

PROGRESS REPORT – JANUARY TO DECEMBER 2016

AFRICA TO ASIA

TESTING ADAPTATION IN FLOOD-BASED RESOURCES MANAGEMENT



Left: Two boys transporting the maize harvest from fields under flood recession in Southern Malawi (Photo: Blessings Jeranji)
Right: Harvested sorghum and guar from spate irrigated fields in Balochistan, Pakistan (Photo: Allah Bakhsh Baloch)

Activities coordinated by:

Flood-Based Livelihoods Network Foundation and MetaMeta Research

In: Pakistan, Sudan, Yemen (IFAD funding)
& Afghanistan and Malawi (EC funding)

Project Summary	<p>Project duration: IFAD (April 2015 to March 2018) EC (November 2016 to August 2018)</p> <p>Total budget: IFAD US\$ 1.2 Million EC € 1.5 Million</p> <p>FBLN focal point:</p> <p>Name: Dr. Frank van Steenberg</p> <p>Tel: +31 6 44 99 50 10</p> <p>Email: fvansteenbergen@metameta.nl</p>
Responsible institutions within the Project	<p>Flood Based Livelihoods Network (FBLN), The Netherlands</p> <p>MetaMeta Research (MMR), The Netherlands</p> <p>Afghanistan Technical and Vocational Institute (ATVI), Afghanistan</p> <p>Rainwater Harvesting Association of Malawi (RHAM), Malawi</p> <p>Strengthening Participatory Organisation (SPO), Pakistan</p> <p>Hydraulic Research Centre (HRC), Sudan</p> <p>Water and Environment Centre (WEC), Sana'a University, Yemen</p>

Acronyms

EC	European Commission
FBFS	Flood-Based Farming Systems
FBL	Flood-Based Livelihoods
FBLN	Flood-Based Livelihoods Network
IFAD	International Fund for Agricultural Development
MM	MetaMeta
KPK	Khyber-Pakhtunkhwa (region in Pakistan)
RDF	Research & Development Foundation, Pakistan
SpNF	(former) Spate Irrigation Network Foundation
WB	World Bank
WUA	Water User Association

1. Summary

The project “Africa to Asia: Testing Adaptation in Flood-Based Resource Management” contributes to the building of practical knowledge, and national and local capacity to systematically and comprehensively support the productive use of flood-based resources for poverty alleviation and inclusive growth in water-stressed regions of Africa and Asia where relatively short flood periods prevail. The project introduces promising practices in the field of flood management, distribution and utilisation, as well as agronomy, livestock and fisheries, by balancing the multifunctionality of flood events. The practices are identified, documented and shared between project countries to introduce them in capacity building endeavours and policies. The aim is to give an important impetus to the productive use of floodwaters and contribute to the up-scaling of meaningful investments in these often-forgotten production systems.

The IFAD component builds upon the achievements of the preceding Spate Irrigation for Rural Economic Growth and Poverty Alleviation (SIREGPA) project (2011-2014) and focuses on its consolidation. This project was successfully implemented in Ethiopia, Pakistan, Sudan and Yemen by UNESCO-IHE in partnership with MetaMeta and the four country chapters, hosted respectively by Mekelle University (MU) in Ethiopia, the Strengthening Participatory Organisation (SPO) in Pakistan, Hydraulic Research Centre (HRC) in Sudan, and the Water and Environment Centre (WEC) of Sana’a University in Yemen. While the IFAD component largely works on consolidating activities in the existing countries, the EC fund is earmarked to upscale up activities to four new countries (Afghanistan, Kenya, Malawi and Myanmar).

This project will be part of, and contribute to the wider CGIAR Research Programme on Water Land and Ecosystems (WLE), managed by IWMI. In this context, joint activities will be explored with WLE partners in the project target countries. The ultimate objective is for this project to reinforce and be reinforced by relevant WLE activities in sustainable agricultural water management at the research and policy level, with ‘Africa to Asia’ working particularly on flood-based resources in arid and semi-arid regions where occasional floods are a vital water resource to sustain livelihoods.

2. Progress towards Project Results

The overall goal of the ‘Africa to Asia’ project is to help develop flood-based livelihood policies and programmes that will meaningfully invest in rural people and that are based on action research, South-South documentation of practical experiences, embedded in long term capacity building, and programme development at various levels.


ACTIVITY	PARTNERS	DESCRIPTION OF ACTIVITY	PROGRESS TO REACH OUTCOMES
COMPONENT 1: FBL NETWORK ESTABLISHMENT AND STRENGTHENING			
EXPECTED OUTCOME			
<ul style="list-style-type: none"> Current country networks in Ethiopia, Sudan, Yemen and Pakistan consolidated and strengthened with farmer membership increased to 30-40%; New networks established in Afghanistan, Kenya, Malawi, Myanmar and Somaliland, each with a minimum of 50 members, promoting documented good practices, innovation in Agricultural Research for Development (AR4D) and training materials; Network mechanism and communication maintained and developed (both external and internal communication lines) 			

Output 1.1 Four current country networks strengthened and farmers' membership increased (IFAD)			
1.1.1 Prepare country database of WUAs active in spate irrigated areas	FBLN- Pakistan, FBLN-Sudan, FBLN- Yemen, MM	<ol style="list-style-type: none"> 1. Overview of WUAs and contact details (Sudan, Yemen), preferably through apex organisations. 2. Local farmer networks established (Pakistan). 	<p>In Sudan and Yemen, country databases of WUAs were prepared. In Yemen, contact persons for each WUA were identified in three different wadis (Tuban, Ahwar and Mwar). It is through these persons that horizontal learning events among farmer groups can be organised. In Sudan, the government dismantled the WUA structure in 2016. Water user groups will be reorganised differently in the future. At the time of reporting, it was still unclear how.</p> <p>In Pakistan, farmer networks were established in several regions. The network in the KPK region is based in Dera Ismail Khan and consists of seven large spate irrigation systems. The numbers of members in KPK increased from 29 (2015) to 48 (2016), and they actively participated in project activities. In Balochistan, networks are present in the Bloan, Sibi and Jhal Magsi districts, the historical spate irrigated areas. The networks consist of farmers, engineers and local experts. More farmers are taken into the network, with the membership increasing from 26 (2015) to 80 (2016). The Punjab spate network is present in two districts (Rajanpur and Dera Ghazi Khan), with the membership having increased from 36 (2015) to 91 members (2016). While the networks in KPK, Balochistan and Punjab are organised by SPO, the Sindh network is organised by RDF. The latter consists of three districts (Dadu, Jamshoro and Tharparkar). Here the membership increased from 21 members in 2015 to 57 members in 2016. The members are generally community leaders who chair their WUAs and local communities, while some are from civil society and ex-government officials.</p>
1.1.2 Develop country network plans that engage farmer groups in network activities	FBLN- Ethiopia, FBLN- Pakistan, FBLN-Sudan, FBLN- Yemen, MM	<ol style="list-style-type: none"> 1. Vision on future position and organisation. Each FBLN chapter will use the Business Model Canvas to create a summary linking the project activities, outcomes, impacts, partnership arrangements, and the costs and benefit streams. 2. Prioritize step-wise engagement with geographical areas of work starting from current base. 3. Identify activities for farmer engagement in activities under component 2 and 3 and develop self-evolving organisation. 	<p>In 2016, important steps have been made to crystalize the future positioning and organisation of the different FBLN partners in Ethiopia, Pakistan, Sudan and Yemen. The Business Model Canvas, was very instrumental to guide MU, SPO, HRC and WEC through the identification of the value proposition for their beneficiaries, the key activities, partners and resources involved. The Business Model Canvases, created by the FBLN partners with support and guidance from MetaMeta are attached to this progress report.</p> <p>In the four provinces of Pakistan, extensive engagement with farmers went on throughout 2016, with the aim to capture the interest and needs of WUA members, upon which engagement plans are based. Different training needs were identified in different provinces. Balochistan WUAs are mainly interested in suitable winter crops, introduction of new crops such as white kidney beans, improved varieties of musk melon, and mooth bean seed exchange with Tharparkar. In Sindh, farmers are more focused on crop production and command area development, including the desilting of feeding canals, tertiary canals, drinking water pond improvement, village protection bunds and flow dividing structures from main to tertiary canals. A successful example of farmer engagement in Sindh, is that as a result of an awareness session with a large number of farmers from six WUAs, water distribution through six barrages was organised efficiently by farmers, the district administration and the irrigation department jointly.</p> <p>In addition, farmer engagement has been stimulated in the countries. For example, in December, eight farmers from three of Sudan's spate irrigated systems (Khor Abu Habil, Khotar and Gash) participated in the closing workshop of the WLE project 'Harnessing Floods' in Kassala State. Here, plans for the introduction of new tools for agricultural practices in the spate systems, developed by the private sector, were discussed. MetaMeta facilitated contact with an Indian entrepreneur that has designed practical tools, including scythes and a tree puller¹. In addition,</p>

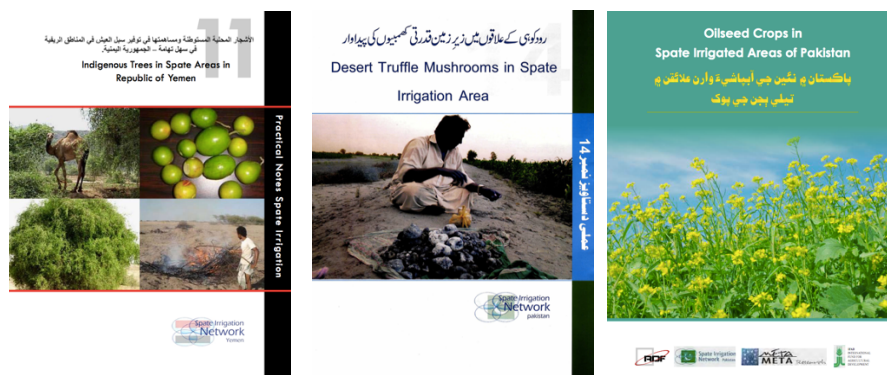
¹ http://www.thewaterchannel.tv/media-gallery/6388-the-tree-puller?category_id=772

