

# CPWF Innovation Funds Project Completion Report

Project Title: Oiling the wheels of innovation: seed funds for  
local Innovation Platforms

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March, 2013

For submission to:



CGIAR Challenge Program on  
**WATER & FOOD**

Andes • Ganges • Limpopo • Mekong • Nile • Volta

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## **Introduction**

The project provides a small fund for three Innovation Platforms established under CPWF-NBDC (Nile Project 2) to pilot rainwater management interventions in three woredas: Diga and Jeldu in Oromia, and Fogera in Amhara Region. The purpose of the platforms is to support local stakeholders to work together, using a variety of knowledge sources, on developing approaches to rainwater management plans which are participatory in nature, tailored to local livelihoods and environmental conditions, and which meet the needs of different stakeholders. This builds on findings of the N2 baseline research which found that planning for natural resource management was highly top-down in nature and centred on achieving quotas allocated from above, with limited opportunity for stakeholders at woreda or kebele level – let alone farmers themselves – to influence decisions.

The rationale for providing a pilot fund for each platform was to enable some small concrete actions to be taken which would make the platform more than a ‘talking shop’ and hopefully demonstrate the benefits of collaborative ways of working. It also provides an opportunity to study the workings of the platforms in action and to discover more about the power dynamics in play within the platforms and between platforms and communities, and to learn about the effectiveness of innovation platforms as an approach to research and/or development implementation projects.

Each fund was to be awarded on the basis of a proposal from platform members, with the criteria that interventions to be funded should be participatory, evidence-based, tailored to local social and environmental conditions, and cross-sectoral in nature (i.e. in line with the broader objectives of the NBDC project).

At the time of platform establishment, ILRI, IWMI and ODI were actively engaged in the design of platforms and the decision to seek this fund. Since then, ILRI have carried out the bulk of work in supporting platforms and facilitating the process of innovation design and implementation, as new staff were taken on and their presence in Ethiopia made them well placed to do so.

### **1. Achievements, Project Implications/Impacts**

All three platforms collaborated to develop proposals for action and implementation is well established, having benefited from intensive facilitation and support activities by ILRI staff. All three platforms have independently decided to focus on aspects of livestock feed/grazing management. These interventions were identified to fill a gap in ongoing government (and in one case donor) soil and water conservation projects in the three sites, with the simultaneous aim of conservation and improving livestock feed availability by planting appropriate multi-purpose species. The link with ongoing interventions is a strategic decision which is likely to maximize the impact of the fund and ensure that the innovation platforms engage with the wider realities of ongoing campaigns and donor programmes. It has also been a successful approach in terms of ensuring the commitment of government officials in activities which – in themselves – are seen as relatively small scale. Full details of plans and implementation status are given below for each site.

Progress has thus been good. The 6 month report noted that further support was required to ensure that the activities are undertaken in a truly participatory manner. ILRI provided training in participatory planning to platform members and led community engagement exercises which helped to enhance community members' voices, but there was still room for further improvement in terms of community representation in the platforms. Furthermore, community members had a limited understanding of the overall project goals and the platform approach and government officials were implementing the pilot in a fairly traditional manner. For this reason, ILRI support has since focused on bridging the participation gap through ongoing close work with platforms and communities, building on previous community engagement and participatory video exercises. New facilitators for the platforms were engaged in all three sites (staff of local NGOs) who have been supported to promote participatory approaches and work with communities.

Community engagement work has included:

- Holding of farmer field days.
- Use of the participatory 'WAT-A-GAME' tool to develop water management strategies (for scaling up the small scale pilots), with both communities and IP members.
- Training for IP members in participatory planning.

We are also learning from emerging findings of political economy research conducted in the three sites, focusing on the nitty gritty of how power and representation has played out in the pilot projects and how this affects the distribution of impacts from the pilots. This is currently being written up and will greatly help in developing strategies for scale out that bring wide and equitable benefits.

### **Fogera**

In Fogera, the focus was to control free grazing in order to make soil and water conservation efforts more effectively. Initially, an area of communal grazing land close to conservation structures was selected for exclusion of livestock, in Gebre Gesa. However, the site was changed in response to the preference of local communities, and an area enclosure was eventually established in Libichosh Got (Woje Awramba kebele, in the Gunguf watershed), where free grazing was identified as a severe problem. The land enclosed over 3.75 ha and involved 60 people in 13 households. 2 ha of backyard were also planted with fodder. The IP facilitator reports that lecturers from Bahir Dar University, researchers and experts from Adet and Andassa Agricultural Research Institute, farmers, EWNRA staff and ILRI/IWMI staff were all actively involved in developing this demonstration site.

