inputs, group marketing particularly of onion, animal management and post-harvest management (Figure 4).

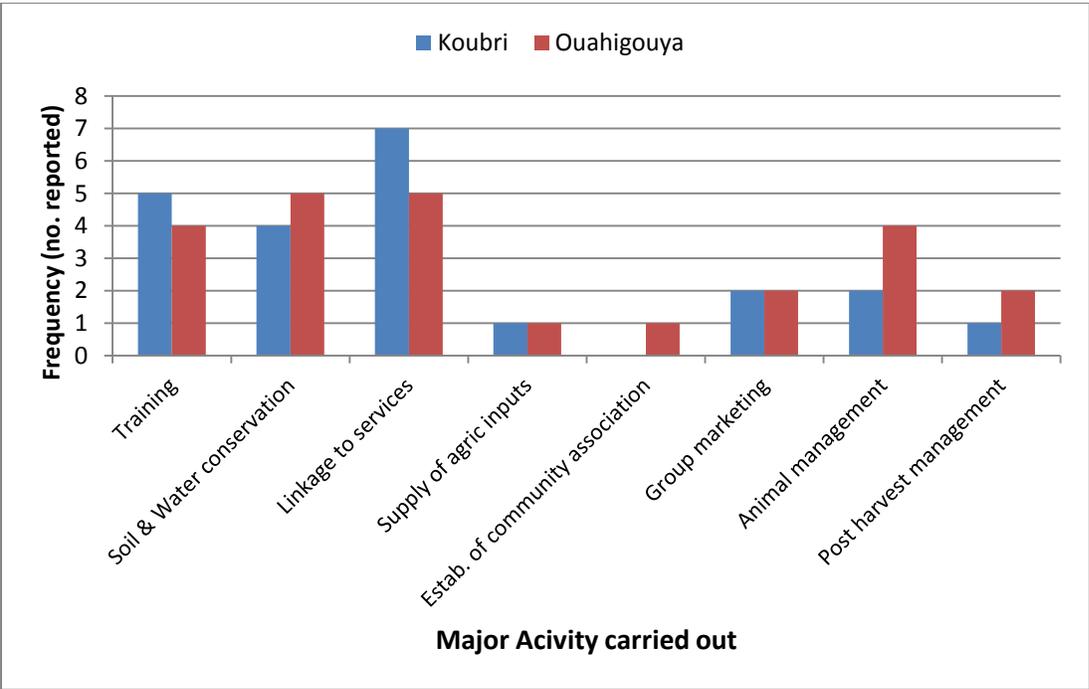


Figure 4. Major activities carried out by the innovation platform in Koubri and Ouahigouya as reported by the IP members in the activity protocol

Training of the IP members was on commercialization and marketing of agricultural produce, soil and water conservation techniques (stone bunding, zai and composting). Soil and water conservation activities carried out by the IP members in both locations included stone bunding, digging well and composting. Though these activities are not new to the IP members, the innovative aspect was the collective implementation of these activities by members from different communities and the involvement of the technical agents providing necessary advisory services. Linkages to services essentially entailed linking certain actors to another in the IP and this specifically involved linking the producers to technical services (agricultural, livestock and environmental services) for technical information on agricultural production practices such as improved soil fertility management techniques, crop pests control, diagnosis of animal diseases and to financial services (credit agency such as “Caisse Populaire”) for information on access to credit. The linkages were often done through the facilitation of FNGN and SNV. In the interactions between the producers and credit agency, the conditions of access to loan were explained to the farmers even though the feedback from the producers was that the conditions are difficult to meet, particularly the need for collateral to obtain loan. Activities under animal management included construction of corralling pen and park for the animals to prevent damage to crops in the cropping season and to minimize theft. Post-harvest management of crop included storage of grains, collection of crop residues, particularly legume residue for animal feeding. Supply of agricultural inputs (fertilizer and improved seed of sorghum, millet and cowpea) was carried out only once by INERA before the cropping season of 2012. In Ouahigouya, the IP established a community association called “Kolweoogo” in Moore to control abusive cutting of trees and to reduce conflict. This shows that IP is dynamic and flexible, and can lead to formation of association or unit to address specific problem of the members.