			<p>a gathering for farmer engagement in Khor Abu Habil, being a remote spate scheme in western Sudan, was also planned. This is a positive development, as most research has been focusing on the Gash spate scheme.</p> <p>In Yemen, plans for farmer engagement have been created for the Tihama region's WUAs, together with local organisations in the wadis. Meetings were held with WUA focal points in Wadi Mawr and Wadi Zabid, and the best ways to promote farmer exchange were discussed. Due to funding delays, their implementation has been postponed to 2017.</p>
1.1.3 Establish 3-5 core farmer groups that are an integral part of project staff, in each country	FBLN- Pakistan, FBLN-Sudan, FBLN- Yemen, MM	<ol style="list-style-type: none"> Farmer groups represent the priorities in capacity building, research and knowledge development programmes for their respective communities. The operational budget is for the farmers, while FBLN Chapter coordinators prepare the ToR. Farmer groups actively partner with the project staff to implement programmes and communicate the outcomes with their respective communities, local decision makers and other influential development organisations. 	<p>In Pakistan, members from the network have been involving active farmers and representatives in their activities. For example, the Agronomy Department of Gomal University in Dera Ismail Khan submitted a soil fertility management research proposal, in which farmers will be linked to the research. The Department conducted a two-day farmer training session in January 2016, where 25 farmers from various spate areas participated. In addition, four training programmes on crop production were arranged by local WUAs in PKP, Punjab, Baluchistan and Sindh.</p> <p>In terms of involving farmer groups in research, success was achieved in Sudan. There, farmers contributed to research activities at the field level to study on-farm water management in the Gash Agricultural Scheme (GAS), carried out from June 2015 to January 2016. Being selected by the WUAs, the farmers participated in flow measurements and soil moisture measurement under guidance of HRC staff. During the 'Harnessing Floods' project workshop, the establishment of formal core farmer research groups was also discussed, and under progress.</p>
Output 1.2 Network mechanism and communication maintained and developed (IFAD & EC)			
1.2.1 Website maintained and developed	MM	<ol style="list-style-type: none"> Create a system for clear country identity and country uploads in relevant sections. Enhance user interface further. Website membership expanded and website maintained to serve as an active platform for exchange of knowledge and experiences. 	<p>The website has continuously been updated with news from the various intervention countries, and beyond. During 2016, discussions took place to make the online platform more accessible, and create clearer country identities, and this work will continue in 2017.</p> <p>In addition, to further assist the strengthening of the Flood-Based Livelihoods Network, and to guide the country chapters in designing their country specific communication plans, the Network Development & Communication Plan was created by MetaMeta (attached).</p>
1.2.2 Newsletter maintained and developed	MM, FBLN Chapters	<ol style="list-style-type: none"> Quarterly FBLN newsletter '<i>Managing Floods Matters for People, Livestock and the Environment</i>', including a section by the farmer groups. Membership updated and improved Effective communication mechanism on FBL identified for each of the network partners (farmer groups, WUAs, professionals, government, non-government organisations, donors) by all FBLN Chapters through a communication plan. 	<p>There has been active communication between MetaMeta and the country chapters to gather experiences and knowledge on flood-based livelihoods for the newsletter. HRC contributed to the June issue with an article on water allocation among users in the Gash river, highlighting the study outcomes so far. WEC contributed with an article on how the conflict affects the lives of communities in the Tihama region where spate irrigation is prevalent. In both the existing and new countries, the newsletter membership was updated and expanded among professionals and farmers.</p> <p>In Pakistan, SPO has created a quarterly newsletter in the local language, with information on trainings, farmer visits and seed exchange activities. Several Practical Notes were also re-published, with a better local language translation, to reach more farmers. This included notes on oil seed cultivation; pulses and beans under spate irrigation, and a note on truffle mushrooms. They were shared among farmer groups, and local civil society, universities and government offices. Translations have been made in the Sindhi language and Urdu.</p> <p>Different communication channels are used for different groups. Direct contacts and practical meetings with WUAs are considered best. The Yemen chapter has prepared short videos on issues that are relevant to farmers, such as livestock fodder banks, tradition fertilisers from</p>



			<p>livestock waste, biogas production and traditional plant medicine to cure livestock disease, which are shown to farmer groups.</p> <p>SPO in Pakistan effectively keeps contact with farmers via WhatsApp, through which news and information are shared, as well as videos and pictures. Besides, there are contacts with line departments and civil society, for which email and seminars are considered more adequate.</p>
1.2.3 Establish FBLN foundation	MM	<ol style="list-style-type: none"> 1. Registration as a foundation. 2. Develop administrative procedures 	<p>MetaMeta had already successfully registered the Spate Irrigation Network Foundation in the Netherlands, but recently changed its name to Flood-Based Livelihoods Network Foundation. The latter allows the Foundation to work a wider diversity of topics in flood areas. The core principle that defines the existence of FBL is to transform floods from a source of destruction into a source of livelihood for people and livestock, and to buffer the landscape and the environment from degradation. If well designed and managed, FBL can fulfil several important basin management functions that go beyond merely providing water for agriculture, rangeland and forestry. They include: preserving biodiversity; mitigating flood peaks; stabilizing river systems; and recharging groundwater. This much contributes to the approach of recharging, retaining and reusing water. Using floods for diverse livelihoods (crop production for fodder and consumption, storing drinking water for both people and livestock, and practicing fishing and aquaculture), will contribute to a more sustainable food security that can improve the diet and health of many people. Together with the name change, logos have also been designed for the Foundation and the different country chapters.</p>
Output 1.3 Knowledge promoted and programme developed through national networks (IFAD)			
1.3.1. Organise cross-country farmers' knowledge sharing	MM, FBLN- Pakistan, FBLN-Sudan	<ol style="list-style-type: none"> 1. Organise field-based, targeted knowledge sharing activities organised. 2. Provide scholarships to farmers. 	<p>In Pakistan, three farmer trainings took place during 2016. All farmers were requested to bring seeds of 'forgotten' crops that are growing in their respective areas, but not elsewhere. Examples of such crops are local varieties of red kidney beans, mooth beans, chickpea and sorghum. In Dera Ismail Khan, the training revolved around red kidney beans and mung beans, the latter being procured by the Dry Agriculture Development and Research Centre in Chakwal. In March 2016, another, joint meeting was organised at two locations in Punjab (Kot Kaisrani and Shadi Wala) with farmers from Baluchistan, Punjab and KPK. Here, farmer-to-farmer discussions on mooth beans, red kidney beans and chickpea, as well as soil moisture conservation after early floods were facilitated by the Quetta Agriculture Research Institute. During the joint meeting, Punjab farmers informed the other farmers about the cultivation of chickpeas, including seed application rate, ploughing methods, twig cutting, insect control, harvesting and threshing. In return, the Baluchistan farmers deliberated on the cultivation methods of mooth beans, a crop that was not used by the KPK farmers. The KPK farmers deliberated on the cultivation of kidney beans. The visit ended with a visit to the irrigation structures built within the Kaura spate irrigation system. At the end of the discussion, 20 kg of chickpeas and 20 kg of local sorghum variety were exchanged for trail in the spate irrigated areas like Bhag. During a recent visit in November 2016, it was found that the chickpeas are cultivated successfully here. The sorghum seeds from Punjab were mixed with local Baluchistan varieties. While scholarships were not awarded to farmers, their transportation and accommodation for the trainings was covered from the given budget.</p> <p>In November 2016, another training was facilitated by Gomal University in Bhag, Baluchistan, for a group of 14 farmers from the Sindh network. In addition, 15 leaders from the Baluchistan network participated as well. Focus was placed on disease control related to mooth beans, introduction of new varieties of mung bean, red kidney bean, white bean, and white chickpea bean, as well as harvesting techniques, pest control using organic pesticides, crop marketing,</p>

			<p>production of Lobia beans from Sindh, and the grafting of Jujube tree². About the latter, a short video was made in which an expert farmer from Sindh demonstrates to farmers how the grafting of the tree takes place. In addition, the Sindh farmers handed out a small quantity of musk melon seeds and white Lobia beans for the Baluchistan farmers, as well as 50 kg of mung beans. They also requested castor oil seeds, that are cultivated in Sindh at a large scale. This will be taken up in the future. Next to seeds, Bhag Narri bulls were introduced to the Sindh farmers, who showed interest to breed these as well.</p> <p><i>Figure 1 Farmers knowledge exchange visit in Sindh, November 2016</i></p>  <p>Also in Sudan, preparations to organize cross-country farmer knowledge sharing were made since May 2016. However, this was shifted due to delays in funding release and they were conducted in December 2016 instead, in parallel with the 'Harnessing Floods' project's closing workshop. In addition to professionals, a considerable number of farmers from flood-based systems in eastern and western Sudan gathered to share their experiences.</p>
1.3.2 Tailor-made training to selected farmer groups / WUAs	MM, FBLN-Pakistan, FBLN-Sudan	1. Prepare hands-on training packages together with WUAs. Use videos and other material for discussion.	This activity has not yet taken off in Pakistan and Sudan , as a result of funding delays. The Pakistan network is however undertaking research studies in three different topics. It is intended that the outcome of these studies forms an input for the training package. As part of the network development and communication plan, videos will have to be more systematically recorded and used in good practice learning events for farmers.
1.3.3 Develop and disseminate knowledge products in local	MM, FBLN-Pakistan, FBLN-Sudan	1. Undertake quick needs assessment. 2. Translate and disseminate practical notes.	In 2016, two Practical Notes are prepared in the Arabic language by the Sudan chapter; on water governance and gender issues in spate irrigation. Over the passage of time, the Pakistan network has prepared and published 16 Practical Notes of which some in the local languages Sindhi and Urdu. A set of Practical Notes was provided to network members and government