Fodder species have been planted in the enclosure, including *vetiver grass*, *pigeon pea*, *cowpea*, *suspania* and *elephant grass*, for cut and carry as well as land rehabilitation purposes. To enable successful intervention, seeds and tools were distributed to farmers and various types of training were given (see below under Capacity development activities). Experience sharing with other farmers and researchers has also been undertaken through farmer field days and events at the Andassa Livestock Research Centre and Adet Agricultural Research Centre in Amhara Region. Both technical experts (government, Universities and research organisations) and farmers have reportedly gained new skills and changed their perceptions.

In total around 9 tons of fodder has been harvested, and 11 cattle fattened, under the project. Challenges, however, remain around shortages of seed.

Farmers are now discussing whether enough high quality fodder can be produced to enable diversification to new breeds of cattle. Thus, there is one eye on the market opportunities which may be created by the intervention, and a sense that it has considerable potential, although currently no clear plan to diversify to new cattle breeds. The platform also plans to introduce improved forage species for backyard cultivation in upland areas. Sites for this are yet to be identified.

The local community has also developed by-laws to govern use of the enclosed area. This has stimulated some debate, with different community members holding different views depending on their dependence on use of this land. Some argue that the land should be opened during the dry season when there is currently fodder shortage, for example, while others are concerned that the proposed penalties for encroaching into the restricted grazing area are too high. The ILRI team is engaged in supporting the platform on an ongoing basis to engage communities in-depth and critically reflect on the decision-making processes adopted by the platform and the distribution of benefits. The project is at an early stage – the enclosure has been in place for less than a year - so such debates are to be expected. The key is to continue to support platform members to manage these effectively over the second year, and to better understand the diversity of livelihood needs and priorities both among households directly involved in the project, and those in the surrounding area. The research findings of the political economy study, as well as frequent discussions with the IP and community members, will help to ensure this.

### ***Diga***

In Diga, interventions were planned by a group comprising:

- Agricultural development offices of zone and woreda
- Livestock development offices of zone and woreda
- Bako Agricultural Research Centre
- Wollega University
- Ethiopian Evangelical Church Mekane Yesus Development and Social Service Commission Dapo and Dembi kebele farmers' associations

Diga IP platform identified 40 farmers take part in forage development interventions in communal, private grazing land and backyards, in two kebeles: 20 from each Dambi and Dapo. These areas were selected due to their significant land degradation – due to a combination of deforestation, soil erosion, overgrazing and termite infestation. The area faces a shortage of grazing land, and what there is overgrazed, eroded and offers only poor quality grazing which disappears in the long dry season. In degraded grazing land, a combination of *Rhodes* grass and strips of *Elephant* grass and *Chomo* grass have been planted, following training provided for farmers at a nursery site in July 2012. Especially *Chomo* grass was discovered by study and from farmers' experience that it is termite resistance fodder grass which attracted the attention of farmers in Diga. The platform has now proposed to conduct a baseline assessment of vegetation and trees in the area, so that uses can be better determined and the impact of the intervention assessed in future.

Discussions are ongoing on the formulation of by-laws for joint management of the communal grazing land. In backyards, *Sesbania*, fodder beet, *lablab* and *vetiver* (for conservation) have been planted. Farmers and IP members are observing how far these approaches could ease the livestock feed shortage and provide an adequate supply of hay.

Farmers were selected to participate in the pilot based on criteria including:

- Their interest in innovation
- Longstanding residence in the area
- Ownership of animals, grazing and/or farm land
- Evidence of successful management of their land and production
- Facing a shortage of fodder for their livestock

The IP Technical group members provided training for selected farmers, and distribution of seeds and seedlings was organized by the Agricultural Development Office. The IP technical group members first created awareness on why the intervention was required and what their IP's role would be, and conducted a quick assessment on the socio-economic condition of the selected farmers. A step by step training was delivered to farmers, starting by creating knowledge about land preparation, input requirements and utilization practices of the fodders at different times. Plant species were selected for high yield, high ratio of leaf-to-stem, and ease of cultivation. Planting was completed in August 2012. Germination was quick and results were seen in the form of growing plants, within 7 days of planting seeds. However, ongoing termite infestation has proved a challenge – in spite of the ongoing termite project also taking place in the area – and has caused some damage to the plants. The IP facilitator reports that 85% of elephant grass, 70% of subsanea and 25% of leucanea show good survival condition. Seed harvesting has already begun, with 29kg of seed harvested and stored for the next sowing season. Over 1.5 tonnes of hay have been cut, and the farmers which started to feed their animals using the fodder reported improved milk and butter yields. Remaining challenges include the fact that cattle belonging to neighbouring farms (not included in the intervention) continued to stray and graze the planted fodder. Controls which go beyond the immediate scale are therefore required to make the intervention effective. Shortages of seed have also been reported as a challenge, but it is to be hoped that the seed harvested for replanting will help to alleviate this.