In both IP locations, linkage to technical and financial services had the highest frequency based on report of IP activity. This was followed by soil and water conservation, and then training. The activity on group marketing of onion was triggered by the sharp fall in price in 2012. These results showed that one of the objectives of the establishment of the IP which was to promote better linkage of producers to technical and financial services was being realized. Whereas the technical advisory services in terms of crop and livestock production were of direct benefit to the farmers, the same was not the case regarding financial services where IP actors (mainly producers) were provided the information on conditions of access to credit but could not benefit from this service due to lack of collateral. Another lesson from the results is that building the capacity of the IP members is critical to sustaining their interest. The sustained interest of the producers in the IP meetings could partly be explained by the training provided. These results illustrate the twins challenge of meeting different interests of multi-stakeholders’ and sustaining the interest of different actors over a long period in the platform although it may not be necessary that all stakeholders are present in each meeting depending on the issues being addressed.

Members’ assessment of the IP activities, processes and outputs

To assess the performance of both IPs in terms of activities carried out, processes and outputs, a semi-structured questionnaire was administered at the end of every IP meeting from March 2012 to June 2013. The interviews were conducted at the end of the IP meeting for maximum coverage of members which would have been difficult to achieve if the interviews were to be conducted after they have dispersed to their different communities. Members representing all the actors’ groups at the IP were asked to score individually the IP from 1 (minimum) to 5 (maximum) on a number of criteria namely understanding and relevance of the IP goals and issues addressed, extent of participation in decision making at the IP, extent of information flow and sharing among the actors, conflict resolution within the

IP, articulation and coordination of IP plans and activities, usefulness of IP activities and achievement of the IP goals. These criteria were classified into six indicators for the assessment of the IP and the results are presented in Table 2 by IP location and period (date) of the meeting. IP location did not have significant effect on the IP performance for all the indicators except for facilitation in which case the average score for Ouahigouya was lower than that of Koubri for the IP meeting of March 2012. This difference can be attributed to different FNGN teams responsible for the facilitation of the meeting at the two locations. This difference was corrected after the meeting of March 2012 by using the same team to facilitate the meetings. The results confirm the significant effect of the personnel involved in the facilitation on the IP performance. This underscores the necessity of having facilitation skills to ensure effective coordination of the IP activities and where the skills are missing, necessary training should be provided. For all the indicators for the IP meetings, the lowest score (2.53 ± 0.16) was observed for the quality of facilitation in Ouahigouya for the meeting of March 2012 while the highest score (4.90 ± 0.06) was for conflict resolution in the IP in Ouahigouya for the meeting in June 2013 (Table 2).

Overall, the members tended to score conflict resolution higher than other indicators. High scores for conflict resolution suggest that IP has helped to keep a lid on previously serious conflicts that existed among members prior to the formation of IPs. The results may also suggest strong conflict prevention ability of the IPs through focus on issues of common interest to the stakeholders. These results confirm that conflict is minimal where there is shared goal and common interest. Therefore, IP should always be established with clear goals and members should be composed of those with common interests. The scores by the members for understanding and relevance of issues addressed at the IP meetings were also consistently high after those for conflict resolution which affirm the relevance of IP approach in bringing multi-stakeholders together to achieve a common goal. For all the indicators, the mean scores tended to increase with the lifespan of the IP, that is the longer the lifespan the higher the score given by the members for its performance. These results are expected because with passage of time the relevance and benefit of IP activities become clear and concrete. These results also demonstrate that it may take reasonable length of time for IP to deliver concrete benefits, which implies that IP approach is not a "quick-win" approach. This raises the challenge of sustainability of IPs which are often established and funded by projects of short term duration.

The results of the regression analyses of the six indicators of IP performance (response variables) on the independent variables (IP location (Koubri and Ouahigouya), period of IP meeting, actors' group and gender) are presented in the equations for the average scores below for each indicator (only variables that are significant at $p < 0.05$ are included; means \pm standard error). These regression results should be interpreted with caution as they were based on perception of the IP members and the R^2 is generally low for all the indicators. In the equations, the IP location, meeting dates, actors' group and gender are abbreviated as follows: L1 = IP location Koubri; L2 = IP location Ouahigouya; IP3 = Meeting in March 2012; IP4 = Meeting in June 2012; IP5 = Meeting in September 2012; IP6 = Meeting in December 2012; IP7 = Meeting in March 2013; IP8 = Meeting in June 2013; Actor2 = Producer; Actor3 = Trader; Actor4 = Processor; Actor 7 = Credit agency; Actor 8 = Technical services; Actor 10 = Researcher; Actor11 = Development practitioners; Male = Gender1; Female = Gender2.