² <http://www.thewaterchannel.tv/media-gallery/6336-grafting-of-jujube-tree>

languages together with WUAs - 2015			officials from the four provinces. Also, copies of the guide book on spate irrigation were handed over to farmer leaders of Sindh.
1.3.4 Country network secretarial support	FBLN Chapters	1. Coordination and administration of country programmes.	From 28-30 April 2016, the project annual meeting was held in Schenkenschanz, Germany. The project leaders from the four target countries (Ethiopia, Pakistan, Sudan and Yemen) and the three implementing partners (ICRAF, MetaMeta and SpNF – now FBLN Foundation) gathered to reflect in an involved setting. At the country level, new network secretariats have been created at the RHAM in Malawi and ATVI in Afghanistan, and have started the implementation of the activities identified during the FBFS leadership course in Kenya and Tanzania. The secretariats at SPO, HRC and WEC have continued their support to the country programme.
Output 1.4 Five new networks established (EC)			
1.4.1 Convenor organisations identified	MM, FBLN- Afghanistan, FBLN- Malawi	1. Afghanistan: core FBL group established within ATVI. 2. Malawi: core FBL group established within RHAM.	A core team has been identified and briefed on FBL, both within ATVI, Afghanistan as well as RHAM, Malawi.
1.4.2 Country programme to be developed	MM	1. Database of relevant farmer groups, WUAs, professionals, government, non-governmental organisations, donors prepared in Afghanistan and Malawi . 2. Develop long-term perspective and linkages.	During 2016, initial databases of relevant farmer groups and professionals were created, and will be further consolidated in 2017. In Malawi , over 40 members have been listed. However, as a result of funding delays only limited efforts have been able to materialise in the two countries.
Output 1.5 Knowledge promoted and programme developed through national networks (EC)			
1.5.1 Develop and disseminate knowledge products in local language together with WUAs	MM, FBLN- Afghanistan, FBLN- Malawi	1. Define topics and activities depending on country priorities, needs and interest in FBL (based on quick needs assessment). 2. Create reports and maps on the status and potential of FBL in Afghanistan building on existing overview papers. 3. Malawi: Compile documents on FBL and Rainwater Harvesting, and conduct a baseline to review the FBL experience. 4. Organise a meeting in Afghanistan and Malawi with all Chapter partners to discuss activities.	In Afghanistan , ATVI started with the preparation of the report on the status and potential of FBL in Afghanistan. At the end of 2016, this report was about 50 percent completed, and will be finalised in the first half of 2017. In Malawi , a number of relevant documents on flood-based livelihoods and rainwater harvesting have been compiled as a starting exercise to for the FBL review in 2017. Figure 2 Examples of Practical Notes in local languages (http://spate-irrigation.org/resource-documents/practical-notes) 

1.5.2 Organise cross-country farmers' knowledge sharing activities	MM, FBLN- Afghanistan, FBLN- Malawi	<ol style="list-style-type: none"> 1. Organise field-based, targeted knowledge sharing activities organised. 2. Provide scholarships to farmers. 	In Malawi , extensive field training was done involving farmer groups and extension workers. Key water harvesting and moisture retention technologies that were introduced to the farmer groups in Chikwawa, southern Malawi, included road water harvesting as well as water retention ditches and percolation pond construction. In Afghanistan , similar activities are expected to start up in 2017.
ACTIVITY	PARTNERS	DESCRIPTION OF ACTIVITY	PROGRESS TO REACH OUTCOMES
COMPONENT 2: KNOWLEDGE DEVELOPMENT AND SOLUTION MANAGEMENT			
EXPECTED OUTCOMES <ul style="list-style-type: none"> • FBL relevant research undertaken on three themes. • At least eight new practical notes (5 EC and 3 IFAD) on cross-country relevant research collaboratively developed and disseminated. These provide research insights and document actionable solutions related to FBL that are translated into key languages. In addition, an Africa to Asia exchange programme on at least three of these themes is conducted. • At least eight quick-win solutions oriented research programmes (5 EC and 3 IFAD) linked to capacity building of young professionals. • Develop Design Guidelines for Spate Irrigation, and FBL Guidelines 			
Output 2.1 Eight practical notes and other communication products on cross-country relevant research themes prepared (IFAD & EC)			
2.1.1 Water governance and conflict mitigation - 2016	MM, FBLN Chapters	<ol style="list-style-type: none"> 1. Support solution-oriented research; literature review; engagement with implementers, policy makers and farmer groups. 2. Produce one thematic research report, including an executive summary for farmers, that will appear in the quarterly newsletter along with main research findings. 3. One article submitted to a peer reviewed journal. 	<p>In Sudan, a Practical Note on Water Governance is being drafted, describing water resources regulation rules that govern the use of Gash River water resources in the Kassala State. The note needs further strengthening by incorporating the regulation rules applied for the water resources in Khor Abu Habil. This information has been collected in 2016, and the validity and impact of these rules on the spate systems was assessed at the end of the year.</p> <p>The WEC in Yemen prepared one Practical Note on Groundwater Recharge and Saving, in addition to one Note of Water Rights in the Spate Irrigated Wadi Zabid. These Practical Notes were under review at MetaMeta in the Netherlands.</p> <p>In Pakistan, a study related to the Water Governance and Conflict Mitigation in Spate Areas was being implemented by RDF and Sindh Agriculture University Tandojam, based on structured and semi-structured interviews with Sindh Irrigation Department and Irrigation Drainage Authority officials, and focus group discussions with farmer networks in the Dadu and Jamshoro districts. In addition, meetings were held by SPO with scientists from the Water Management Department at the University of Agriculture in Jamshoro, for a research study on Water Conflicts Settlement in Sindh's Spate Areas.</p>
2.1.2 Management of soil moisture and fertility - 2016	MM, FBLN Chapters	<ol style="list-style-type: none"> 1. Support solution-oriented research; literature review; communication between countries; engagement with implementers, policy makers and farmer groups. 2. Produce one thematic research report, including an executive summary for farmers, that will appear in the quarterly newsletter along with main research findings. 3. One article submitted to a peer reviewed journal. 	<p>In Pakistan, a study on soil moisture conservation and fertility management was started in the second half of 2016, by sending a ToR to the six universities that are members of the Pakistan network. Two proposals were received from Gomal University and Mohamad Nawaz Sharif Agriculture University, assessed and modified according to the suggestions from MetaMeta. At the end of 2017, contracts were being finalised for the research to start.</p> <p>In Yemen, a primary draft of a study on Soil Moisture Conservation Techniques in Spate Areas was completed, based on fieldwork and farmer interviews, questionnaires and focus group discussions in the Tihama region.</p>

			<p>Figure 3 Conventional soil tillage and manure. Two traditional ways to conserve soil moisture in Yemen's spate irrigated areas.</p> 
2.1.3 Improvement of water diversion and distribution efficiency	MM, FBLN Chapters	<ol style="list-style-type: none"> 1. Support solution-oriented research; literature review; communication between countries; engagement with implementers, policy makers and farmer groups. 2. Produce one thematic research report, including an executive summary for farmers, that will appear in the quarterly newsletter along with main research findings. 3. One article submitted to a peer reviewed journal 	<p>In Ethiopia, Mekelle University has conducted research on hybrid (mix between traditional and modern) diversion structures in various spate schemes in Ethiopia's Raya Valley. This has resulted in the writing of a Practical Note that was reviewed by MetaMeta, and in the process of being finalised at the end of 2016.</p> <p>Figure 4 Off-take and main canal of the Oda spate scheme in Northern Ethiopia</p>  <p>In addition, one Practical Note was developed on Fodder Production with Spate Irrigation and road run-off, with examples from Somaliland and Kenya³.</p>
2.1.4 One video based on footage from the IFAD countries	MM, FBLN-Pakistan, FBLN-Sudan, FBLN-Yemen	<ol style="list-style-type: none"> 1. Document the research process, outline the outcomes and highlight testimonies on the relevance of research by farmer leaders, local decision and policy makers, as well as academics and influential bodies. 	<p>HRC in Sudan has started to document flood-based livelihoods in the three spate-irrigated areas (Khor Abu Habil, Khotar and Gash) since September 2016. This is innovative as in the previous project, video documentation has been limited to the Gash River and did not compare the spate irrigation practices between different areas in Sudan.</p> <p>In Pakistan, video clips have been captured throughout the four provinces, covering various topics like field water management, seeds exchange activities, crop trails, pest control practices, crop harvesting, as well as farmer interviews. During the reporting period, a video on chickpea cultivation was prepared in Sindh as well, which serves as training material for farmer groups.</p>