Following planting, a by-law was established by a committee formed from the two kebele administrations. As in Fogera, a farmer field day has been held (in October 2012) to introduce the project to new farmers. This has stimulated considerable interest among other farmers to be part of a scaled up intervention. The IP has been asked to scale up in the next growing season and reports that all enrolled farmers want to increase the amount of land planted, while other farmers also want to participate.

### **Jeldu**

In Jeldu, a socio-economic survey and awareness raising meeting (attended by 130 people) were held within the selected project site (Melka watershed) in order to develop detailed activity plans. It was agreed that priorities were to tackle soil erosion, declining productivity and a shortage of fodder, by working to control grazing, ensure terracing work was meaningful, and plant fodder tree species on soil bunds. Trilucern, Bana, Desho and

Elephant grass were selected as appropriate multi-purpose species. Farmers were selected to participate based on:

- Willingness to participate
- Previous experience with soil and water conservation
- Ownership/use of degraded land
- Ownership of livestock/land
- Experience on shortage of animal feed

In addition, a number of model farmers were selected due to their role in promoting new approaches to others. On the basis of this, 96 farmers were selected to participate in fodder development pilots, and almost 200,000 seedlings have been purchased/ donated and distributed. Planting has been conducted on existing soil and water conservation structures (34%), in backyards (44%) and on farmland (23%). Training was provided to the involved farmers (see more details below). Some months after planting, a farmer field day was organised to introduce the project to neighbouring farmers and share lessons. 141 farmers from four neighbouring kebeles attended. Of particular interest was a farmer who has been growing fodder species in his backyard to generate income. Farmers from the other kebeles are interested in scale up of the intervention and some have committed to planting fodder species themselves in the next growing season.

Change has been seen among participating farmers. 30% of them are reportedly now feeding animals by cut and carry mainly from Desho grass. The remaining 70% are said to have well established plants on the soil bund, although feeding by cut and carry has not yet begun.

A by-law is now in development to control free grazing to ensure that structures of soil and water conservation are maintained and to prevent overgrazing. It has been noted that imposing a law from above to control grazing is likely to be ineffective; rather, elders, religious leaders and cooperative members should be involved in discussion to identify appropriate solutions. The need to engage the wider community in the project as a whole – as well as just selected farmers – has also been identified. However, some concerns are emerging that the by-law has still been developed in a slightly top-down fashion. According to reports in recent platform meetings, neighbouring farmers are paying attention to what is being tried, and have expressed an interest in adopting similar activities, although many are waiting to see the longer term benefits of the pilot before adopting. Remaining challenges that have been identified include some technical support needs, and – as in Fogera – ensuring full consideration of farmers' views in project design and decision-making.

## **2. Activities Completed**

Since the initiation of the fund, ILRI teams have supported four platform meetings in each site, introducing the fund and guiding the platform through the process of proposal development. ILRI also provided substantial support to platforms in between meetings to maintain momentum and support the development and planning of the innovations. Platform facilitators have been identified and contracted – who are responsible for managing the pilots – and various platform members have received training in participatory planning methods, action research and platform facilitation skills.

One change to the proposed approach is that rather than each platform producing several different proposals for competitive selection, the platforms decided to rather work through a joint process of problem identification, prioritisation and proposal development leading to the production of a single proposal for each site. This was principally to ensure broad ownership and discussion of the proposal by the platform, and to avoid members investing time in proposals which would not ultimately be funded. It also allowed a strategic approach to be taken to building on existing interventions (government soil and water conservation campaign) in the three sites. The specific activities in each site have been outlined above under 'Impacts'.

Each of the facilitating NGOs was also responsible for monitoring the success of the interventions, using a template developed by ILRI and ODI. One of the Development Agents from each intervention site was also given use of a camera, to document the day to day progress of the fodder intervention. The resulting photographs will be used to produce photo films for documentation and knowledge sharing. Their reports have been used in the preparation of this report.