1. Understanding and relevance of IP issues: $4.18 \pm 0.07 + 0.20 \pm 0.10 \text{ IP8} - 0.36 \pm 0.13 \text{ Actor8}$ ($R^2 = 0.15$)
2. Participation in decision making: $4.01 \pm 0.06 - 0.20 \pm 0.06 \text{ L2} + 0.29 \pm 0.09 \text{ IP6} + 0.36 \pm 0.10 \text{ IP8} - 0.24 \pm 0.11 \text{ Actor3} - 0.30 \pm 0.12 \text{ Actor8} - 0.21 \pm 0.08 \text{ Gender2}$ ($R^2 = 0.43$)

3. Information flow and sharing: $4.06 \pm 0.05 + 0.29 \pm 0.11 \text{ IP6} + 0.29 \pm 0.11 \text{ IP8} - 0.66 \pm 0.14 \text{ Actor8}$ ($R^2 = 0.41$)
4. Conflict resolution: $4.33 \pm 0.05 + 0.51 \pm 0.14 \text{ IP8} - 0.69 \pm 0.31 \text{ Actor7} - 0.68 \pm 0.17 \text{ Actor8}$ ($R^2 = 0.35$)
5. Facilitation of IP: $3.80 \pm 0.06 - 0.37 \pm 0.07 \text{ L2} + 0.24 \pm 0.10 \text{ IP6} + 0.51 \pm 0.11 \text{ IP8} - 0.38 \pm 0.11 \text{ Actor3}$ ($R^2 = 0.46$)
6. Perceived benefit: $3.86 \pm 0.05 - 0.17 \pm 0.07 \text{ L2} + 0.48 \pm 0.10 \text{ IP8} - 0.28 \pm 0.11 \text{ Actor3} + 0.47 \pm 0.20 \text{ Actor10}$ ($R^2 = 0.41$)

From the equations, gender only had significant effect in the score for participation in decision making where women gave lower score than men. The results suggest that the IP meetings were dominated by men in terms of participation in decision making which could be attributed to cultural factors as well as the high proportion of male at the meetings. To ensure gender equity in participation in decision making in the IPs, it is necessary to involve more women than the present situation by addressing issues of interest to them. Compared to IP in Koubri, the members of IP in Ouahigouya gave lower score to participation in decision making, quality of facilitation of IPs and perceived benefit of the IP. This may be attributed to long exposure to development projects by people in Ouahigouya compared to Koubri which might have made the IP members in this site to be more critical in their assessment of the IP activities. In both IP locations, the technical services group gave lower score to the six indicators compared to the producer's group. This shows that the technical services are more critical of the performance of the IP than the producers. This was expected as most of the IP activities were targeted at the crop and livestock producers. To engage the technical services in the IPs and sustain their interest, it is necessary to include activities that are of interest to them for example training in their technical domains or remunerate them for services provided to producers in the IP. The results also showed that the researchers gave higher score for the perceived benefit of the IPs than the producers. This is expected because this group and the development practitioners were responsible for the establishment of the IPs and might have strong justification to show that the IP is beneficial to all the actors. The scores for the six indicators for the IP meeting in June 2013 were significantly higher than the scores for the meeting in March 2012 which again confirms that IP tends to perform better with more time to carry out its activities.

Conclusion

Assessment of innovation platform activities in V2 project sites in Koubri and Ouahigouya, Burkina Faso shows that innovation systems approach is relevant and important for effective linkages between different actors for better access to technical and financial services, and for building capacity of the members. Performance of IP activities seems to improve with lifespan of the IPs which underscores the necessity of long-term plan for the established of IPs. To ensure effective participation of different actors at the IP, issues being addressed should be of common interest and should be clearly articulated. Therefore, there should be concerted efforts by the facilitators of the IP to engage all the actors and avoid domination by any group. Facilitation is critical to IP performance as shown by the results of the members' assessment; it is therefore pertinent to ensure that the facilitation team has the required skills which raises the issue of long-term sustainability of facilitation and the need to transfer facilitation skills to members of the IP so that they can self-facilitate. In addition, a systematic monitoring and documentation of IP activities is indispensable for assessment of its performance and output, and this should be accorded the right place in the running of the IPs.