³ <http://spate-irrigation.org/resource-documents/practical-notes/>

Output 2.2 Eight solution-oriented research programmes conducted (IFAD & EC)			
2.2.1 Coordinate and implement research	MM, FBLN Chapters	<ol style="list-style-type: none"> 1. Do fact-finding, while ensuring farmers engagement in following themes: soil moisture and fertility management; new crops; resolving water distribution conflicts; water governance; water use efficiency; command area development; tree management; managed regeneration. 2. Afghanistan: conduct research on water rights and conflict resolution. 3. Malawi: Conduct meeting with scientists to identify areas for Participatory Action Research. 	<p>In Sudan, the study on farm water management in the Gash Agricultural Scheme started in June 2015 and continued January 2016. Reporting on phase one of this research was completed in April 2016 in which data screening and analytical results were presented. Phase two focuses on using specialised software (WinSRFR) to come out with the best irrigation schedule for crop varieties that are currently used in GAS. The obtained results were presented to the audience in the workshop organised in December 2016. The next step is to implement these findings at one pilot farm in 2017.</p> <p>At the WEC in Yemen, several BSc. and MSc. researches were designed, focusing on “soil water conservation techniques in the Tihama spate area, using traditional knowledge” as well as “mulching techniques for soil water conservation and their impact on groundwater conservation in Wadi Zabid”.</p> <p>In Pakistan, soil moisture conservation and fertility management are a continued activity that farmers have discussed at different occasions. It is found that moisture conservation is mainly relevant for wheat and chickpea cultivation, when monsoon floods are received at the end of August to mid-September, while the crops are cultivated in mid-November of every year. After the flood, as the soil surface dries, farmers will plough their fields at a shallow depth and immediately close the soil crakes with a wooden plank, so that the moisture is preserved until the right time for seeds cultivation comes. An in-depth study on soil and moisture conservation will be undertaken soon by Gomal University Dera Ismail Khan and Mohamad Nawaz Sharif Agricultural University in Multan. Contracts are in a final process with the universities.</p> <p>In Malawi, field visits have been conducted to document current practises, successes and challenges of farmer communities. A meeting was held at the Kasunthula Research Station, which is undertaking irrigation-focused research. Some current studies already focus on FBFS practises, such as improving irrigation efficiency under FBFS and crop performance under various FBFS.</p>
2.2.2 Organise exchange on one theme	MM	<ol style="list-style-type: none"> 1. Coordinate communication between countries, and undertake exchange between countries in 2016. 2. Measure impact and produce note. 	<p>The coordination of communication and exchange between countries will receive a considerable impulse during the Internship Programme, during which young professionals from the 8 impact countries will be gathering in Wageningen, the Netherlands from April 8th to June 3rd. In the second half of 2016, preparations have started for this event. The young professionals will work intensively together to create joint research outputs on key topics, and put in place tools and approaches for outreach to farmer groups who depend on flood-based livelihoods in their respective countries.</p>
2.2.3 Research by young professionals	MM, FBLN-Pakistan, FBLN-Sudan, FBLN-Yemen	<ol style="list-style-type: none"> 1. Identify students and young graduates to do FBL research. 2. Implement and supervise research, and prepare practical outputs. 	<p>In Pakistan, one intern is working with Sindh University on spate irrigation, water management and conflict resolution. Other interns will be engaged by Gomal University and the University of Agriculture in Jamshoro. In Sudan, one young researcher is conducting his MSc on themes that are relevant to FBL, and is supervised by a senior researcher. Also in Yemen, two young engineers have done fieldwork and data analysis on FBL relevant topics in the Tihama region.</p>
Output 2.3 FBL Guidelines developed (EC)			
2.3.1 Design guidelines for spate irrigation	MM	<ol style="list-style-type: none"> 1. Prepare design guidelines for spate irrigation – covering design process and approach and technical design. 2. Present draft at International Commission on Irrigation and Drainage meeting. 	

		3. Finalise design guidelines.	
2.3.2 FBL Guidelines	MM	1. Prepare general FBL Guidelines book that will, among other aspects, provide detailed descriptions, status and potential, as well as an investment guide for the various FBL, drawing from well-documented successful and failed practices and experience.	In 2016, documents have been gathered to facilitate the write-up of the Flood-Based Livelihood Guidelines, and an annotated outline has been developed. The Internship Programme will also assist in the further elaboration of the Guidelines, through the provision of case studies and up to date information on FBL relevant themes within the context of each country.
ACTIVITY	PARTNERS	DESCRIPTION OF ACTIVITY	PROGRESS TO REACH OUTCOMES
COMPONENT 3: CAPACITY BUILDING			
EXPECTED OUTCOMES <ul style="list-style-type: none"> • Three existing MSc programmes (Ethiopia, Pakistan and Yemen) consolidated and two new MSc programmes started with comprehensive modules on FBL; • 50 young professionals trained to be competent future leaders and promoters of FBL at the short course offered annually by MetaMeta, ICRAF and partners. • Short annual course for key programme stakeholders, with satellite courses in key regions. This will benefit at least 240 practitioners and professionals and 40 policy makers. • 4 Farmer Learning Centres established with complete FBL training packages, including videos and practical notes (FBL mainstreamed into four vocational training centres), and equipped to provide paid-for local services. These centres will provide services to over 1600 male and female farmers. • Farmer to farmer exchange programmes implemented involving at least five countries. 			
Output 3.1 Three existing MSc programmes consolidated (IFAD)			
3.1.1 MSc Programmes Pakistan	FBLN- Pakistan, MM	1. Support to programmes at Arid Zone University, Gomal Zam University and DG Khan Agriculture College. 2. Add new modules (ecosystem management/water allocation).	In Pakistan , an expert commenced working on the graduate-level FBL curriculum with three universities in 2016. A contract has been awarded to a consultant to work on the preparation of new modules that focus on the water allocation and ecosystem management in the Kachi Plains, Baluchistan. In addition, the Arid Zone University notified that it will start to offer spate irrigation as an optional subject.
3.1.3 MSc Programmes Yemen	FBLN- Yemen, MM	1. Upgrade with new modules on road water harvesting, conflict resolution, and water use efficiency.	
3.1.4 MSc Programmes Sudan	FBLN- Sudan, MM	1. Support to programmes in Kassala, Gezira and Khartoum. 2. Invite core trainers to international leadership course. 3. Support and provide material as appropriate to the local context	From Sudan , one senior HRC researcher and a senior lecturer from Kassala University joined in the FBFS leadership course organised by ICRAF. This assisted them to design training materials that can support the MSc. programmes. Further actions will need to be taken in this regard.
Output 3.3 Regional courses conducted (IFAD)			
3.3.1 Upgrade current regional course	MM	1. Develop material on ecosystems and gender and conflict resolution, for the existing regional course.	
3.3.2 Develop material for additional regional FBL course	MM	1. Prepare course on flood recession and rise. 2. Explore second course focused on other FBL systems in 2016/17 3. Include five new countries in the course.	
Output 3.4 Two new MSc programmes on FBL started (EC)			

3.4 MSc Programmes in Afghanistan	FBLN- Afghanistan, MM	<ol style="list-style-type: none"> 1. Invite core trainers of Kabul University's Agricultural Department to international course; 2. Provide course material as appropriate to the local context. 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
3.5 Design and give lectures and mainstream FBL courses into curriculum	FBLN- Malawi, MM	<ol style="list-style-type: none"> 1. Malawi: Give lectures in university and colleges on FBL. Mainstream FBF practices into the curriculum. 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
Output 3.5 Four Farmer Learning Centres established (EC)			
3.5.2 One farmer-tailored training on relevant FBL topics in each of the IFAD target countries	MM, FBLN- Pakistan, FBLN-Sudan, FBLN-Yemen	<ol style="list-style-type: none"> 1. The core team of farmers working in partnership with the project staff will develop the content and teaching methods, and accordingly implement the training courses (MM contributes in Afghanistan, Sudan and Yemen). 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
3.5.3 Short courses for farmers	MM, FBLN- Afghanistan, FBLN- Malawi	<ol style="list-style-type: none"> 1. Afghanistan: A short course on relevant FBL themes is given to farmer groups and local organisations active in FBL areas. 2. Malawi: Key farmer groups for training identified, training modules for different categories of stakeholders (medium-level and farmer-level) developed, and training sessions conducted. 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
Output 3.6 Internship programme conducted			
3.6.1 Develop a FBL internship programme for young professionals	MM, all FBLN Chapters	<ol style="list-style-type: none"> 1. Employ one young professional who becomes an integral part of the Chapter project teams in Afghanistan, Ethiopia, Kenya, Malawi, Myanmar, Pakistan, Somaliland, Sudan and Yemen. 	The preparations for the Internship Programme have started in the last quarter of 2016, after it became clear that the EC funding will be channelled through. All the country chapters had already been prepared for this moment and were requested to select their candidates to ensure a smooth start of the programme preparations in early 2017. The young professionals are appointed to become an integral part of the country chapters and strengthen their FBL activities in farmer network strengthening, action research, introduction and sharing of good practices, and capacity building. The preliminary outline of the FBLN Internship Programme is attached.
ACTIVITY	PARTNERS	DESCRIPTION OF ACTIVITY	PROGRESS TO REACH OUTCOMES
COMPONENT 4: SUPPORT TO INVESTMENT PROGRAMMES AND POLICIES			
EXPECTED OUTCOMES			
<ul style="list-style-type: none"> • 6 proposals for national or provincial investment programmes, or development policies by national governments, IFAD or donors discussed and preliminary accepted in stakeholder consultations; • African and Asian countries to exchange at least 2 proposals; • Technical support provided on request to IFAD investment programmes active in the project areas; 			
Output 4.1 Two proposals for national or provincial investment programmes or development policies created (IFAD)			