Finally, two photo stories have been created documenting the Jeldu interventions, with more planned for Diga and Fogera.

### **3. Lessons Learned**

- A key lesson learned so far is that participatory processes need intensive and ongoing support. Without this, there is a risk that these interventions will revert to a typical top-down mode of implementation.
- Clear mechanisms are needed to ensure fuller participation and awareness of community members on the interventions and to ensure they have a voice in decision-making by the platform. This was reported in the 6-month report.
- Since then extensive work has been undertaken in this area, but it is clear that transformation of ways of working is a long term goal which cannot be expected to result immediately from the establishment of platforms, especially with the limited time of project staff to engage actively at community level.
- If the intervention were to be repeated, a more extensive community engagement exercise might be built in to the design of the pilots – however this would require intensive support outside the platforms, which itself carries costs and risks.
- The ILRI coordinators have advised that it is worth considering recruiting a full time coordinator, to be based in the site. This would help maintain a good relationship between the coordinator and IP members for regular updating, and also close coordination. He/she would be able to ensure regular participation of each IP member, to build consistent knowledge and skills and enhance the functioning of the platform.
- Another clear emerging lesson is that these interventions have broadly been popular with the farmers involved, and that there is an appetite for scale-up. Both farmers and IP members have shown interest and commitment to experimenting to address NR-related challenges in their area, and IP members report that they value the IP process. Facilitators have also commented that the multi-stakeholder approach enabled smooth skill transfer to farmers. IP members have now developed an action

plan to continue the pilot project for another year by taking and considering all the lessons drawn from the first year intervention.

- On a practical note, the three interventions indicated the importance of timing funds for pilots of this type according to the agricultural calendar. In all three sites, by the time funds were disbursed it was already into the rainy season, which is not ideal for planting and some plants may have been lost due to this.
- The details given above of interventions in the three sites have shown what can be achieved with small seed funding for local platforms. Although some challenges remain, this is to be expected when trying to tackle complex NRM problems involving multiple stakeholders. This can be seen positively as generating important learning both for the NBDC project team – who are now in a much better position to understand power dynamics and ways of working in the IP and the community, and to continue their support to more participatory, integrated approaches – and indeed to other projects seeking to use similar platforms. This kind of learning was one of the core goals of this project. Without funds to enable the IPs to implement anything, they would have remained talking shops with little potential for translation into action.

## Attachments

### 1. Research publications and communication outputs

List (in the table below) all outputs produced within the scope of the innovation funds project. Please provide a copy of the output or the web link, including links to pre-prints of journal articles. Possible output types are:

- a. Books and Book Chapters<sup>1</sup>
- b. Journal articles (include articles that have been submitted<sup>2</sup>)
- c. Research Reports (working paper, consultant's report, discussion paper, project reports, etc)
- d. Student theses
- e. Conference and Seminar Papers
- f. Posters
- g. Policy briefs, briefing papers
- h. Reference materials (booklets and training manuals for extension agents, etc.)
- i. Articles for media or news (radio, newspapers, newsletters, etc.
- j. Social media outputs, including web sites, blogs, wikis
- k. Videos
- l. Data and information outputs, including datasets and databases
- m. PowerPoint presentations ( except the internal project presentations)
- n. Other (specify)

Output Type (see above)	Reference (Author, year, title/ output name, etc.)	Target audience	How disseminated / promoted / used	Any feedback on use, or how monitored/ evaluated
B	Draft journal article currently in preparation for submission to a special issue of Innovation and Development (will be subjected to peer review before publication) Cullen, B., Tucker, J., Snyder, K., Amsalu, A., Lema, Z., & Duncan, A. 2013. Innovation Platforms, Power, Representation and Participation: Lessons from the Blue Nile Basin, Ethiopia		Accepted for presentation at Innovation for Development conference in Manchester	

<sup>1</sup> Please indicate if these are peer-reviewed or not.

<sup>2</sup> Please indicate if these are peer-reviewed or not.