Table 1. Members' assessment of performance of the innovation platform in Koubri and Ouahigouya, Burkina Faso from March 2012 to June 2013. The score is between 1 (lowest) and 5 (highest). Results presented are means \pm standard error.

IP Location	IP meeting & number of respondent	Indicators of IP performance					
		Understanding of IP goals & issues	Participation in decision making	Information flow and sharing among actors	Conflict resolution	Quality of facilitation of IP	Benefit of IP
Koubri	Mar 2012; n=31 [‡]	3.89 \pm 0.08 ^b	3.69 \pm 0.09 ^b	3.74 \pm 0.08 ^b	3.74 \pm 0.15 ^b	3.62 \pm 0.07 ^{ab}	3.54 \pm 0.08 ^b
	Jun 2012; n=30	4.68 \pm 0.07 ^a	4.22 \pm 0.08 ^a	4.67 \pm 0.08 ^a	4.60 \pm 0.13 ^a	3.78 \pm 0.10 ^{ab}	4.18 \pm 0.11 ^a
	Sep 2012; n=26	4.17 \pm 0.08 ^{ab}	4.02 \pm 0.10 ^a	4.06 \pm 0.12 ^{ab}	3.96 \pm 0.13 ^b	4.03 \pm 0.12 ^a	4.0 \pm 0.12 ^a
	Dec 2012; n=24	4.21 \pm 0.11 ^b	4.21 \pm 0.13 ^a	4.23 \pm 0.16 ^{ab}	4.17 \pm 0.17 ^{ab}	4.07 \pm 0.15 ^a	4.10 \pm 0.13 ^a
	Mar 2013; n=26	3.90 \pm 0.11 ^b	3.62 \pm 0.09 ^b	3.84 \pm 0.09 ^b	4.81 \pm 0.08 ^a	3.61 \pm 0.08 ^{ab}	3.40 \pm 0.08 ^b
	Jun 2013; n=18	4.58 \pm 0.19 ^a	4.28 \pm 0.15 ^a	4.47 \pm 0.15 ^a	4.61 \pm 0.16 ^a	4.19 \pm 0.16 ^a	4.25 \pm 0.14 ^a
Ouahigouya	Mar 2012; n=25	3.75 \pm 0.13 ^b	3.31 \pm 0.09 ^b	3.75 \pm 0.16 ^b	3.64 \pm 0.20 ^b	2.53 \pm 0.16 ^b	3.21 \pm 0.12 ^b
	Jun 2012; n=26	4.33 \pm 0.13 ^a	3.98 \pm 0.11 ^a	4.40 \pm 0.12 ^a	4.31 \pm 0.22 ^a	3.65 \pm 0.10 ^a	4.06 \pm 0.08 ^a
	Sep 2012; n=18	3.94 \pm 0.19 ^{ab}	3.83 \pm 0.22 ^{ab}	3.58 \pm 0.28 ^b	3.78 \pm 0.13 ^b	3.67 \pm 0.21 ^a	3.81 \pm 0.21 ^a
	Dec 2012; n=25	4.14 \pm 0.09 ^a	3.99 \pm 0.34 ^a	4.32 \pm 0.15 ^a	4.08 \pm 0.18 ^{ab}	3.66 \pm 0.12 ^a	3.68 \pm 0.11 ^a
	Mar 2013; n=17	4.12 \pm 0.09 ^a	3.51 \pm 0.09 ^b	3.64 \pm 0.09 ^b	4.71 \pm 0.19 ^a	3.32 \pm 0.08 ^b	3.35 \pm 0.08 ^b
	Jun 2013; n=22	4.16 \pm 0.10 ^a	4.04 \pm 0.13 ^a	4.18 \pm 0.09 ^a	4.90 \pm 0.06 ^a	3.98 \pm 0.13 ^a	4.20 \pm 0.15 ^a

^{a,b}Values with different superscript letters denote significant difference ($p < 0.05$) between means within the column for each IP location

[‡]March 2012 meeting is the third IP meeting.

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