4.1 Investment programme on command area development in Pakistan	FBLN-Pakistan, MM	<ol style="list-style-type: none"> 1. Formulate proposal for command area development in Narri system. 2. Formulate proposal for Awaran district spate irrigation development. 3. Meeting with stakeholders and donors (WB, USAID). 	In Pakistan, data for the development of the command area at Bhag, Baluchistan, through the creation of six dispersal structures has been collected in 2016, including beneficiary names on each ganda (diversion structure), the estimated length of the feeding canals, length of tertiary canals, flow diving structures, number of drinking water ponds, as well as the needs for farmer training and introduction of new crop. A concept note will be ready in the first quarter of 2017. Other concept notes for diversion structure and command area development focus on the Vehoa River, Shadiwala, Lakhani Wah and the Khartoor Ganda. The notes were prepared with the participation of relevant WUAs and will be send to the respective government. A project for the development of the entire command area at Bala Narri in Bhag, Baluchistan was also under preparation. Funding opportunities will be explored at the national level with USAID, PPAF, and the Punjab and Baluchistan governments.
Output 4.2 IFAD projects under preparation supported on request (IFAD)			
4.2.1 Visit IFAD country offices	All FBLN Chapters	<ol style="list-style-type: none"> 1. Country teams to liaise with IFAD country offices. 	A couple of visits have been made to IFAD country offices to provide information on the project to the water sector sections. Relevant literature has also been handed over.
4.2.2 Support to IFAD project formulation	MM	<ol style="list-style-type: none"> 1. Visit IFAD HQ (ASAP and regional units) 2. Support Madagascar project ASAP 3. Support combined NEN / West Africa initiative on water harvesting and irrigation 	In Ethiopia as well as Sudan, IFAD as well as other donor offices are being advised. In Sudan , this is for example done related to refugee control in Kassala State. Local investment projects have also received advice.
Output 4.3 Four proposals for national or provincial investment programmes or development policies created (EC)			
4.3.1 GDP2 in Tigray	MM	<ol style="list-style-type: none"> 1. Contribution to the five-year plan in Tigray, Ethiopia 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
4.3.2 Spate from roads	MM	<ol style="list-style-type: none"> 1. Join Global Resilience Partnership Learning Alliance on Roads for Water and Resilience 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
4.3.3 Prosopis Juliflora	MM	<ol style="list-style-type: none"> 1. Contribution to policies on Prosopis Juliflora (assist GIZ publication) 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
4.3.4 Investment proposals in EC countries		<ol style="list-style-type: none"> 1. Afghanistan: One FBL investment proposal is developed, and one FBL policy note is ready 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
Output 4.4 Africa to Asia exchange in at least two proposals facilitated (EC)			
4.4.1 Milk churners: Ethiopia, Sudan, Pakistan	MM	<ol style="list-style-type: none"> 1. Develop plan for introduction in Tigray and Amhara, and facilitate the import of milk churners. Consider other types of household mechanisation. 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
4.4.2 Sorghum exchange	MM	<ol style="list-style-type: none"> 1. Contact key institutions on sorghum breeding in key countries in 2016. 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
4.4.3 Mini-millet variety from Nara, Pakistan	MM	<ol style="list-style-type: none"> 1. Document the Nara variety, and contact Ethiopian research institutes. 	<i>This activity will be properly initiated when the EC funding is channelled through.</i>
Output 4.5 Linkage to other WLE activities established (EC)			
4.5 WLE linkage	MM	<ol style="list-style-type: none"> 1. To be decided 2. Seed exchange with diversity 	The final workshop of the WLE 'Harnessing Floods' project has been a good case of how one gathering has been able to serve the purpose of presenting the end results of one project, while at the same time making use of the opportunity to gather stakeholders from three spate areas in Sudan and discuss FBL activities. Most notably, the business model canvas was discussed that serves the purpose of strengthening the FBLN Sudan chapter.

3. Unplanned and Unintended Activities, Outputs and Outcomes

Besides the planned project activities, there is a considerable number of activities that have happened without being planned or intended, but that made a positive contribution to the outcomes of the project or the objectives of the FBL Network.

In **Malawi**, exceptionally heavy rainfall fell in 2016 as a result of the La Niña effect. RHAM took this as an opportunity to promote various FBL practises. RHAM staff have organised a hands-on training session to farmers and extension workers on various methods of road run off harvesting, with the aim to raise awareness on the various techniques available to improve soil moisture, and to increase skills on how to implement the practices in their fields. The technologies covered during the training were infiltration pits, water retention ditches, farm ponds with plastic lining, percolation ponds, check-dams, and planting pits. The training was co-facilitated by the young professional who will also participate in the FBLN internship programme. Following the training, road run off harvesting has been intensified in most parts of the country with remarkable results. Due to their ease of implementation, the scaling up of the practise is set to increase in the coming years. RHAM would like to set up a number of demonstration sites in the targeted districts where flood-based livelihoods exist.

SPO in **Pakistan** has been testing a good practice, being the use of WhatsApp group communication to keep a tight liaison with educated farmers. It was not planned initially but farmers are now actively participating by sending pictures and short videos of their practices and relevant information. As part of the Network Development and Communication Plan, this will be further promoted in other countries where similar possibilities exist in 2017.

In **Sudan**, a tailor-made training on water management in mega irrigation schemes was organised by HRC and MetaMeta in August 2016. It was financed by NUFFIC through the NFP-TMT facility, and co-financed by the 'Africa to Asia' project, as one of the training outcomes of the tailor-made training was to provide the participants with new insights on the role of FBL development to achieve food security and a healthy environment.

At the WEC in **Yemen**, an exhibition was organised in December 2016 at Sana'a University with visitors including WUAs. There were several poster presentations related to spate irrigation and groundwater recharge, and their impact on crop production in several wadis in Yemen. In addition, the milk churner was demonstrated.

4. Quantification of target groups

In the following, a quantification has been made of the target groups reached, based on numbers that have been reported by the country chapters.

Target group	Benefits
18 policy shapers (Malawi: 3, Pakistan: 10, Sudan: 2, Yemen: 3)	Policy shapers have mainly been reached to gain their support for activities in the project area, to raise awareness and voice for areas that depend on flood-based livelihoods and have been neglected, as well as to share the experiences on good communication with WUAs.
65 practitioners and professionals (Malawi: 14, Pakistan: 25, Sudan: 26)	Practitioners and professionals have been involved to assist in capacity building activities, and to initiate and continue dialogue on FBL relevant themes and practices.
407 male and female farmers, fishermen and livestock herders (Malawi: 199, Pakistan: 200, Sudan: 8)	Farmers, fishermen and livestock herders are among the core stakeholders in this project. They have been reached through (tailor-made) trainings on water management and agronomic practices to increase the uptake of these practices, as well as through awareness activities to capacitate farmers in the strive to defend their interests locally.
16 national government agencies (Malawi: 4, Pakistan: 1, Sudan: 11)	National government agencies have been involved mainly to ensure a better collaboration on FBL activities, and to increase awareness on the potential of FBL.
10 national and international partners (Malawi: 2, Pakistan: 2, Sudan: 6)	These include national and international civil society organisations as well as universities.

5. Monitoring and Evaluation

During 2016, monitoring and evaluation activities have been undertaken on a quarterly basis. The first activity was the annual meeting in Germany, where progress was discussed. Subsequently, partners were requested to submit their bi-annual progress report in July 2016 to MetaMeta. In the second half of 2016, MetaMeta has designed a new and clear reporting format by bringing together the outcomes, outputs and activities as outlined in the proposal as well as those in the annual work plans, in one framework. This framework has subsequently been used to allow for quarterly reporting by country partners. This framework was also shared with ICRAF, and accepted, to properly align reporting structures. In the countries themselves, monitoring activities are undertaken. Various means are being used to document and monitor implementation of activities, including compilation of field reports, shooting of video clips, and the taking pictures.

In **Malawi**, the project was started by organising several sensitisation meetings and pay visits to the fields of farmers that depend on flood recession. Following a training of extension workers and farmers on some FBL practises, a field visit was conducted in September 2016 that involved farmers and extension workers to monitor implementation and challenges faced by farmers in the Chikwawa District. So far, it was noted that there is a growing interest in road run-off harvesting technologies. However, the lack of knowledge remains a big challenge in upscaling these practises, increasing the need for more demonstrations and farmer exchange visits so that they can learn from each other.

Between September and December 2016, all four of **Pakistan's** farmer networks in Sindh, Punjab, KPK and Baluchistan were visited, with the main objective to monitor ongoing activities and meet key project partners and farmer communities. In addition, the cultivation of the different crops that were provided to farmers through the seed exchange was also monitored. Moreover, progress on the cultivation of crops and water management has been done through sharing pictures and videos on WhatsApp's groups.

Figure 5 Fieldwork (questionnaires and farmer interviews) undertaken in Yemen's Tihama region on soil water conservation techniques.



6. Efforts to Address Gender Equality and Inclusion of People with Disabilities

Efforts to strengthen the position of women and to promote social inclusion through project activities, as well as their reporting, need to be notably strengthened and improved in 2017. This also relates to the collection of gender-segregated data on project beneficiaries, and the provision of explanations how activities address and overcome the drivers of gender inequality to create positive impact towards least favoured groups. In some countries, such as Pakistan, limitations are encountered such as the social restriction in some regions on women participating in meetings and trainings. Ways will have to be found to deal with this issue, like the provision of separate meetings and trainings.

7. Opportunities

As project implementation progresses, different opportunities emerge which the country chapters can capitalise upon, with the aim to have a good impact on project implementation and outcomes. For example, in **Malawi** it has been observed that an increasing number of voices, including the one of the Minister of Agriculture, highlight the need to take advantage of the annually returning floods to produce crops. The 'Africa to Asia' project will take advantage of such sentiment to engage more effectively with government agencies and other NGOs in promoting the practices. A notable initiative is the Malawi Flood Recovery Programme that the Government of Malawi implements with support from IFAD in eight flood-prone districts of the country. As part of the recovery process, various land and water management activities are earmarked, including the construction of physical structures to reduce flood damage, and crop production activities that can take advantage of the floods. RHAM has so far been in touch with the implementing partners to identify ways of mainstreaming FBL.

Figure 6 Left: shallow wells used to supplement irrigation in Spate Fields. Middle: Water lifting devices in flood recession fields in the Chikwawa District. Right: Maize grown under residual moisture in flood plains of Southern Malawi.