C	Working paper in preparation			
K	ILRI, 2013, 'Farmers use Desho grass to feed livestock in the Ethiopian Highlands', photo film		<p>Displayed on NBDC website &amp; ILRI BlipTV</p> <p>Shown to NBDC national platform stakeholders</p> <p>Shown to a range of national and international stakeholders in UNEP climate change adaptation workshop</p>	
K	ILRI, 2013, 'Growing Desho grass to feed livestock in the Ethiopian Highlands, photo film		<p>Displayed on NBDC website &amp; ILRI BlipTV</p> <p>Shown to NBDC national platform stakeholders</p> <p>Shown to a range of national and international stakeholders in UNEP climate change adaptation workshop</p>	

## 2. Capacity building of people engaged in the project

Please list any people engaged in the project whose capacity has been strengthened (students, trainees, fellows, project staff, key beneficiaries, etc.) built through your Innovation Funds Project.

FAMILY NAME, Given Name (if available)	Gender	Nationality	In case of students level (e.g., MSc, PhD), affiliated University/ type of training otherwise staff category (e.g. researcher, farmer, extension worker, government official)	Research / thesis subject	Outputs (if any)
78 farmers in Jeldu	70 male, 8 female	Ethiopian	Farmers in Jeldu woreda	Trained in: <ul style="list-style-type: none"> <li>- Soil and water conservation</li> <li>- Fodder tree management and utilisation</li> </ul>	
40 farmers in Diga	32 male, 8 female	Ethiopian	Farmers in Diga woreda	Trained in: <ul style="list-style-type: none"> <li>- Forage development</li> <li>- Soil and water conservation</li> <li>- Termite control</li> </ul>	
33 farmers and 2 experts in Fogera	Farmers: 15 male, 18 female	Ethiopian	Farmers in Fogera woreda	Trained in forage planting and management	
26 farmers and 2 experts in Fogera	Farmers: 14 male, 12 female	Ethiopian	Farmers in Fogera woreda	Trained in forage development strategies	
25 farmers and 22 experts in Fogera	Farmers: 20 male, 5 female	Ethiopian	Farmers in Fogera woreda	Trained in forage preparation and feeding systems	
14 farmers and 10 experts in Fogera	Farmers: 9 male, 5 female	Ethiopian	Farmers in Fogera woreda	Trained in straw treatment with urea fertiliser	
18 experts (6 from each site)	18 Male	Ethiopian	These are technical group (TG) members of the three innovation platforms. They represent different organizations (local NGO, university, research centre, livestock	The training was aimed to build their (technical group members') facilitation skills including stakeholder and community engagement and also participatory research approaches, to help them do more to engage communities in the pilot	

		<p>agency, natural resource department and extension departments selected from the general assembly of each innovation platforms) who are giving technical support to the intervention on fodder development including site selection, community engagement, training, research, reporting and facilitation.</p>	<p>interventions. The training was also given in line with the ILRI's strategy to devolve role and responsibilities of IPs to the local level institutions. The training was given here at ILRI campus and it created an opportunity for the TG members representing the three sites to network, share and learn experiences from the three sites.</p>	
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### 3. Outreach to targeted actors or actor groups

Please list any outreach activities carried out during your Innovation Funds Project.

Type of outreach activities (e.g. informal/ formal meeting, stakeholder consultation, seminar, training, forum)	What type of participants (e.g. farmer, researcher, extension worker, NGO, Priv. sector)? How many participants (gender/ diversity distribution)?	Dates, venue (location, country)	Any feedback or how monitored/evaluated? Any evidence that your outreach activities led to some positive change?
Farmer field days in 3 sites followed by IP meetings on the next day	Farmers, kebele and woreda officials, agricultural research centres, universities, NGOs, <ul style="list-style-type: none"> <li>- Diga: 72 farmers (64 male and 8 female) and 13 experts (12 male and 1 female )</li> <li>- Fogera: 65 farmers (45 male and 20 female) and 35 experts (30 male and 5 female)</li> <li>- Jeldu: 126 farmers (107 male and 19 female) and 15 experts (13 male and 2 female)</li> <li>-</li> </ul>	September – December 2012, in the 3 woredas: Diga, Fogera, Jeldu	Other farmers who have been attending the field day and IP meetings are now selected for involvement in a second round of interventions.
Experience sharing event : only one at Fogera	Farmers, government experts, NGOs, University, and Research Centres <ul style="list-style-type: none"> <li>- 24 farmers (19 Male and 5 Female) and 23 experts (18 male and 5 female) participated representing Foegra Innovation Platform members</li> </ul>	Andet & Andassa Agricultural Research Centres October 2012	Farmers visited Andassa Livestock Research Centre where they saw the centre's dairy farm (both exotic and local breeds) and improved fodder development. For this year the farmers are considering the centre as a key partner and source of fodder seedlings, and in the future a source of improved breeds for Dairy.