8. Communication

A fair amount of communication was generated during 2016. In **Pakistan** for example, farmers from different regions were successful in lobbying with local Parliament Members. In KPK and Baluchistan, the aim was to receive bulldozer time to create resilient water diversion structures, while local farmers in Punjab asked their members of parliament for a solution for the desilting of irrigation channels. Accordingly, local Members of Parliament visited the sites where water can be diverted. This preceded the request to Irrigation Department official to determine the technical feasibility of designing a water diversion project and place it under the Public Sector Development Programme for resource allocation.

In **Sudan**, communication has been targeted towards the elaboration of scientific articles, with two papers being submitted to the Second World Irrigation Forum (WIF2) in November 2016.

In **Malawi**, the 'Africa to Asia' project was launched with two radio interviews that were conducted by the country focal person, and two interviews were done and aired on national television, focusing on the potential of using floods for crop production. Also, a newspaper article about the project was published in a daily newspaper to raise awareness about its objectives in Malawi and in addition, a project presentation was given during the annual conference of the Rainwater Harvesting Association of Malawi, held in June 2016. In line with this, a call for action in rainwater harvesting was made by the Chairman of the RHAM during a press conference.

Figure 6 Seed exchange among farmers from Punjab and Baluchistan, Pakistan



9. Lessons Learned and Way Forward

Various lessons have been learned during the reporting period, that can be used to improve activity implementation in the next year. A notable lesson for HRC in **Sudan** was the fact that close cooperation with WUAs and farmer groups, besides governmental partners, can lead to qualitatively higher research activities for the achievement of anticipated outcomes. In **Malawi**, it was found that there is a lot of information on FBL on the ground that has not yet been documented. A baseline survey that is geared towards the coverage and potential of rainwater harvesting and flood recession practices will be important to extent FBL practices in the country, also to inform practitioners and extension workers on FBL. SPO in **Pakistan** has experienced the positive effects of knowledge exchange among farmers from different provinces, and this should be strengthened in the future through the promotion of horizontal learning in the other countries. It is suggested as well that some funding can be allocated for short courses by farmers in different universities, for example on crop husbandry, crop water requirements and water application. The Network Development and Communication Plan offers tools and approaches to strengthen this farmer-to-farmer exchange.

Annexes

1. Business model canvases for a) Ethiopia, b) Pakistan, c) Sudan and d) Yemen, elaborated with the guidance of MetaMeta
2. Network Development and Communication Plan, elaborated by MetaMeta
3. FBLN Internship Programme Outline (draft)

Canvas Business Model for SpN Ethiopia Chapter

October 2016

<u>Partners</u>	<u>Key Activities</u>	<u>Value Proposition</u>	<u>Customer Relationships</u>	<u>Customer Segments</u>	<u>Beneficiaries</u>
<p>Universities</p> <ul style="list-style-type: none"> • Mekelle University; • Hawassa University; • Bahir Dar University; • Semera University; <p>Government</p> <ul style="list-style-type: none"> • Ministry of Water, Irrigation and Electricity; • Ministry of Agriculture; <p>Funding partners</p> <ul style="list-style-type: none"> • Four regional state IFAD-PASSIDP coordination offices; • IFAD; • European Union; • IGAD – IWRMP (Inland Water Resources Management Programme); • GIZ Ethiopia and Kenya • CASCAPE (Capacity building for Scaling up of evidence based best Practices in agricultural systems in Ethiopia); <p>Private Sector</p> <ul style="list-style-type: none"> • Local construction companies 	<p>FBFS Network established and strengthened</p> <ul style="list-style-type: none"> • Strengthen the farmer base of the network by incorporating three WUAs in two new regional states into the network, and reach about 200 active professionals and policy-makers who are member of the network; • Promote initiatives within the SpN Ethiopia through linking, knowledge and experience sharing and conflict resolution for improved water distribution, seed exchange; • Work on the acceptance of proposals and concept notes; <p>Knowledge development and solution management</p> <ul style="list-style-type: none"> • Assess together with farmers the need for new material and technologies and execute solution-oriented research; • Undertake large researches through application to national and international calls and collaborations; <p>Capacity building</p> <ul style="list-style-type: none"> • Undertake farmer-to-farmer experience and knowledge sharing events on topics like conflict resolution; • Training of professionals through regular short courses on FBFS and sand / subsurface dams at Mekelle University by involving professionals from Hawassa, Bahir Dar and Semera universities, partly as trainers and partly as trainees; • Support FBFS related curricula and student research; <p>Support to investment programmes and policies</p> <ul style="list-style-type: none"> • Develop and undertake new development projects and investment programmes, with WUA and regional water resource offices; • Training and preparation of exposure visits for policy makers within and outside the country; 	<ul style="list-style-type: none"> • Nurture a non-profit network of more than 200 professionals with knowledge and skills related to FBFS, including WUAs, farmers, policy makers and professionals; • Pioneer in (the design of) FBFS, and provide FBFS-related training, research and consultancy services with fund raised and grants allocated by funding partners; • Facilitate horizontal learning among WUAs and farmer leaders and promote the concept of self-evolving institutions in the field of FBFS that introduce practical solutions that improve farmers' livelihoods; • Strengthen the bond and good working relationships with universities, government agencies, and national and international funding partners who are dedicated to ensure FBFS in Ethiopia is performing well, through new concept papers and engagement with many players; 	<ul style="list-style-type: none"> • In consultation with farmers, improve the design of FBFS, identifying the bottlenecks faced by FBFS in various areas; • Face-to-face and written communications with farmer leaders and WUAs; • Promote the SpN Ethiopia Chapter and its work through various media, including newsletters, websites and email, social media such as Facebook and twitter, brochures, television and radio, demonstration activities, workshops and exhibitions; • Active outreach with presentations, concept notes, communication and information sharing, to increase the visibility of the SpN Ethiopia Chapter. 	<ul style="list-style-type: none"> • WUAs in the Raya valley and Konso want to build FBFS that ensure equitable sharing and distribution of floods among male and female-headed households, and all segments of the community, including the elderly, youth and disabled people; • Professionals want to work on improved spate system design and management; • Policy makers in Ethiopia want spate systems to contribute to food security of farmers. 	<ul style="list-style-type: none"> • Farmers in the Raya valley, Konso, Afar and Amhara regions; • Communities and WUAs who use FBFS for their livelihood.

<u>Governance</u> <ul style="list-style-type: none">• Explore the possibilities to make the SpN Ethiopia Chapter a legally independent institution;• Coordination and management of activities and resources is overseen by the chapter secretariat at Mekelle University;• Monitoring and evaluation of the technical performance is done by the chapter secretariat at Mekelle University;• Application for research and training grants is done together with Hawassa, Bahir Dar and Semera universities, government agencies and NGOs. Resources will be shared based on contributions and involvement;• MoU will be signed with main FBFS partners, including WUAs and local organisations;• The SpN Ethiopia Chapter will assist WUAs to prepare concept papers and introduce them to donors and government agencies.	<u>Key Resources</u> Human resources <ul style="list-style-type: none">• Unique experience and capacity to deliver practical, solution-oriented trainings and consultancy services related to FBFS systems design and management;• Strong coordination and management units;• Network of professionals within and outside the country to which SpN Ethiopia can link; Physical resources <ul style="list-style-type: none">• Tools, manuals, books, Practical Notes (in local languages), website (e-library) and access to the waterchannel.tv;• Essential notes and videos can actively be communicated to WUAs;• Training facilities such as computers and projectors;• The annual regional short course “Integrated Watershed Management and Flood-based Farming Systems in ASAL areas of the Horn of Africa”, which has been held for three consecutive years;• Showing goodwill and network, and being seen as active partners.		<u>Channels</u> <p>Services are delivered through the:</p> <ul style="list-style-type: none">• Network of professionals,• Improved farmer-to-farmer communication;• Linkages with local partners and NGOs.		
<u>Cost structure</u> <ul style="list-style-type: none">• The SpN Ethiopia Chapter will support WUAs and farmer leaders regularly through training, the organization of farmer-to-farmer horizontal learning events and fairs between different regions in Ethiopia, solution-oriented action research with Farmer Research Groups on improving the productivity of flood water, water-related conflict resolution techniques, and flood water governance;• The SpN Ethiopia Chapter will support professionals to provide training and conduct feasibility studies according to the local need.	<u>Impact</u> <ul style="list-style-type: none">• Farmers in the Raya valley, Konso, Afar and Amhara regions will have sustainable access to improved and well-informed FBFS practices and techniques;• Mid-career professionals will have benefited from the annual regular FBFS short course;• Rural poverty is reduced as a result of increased yields;• Reducing effects of climate change through the promotion of groundwater recharge;• Active, dynamic and well-informed WUAs and civil society groups in different FBFS areas;• FBFS is part of the curriculum and research programmes at the Mekelle, Bahir Dar, Hawassa and Semera Universities.	<u>Revenue Streams</u> <ul style="list-style-type: none">• IFAD and EU grants;• In collaboration with Ethiopian government agencies and NGOs, funds can be raised and additional grants obtained:• The SpN Ethiopia Chapter will approach funding partners for the financing of trainings and research. Furthermore, it will apply to international and national open calls and consultancy bids;• Consultancy services in the field of improved FBFS water management techniques and engineering designs;• Joint proposal writing together with local and international organizations;			

Business Model Canvas for SpN Pakistan Chapter

October 2016

Main objective in next five years

An independent, registered entity having a network in 15 spate irrigation systems in Pakistan, with an expanded membership among farmers and Water User Associations.

<u>Partners</u>	<u>Key Activities</u>	<u>Value Proposition</u>	<u>Customer Relationships</u>	<u>Customer Segments</u>	<u>Beneficiaries</u>
<p>University</p> <ul style="list-style-type: none"> Ghazi University, D.G. Khan Punjab. Arid Agriculture University, Rawalpindi Punjab; Gomal University, D.I. Khan KPK; Balochistan University of Information Technology and Management, Balochistan; <p>Civil society</p> <ul style="list-style-type: none"> Research and Development Foundation Hyderabad Sindh. Help, Rajanpur Punjab Doaba Muzaffar Garh, Punjab Oxfam Novib Country Office, Islamabad Intercooperation SPO Islamabad, KPK and Balochistan. SDC / VEER, Islamabad and D.I. Khan KPK Tharparkar PWDP, Sindh. Farmer networks and WUAs in D.I. Khan, Punjab, Balochistan and Sindh are partners in research. Local media in the area and provinces 	<p>FBFS Network established and strengthened</p> <ul style="list-style-type: none"> Strengthen the farmer base of the network by including 8 WUAs; Knowledge transfer, e.g. introduction of beer grafting, and farmer-to-farmer knowledge exchange visits in Sindh and Balochistan. Linking farmers with Balochistan Irrigation and Agriculture Department. Prepare and assess together with farmers the needs of new material, particularly in agroforestry, e.g. by plantation of (acacia) trees at the field level to cater the needs of firewood and enhance income. Undertake new crops trial with WUA Khokhar and Tuk Ganda (Balochistan) and continue seeds exchange, while including political leaders, government. Work on the acceptance of proposals and concept notes; <p>Knowledge development and solution management</p> <ul style="list-style-type: none"> Documentation and support of applied research in 1) management of soil moisture and fertility in Balochistan, 2) water governance and conflict mitigation in Sindh, and 3) improvement of water diversion and distribution. Settlement of water distribution issues at six dispersal structures in Bhag, Balochistan. <p>Capacity building</p> <ul style="list-style-type: none"> Support FBFS related curricula and student research; <p>Support to investment programmes and policies</p> <ul style="list-style-type: none"> Develop projects and investment programmes, with WUA Shadi Wala and Lakhani and WUA Litra in D.G. Khan for new projects of the Punjab Irrigation Department, and with WUA Khatoor in Balochistan. 	<ul style="list-style-type: none"> Comprehensive understanding of a large number of FBFS systems in Pakistan, and provision of solutions through write-ups, concept notes, water distribution management, and water beneficiary overviews for areas that need rehabilitation of systems or management of upstream-downstream linkages; Pioneer in FBFS, and establish SpN's position through presentation and publication sharing with the donor community, universities, and government departments; Strengthening the bond between farmers and specialised agencies in FBFS in Pakistan, through new concept papers and engagement with many players; Non-competitive service provision in spate crops, husbandry, moisture retention and fertility techniques and news crops introduction in the face of climate change. 	<ul style="list-style-type: none"> Active outreach with presentations, concept notes, communication and information sharing Promote self-evolving institutions and horizontal learning at the local level; Identifying the bottlenecks faced by FBFS in various regions. 	<ul style="list-style-type: none"> 6 WUAs in Bolan Balochistan interested in winter crop change, while intensifying on grain production; WUA Makhan Bella in Sibi, Balochistan interested in strong and improved water diversion structures; WUAs of Lakhani and Shadi Wala in D.G. Khan require support on drainage improvement; WUA Kot Qaisrani in D.G. Khan is interested in diversion of water from Sanghar river to increase water availability for crop Production; WUA Vehoa Shumali Litra in D.G. Khan, Punjab is interested to divert water from the catchment of the nearby Kaura River to enhance annual returns. The own catchment is small and does not yield enough 	<ul style="list-style-type: none"> Farming households (small and larger landowners) in various regions of Pakistan; Landless tenants; Females and children through better drinking water availability.

<u>Governance</u> <ul style="list-style-type: none">• Register as MetaMeta Pakistan, and become the lead and support agency on FBFS throughout Pakistan on a for profit basis. The SpN Pakistan secretariat remains at SPO Islamabad until completion of registration;• Make MoU with main partners on FBFS activities, including WUAs and local organisations;• SpN Pakistan will assist WUAs in preparation of concept papers and introduce them to donors and government agencies.	<u>Key Resources</u> <ul style="list-style-type: none">• Database of member WUAs and their constituency;• Books, Practical Notes (in local language), website (e-library) and access to thewaterchannel.tv;• Essential notes and videos will be actively communicated to WUAs;• WUA WhatsApp Groups will be created to send and receive video clips and guiding notes, and to enable farmer-to-farmer communication;• Showing goodwill and network, and being seen as active partners.		<u>Channels</u> <ul style="list-style-type: none">• WhatsApp Groups;• Farmer-to-farmer communication enhancement;• Linkage with local partners and NGOs.	water to irrigate large tracks of lands.	
<u>Cost structure</u> <ul style="list-style-type: none">• SpN Pakistan will continue to intensify support to farmers on a seasonal basis for crop cultivation, seed treatment and disease control. Seed exchange for demonstration of good practices and introduction of lost crops or new crops will continue, just like farmer to farmer learning visits. Moreover, SpN Pakistan will assist in knowledge development and solution management, such as in water-related conflict resolution and soil mulching techniques;• New initiatives will be identified, and concept notes and overview papers will be forwarded to local government and politicians. SpN Pakistan will strive to find donors and financial resources for small scale projects on field water management, water management structures, drinking water supplies, system rehabilitation and efficiency enhancement, rangeland development, animal drinking water ponds, drinking water reservoirs, water purification techniques and training, agro-forestry and landscape development. Screening studies can be carried out for topics that need additional financial and / or human resource support.• SpN Pakistan can provide for the cost of food when WUA members meet for SpN Pakistan purposes. Transportation costs of experts can be covered when they are in the feasibility phase of preparing projects.		<u>Impact</u> <ul style="list-style-type: none">• Active and dynamic WUAs and civil society groups in different regions who are well-informed on improved FBFS;• FBFS are part of the curriculum and research programmes at the Arid Agriculture University in Rawalpindi and the Ghazi University in D.G. Khan.• FBFS projects that are started address all key aspects of sound FBFS management, and follow the right approach.		<u>Revenue Streams</u> <ul style="list-style-type: none">• IFAD grant;• Research grant will be explored to establish a Centre of Excellence in Pakistan on FBFS;• Apply to open calls;• Joint proposals – pitch at USAID, Dfid, JICA, PPAF, Oxfam and LEAD Pakistan;• Climate funds – RINA;	

Canvas Business Model for SpN Sudan Chapter

October 2016

<p><u>Partners</u></p> <p>Research institutions and universities</p> <ul style="list-style-type: none"> • Hydraulics Research Centre • Agricultural Research Corporation of Kassala State • Kassala University; • Khartoum University • Gezira University <p>Civil society</p> <ul style="list-style-type: none"> • MuslimAid <p>Government</p> <ul style="list-style-type: none"> • Ministry of Agriculture; • Gash Agricultural Scheme; • Water User Associations 	<p><u>Key activities</u></p> <p>FBFS Network established and strengthened</p> <ul style="list-style-type: none"> • Promote network development by actively involving WUAs. • Provision of training in horizontal learning to WUAs and farmer leaders. <p>Knowledge development and solution management</p> <ul style="list-style-type: none"> • Undertake solution-oriented research, such as on the application of optimal Crop Water Requirements (CWR), and guidelines creation; • Provision of practical support to WUAs, such as on milk churners, and the sharing of breeds and seeds. <p>Capacity building</p> <ul style="list-style-type: none"> • Active collaboration with selected universities to integrate FBFS as part of the curriculum. <p>Support to investment programmes and policies</p> <ul style="list-style-type: none"> • Explore options for the formulation of investment programmes by the government that are well-informed in terms of improved FBFS methods. 	<p><u>Value proposition</u></p> <ul style="list-style-type: none"> • Comprehensive understanding of the local situation in the key FBFS areas in Sudan, and making this knowledge useful to WUAs and their constituencies; • Knowledge on good practices and improved techniques related to FBFS management are delivered to WUAs; • Contribution to capacity building in direct cooperation with universities and WUAs; • Various non-competitive services are provided to WUAs. • Increased visibility for FBFS and related issues, as well as the SpN Sudan Chapter and its members (WUAs and farmer leaders). 	<p><u>Customer relationships</u></p> <ul style="list-style-type: none"> • Promote self-evolving institutions and horizontal learning at the local level; • Tailor-made approach on knowledge exchange adopted towards WUAs, based on an assessment of their specific, local needs; • Undertake joint activities with WUAs to ensure that farmers gain adequate knowledge about improved FBFS management and good practices from other regions and countries. 	<p>Value created for:</p> <p>Water User Associations that operate in FBFS areas</p> <p>Policy makers and decision makers in the field of land and water management</p> <ul style="list-style-type: none"> • Gash Agricultural Scheme, and the Ministry of Agriculture through nominated contact persons. 	<p><u>Beneficiaries</u></p> <ul style="list-style-type: none"> • 40.000 farmers located in the Gash Agricultural Scheme, and farmers operating in other FBFS areas in Sudan including the Tokar delta and Khor Abu Habil; • Local markets (indirectly); • Communities in the Gash River basin, Tokar delta and Khor Abu Habil (indirectly).
<p><u>Governance</u></p> <ul style="list-style-type: none"> • HRC takes the lead as SpN Sudan secretariat, and oversees good planning and practical implementation of FBFS activities in close cooperation with WUAs and farmer leaders; • HRC explores the option of establishing an independent legal structure to host FBFS initiatives in Sudan. 	<p><u>Key resources</u></p> <ul style="list-style-type: none"> • Good scientific knowledge on FBFS; • Close linkage to a network of WUAs that operate in various FBFS areas in Sudan; • Initial financial resources, and the human resources to leverage additional funding for FBFS initiatives 		<p><u>Channels</u></p> <ul style="list-style-type: none"> • Direct contact with WUAs to stimulate farmer-to-farmer communication, self-evolving institutions and horizontal learning between WUAs as well as farmers in Sudan; • Seminars to present outcomes of FBFS research and horizontal learning to engage policy and decision makers. 		

Cost structure

- Administrative costs and network support costs (facilitation of horizontal learning efforts with WUAs and farmers);
- Resources for research activities (e.g. equipment, software).

Impact

- Improved agricultural and water management practices in FBFS areas, through strengthened research and capacity;
- Stronger networking and stimulation of horizontal learning, translated in increased membership of WUAs in the Gash, as well as other FBFS areas in Sudan.

Revenue streams

- IFAD / EC funding;
- CGIAR / WLE funding;
- Actively engage in the leverage of other resources by presenting the FBFS case to funding partners operating in Sudan. These include international donors as well as government agencies, e.g. the Ministry of Water.

Business Model Canvas for the SpN Yemen Chapter

October 2016

Main objective in next five years

To develop and strengthen the SpN Yemen Chapter, in terms of communication, coordination and cooperation with WUAs and farmer leaders, as well as local, regional and international funding partners and government agencies.

<u>Partners</u>	<u>Key Activities</u>	<u>Value Proposition</u>	<u>Customer Relationship</u>	<u>Customer Segments</u>	<u>Beneficiaries</u>
Government <ul style="list-style-type: none"> Local councils and administration in FBFS areas; Agriculture and water departments and offices in FBFS areas; Civil society <ul style="list-style-type: none"> Union of Water User Associations; Agricultural collaborative associations and agricultural federations; Funding partners <ul style="list-style-type: none"> General Irrigation Department, Ministry of Agriculture; Tiham Development Authority (TDA) 	FBFS Network established and strengthened <ul style="list-style-type: none"> Developing country database of WUAs and farmer leaders in Yemen's FBFS areas, and actively engage with them to promote exchange; Promote exchange on improved FBFS practices among WUAs in different FBFS areas of Yemen, and coordinate communication and collaboration with local, regional and international partners from which WUAs and their constituency can benefit; Knowledge development and solution management <ul style="list-style-type: none"> Document good FBFS practices, knowledge and experiences at the local level by using video. Disseminate these within the SpN Yemen Chapter and link to the international community of practice, also by making practical notes and conducting action-oriented research; Provide technical assistance to WUAs and investment agencies on topics that are closely linked to FBFS management, such as crop water management, crop productivity, water distribution systems, and practical solutions such as improved crops, breeds and tools like milk churners; Capacity building <ul style="list-style-type: none"> Establish Farmer Learning Centres where WUA members can upgrade their capacity in different fields, including awareness, communications and exchange of knowledge and experience; Support to investment programmes and policies <ul style="list-style-type: none"> Established suitable communications between WUAs and government agencies and international partners, to promote FBFS investments in areas that require the rehabilitation and improvement of structures and practices. 	<ul style="list-style-type: none"> Comprehensive understanding of a large number of FBFS systems in Yemen, and promotion of knowledge and experience exchange between WUAs and their constituencies in different FBFS areas; Facilitate capacity building for WUAs members through farmer learning centres, in a way that promotes self-evolving institutions and horizontal learning among farmers; Promote solution-oriented research on FBFS, and consultancy services that benefit WUAs in the effective and efficient maintenance and improvement of their systems; Creation of a joint platform, that establishes and maintains linkages between WUAs that operate in FBFS areas, and national and international development partners, to increase and maintain interest and investments in FBFS that benefit WUAs and their constituency; 	<ul style="list-style-type: none"> Facilitate WUAs to access and introduce improved practices on FBFS through capacity building activities that stimulate horizontal learning and self-evolving institutions; Active outreach with presentations, concept notes, communication and information sharing; 	<ul style="list-style-type: none"> Water User Associations; Irrigation Water Councils; Agricultural collaborative associations and agricultural federations; Policy makers and decision makers that work in FBFS areas. 	<ul style="list-style-type: none"> Farmers, both WUA members and non-WUA members; Local people who work in FBFS areas, and seek to increase their income from agricultural activities.

<p><u>Governance</u></p> <ul style="list-style-type: none"> • Establish the SpN Yemen Chapter as a legally independent institution in Yemen, and in the meantime host it at WEC – Sana’a University; • Create MoU’s between SpN Yemen Chapter and WUAs that operate in FBFS areas, as well as development partners, with consideration to the law on associations and foundations; • Develop service contracts with partners were appropriate; 	<p><u>Key Resources</u></p> <ul style="list-style-type: none"> • Human resources with a comprehensive understanding of FBFS issues, knowledge of the different FBFS areas and their partners in Yemen, and willingness to operate as a facilitating interface between different partners to bring benefits to WUAs in FBFS areas, and their constituencies; • Accumulated knowledge and experience on horizontal learning and self-evolving institutions for the creation of the farmer network on FBFS; • International donors such IFAD, NUFFIC and the European Commission, as well as a funding base provided by local and regional partners. • Financial and technical support from government agencies through ministries, authorities, and departments, as well as from non-government water societies and agricultural cooperative associations; 		<p><u>Channels</u></p> <p>WUAs</p> <ul style="list-style-type: none"> • Visits and meetings in the field, fairs and workshops; • Telephone calls, SMS, WhatsApp and email; <p>Local communities and government</p> <ul style="list-style-type: none"> • Television and newspapers; • Notifications for events that are written in public places; <p>Funding partners</p> <ul style="list-style-type: none"> • Meetings, workshops and conferences; 		
<p><u>Cost structure</u></p> <ul style="list-style-type: none"> • Develop country database of WUAs in FBFS areas of Yemen (US\$9.500); • Introduce SpN to WUAs in FBFS areas in Yemen by conducting workshops and fairs (6 fairs - US\$18.000); • Knowledge development of WUA members by organising and implementing awareness workshops in farmer learning centres (3 workshops - US\$24.000); • Organise cross-regional farmers' knowledge and experience sharing fairs in Yemen (3 fairs – US\$24.000); • Organise a farmer fellowship to exchange farmers' knowledge and experience between international partners (2 farmers - US\$15.000); • Prepare Practical Notes and communication products for the following research themes: water governance and conflict mitigation; management of soil moisture and fertility; and improvement of water diversion and distribution efficiency (US\$3.000); • Implement at least two solution-oriented researches, which aim to solve water challenges that are experienced by WUAs in FBFS areas (one in every region – US\$20.000). 	<p><u>Impact</u></p> <ul style="list-style-type: none"> • Strong collaboration among WUAs in the three main spate areas of Yemen, facilitated by the SpN Yemen Chapter; • Successful documentation of good practices and experience in Yemen’s FBFS areas, that are shared at the national and international level; • Improved FBFS knowledge and experience among WUAs and their constituencies in Yemen, through exchange and dissemination at the national and international level. 	<p><u>Revenue Streams</u></p> <ul style="list-style-type: none"> • Engage in active outreach to national and international funding partners, by creating a presentation on the SpN Yemen Chapter that can inform and catalyse further investments; • Establish collaboration between WUAs and local, regional and international partners, to create interest among funding partners to invest resources that address local needs in FBFS areas of Yemen; • Target government agencies to support improved FBFS practices and structures among WUAs, through ministries, authorities and departments. 			

FLOOD-BASED LIVELIHOODS NETWORK



NETWORK DEVELOPMENT & COMMUNICATION PLAN

's-Hertogenbosch, October 2016

1. INTRODUCTION

1.1 Why a network development and communication plan?

The Flood-Based Livelihoods Network has taken up two ambitions as of now. The first is to become a farmer-based network, with strong grassroots ownership. The second is to expand the thematic scope from spate irrigation to more encompassing flood-based livelihoods (FBL). These two ambitions have far-reaching implications for the way in which partners within the network communicate, and also on how the network communicates as a whole towards external partners and the public in general. To maximize the benefits for Water User Associations (WUAs) and farmer groups, the Flood-Based Livelihoods Network Foundation and its country chapters aim to network intensively at different scales with government agencies, research institutions, civil society, private sector and international funding partners. This Network Development and Communication Plan brings the current plans and initiatives together under a broader umbrella and outlines the way in which the Network aims to maximize impact on FBL by stimulating communication among various target groups, and by embracing the concepts of horizontal learning and self-evolving institutions. Communication significantly contributes to network success, as it:

- Forges strong partnerships through the systematic use of joint communications;
- Facilitates a better understanding of goals and objectives among target groups;
- Encourages others to perform or participate in certain activities required to achieve project goals, and improve the operational effectiveness to achieve these goals;
- Increases dialogue and cooperation at the national and international level;
- Increases the use of communication products and activities as trusted sources of information;
- Encourages the use of change makers to raise awareness on the benefits of certain behaviour;
- Raises awareness of issues and possible solutions among a wider audience, and educates people in how to apply new solutions;
- Builds coalitions and alliances around shared communication outputs.

1.2 About this document

Title	Flood-Based Livelihoods Network Development and Communication Plan
Developed by	MetaMeta Research and Flood-Based Livelihoods Network Foundation
Version	1.0 (November 2016)
Purpose	This plan aims to ensure that the two ambitions of the Flood-Based Livelihoods Network are effectively implemented, and that all information exchanged among target groups serves the ambitions of becoming farmer-based and FBL-centred.
Distribution	This plan will be shared with all programme and communication staff at: <ul style="list-style-type: none">▪ IFAD / European Commission▪ IWMI▪ MetaMeta / Flood-Based Livelihoods Network Foundation / ICRAF / IWMI Myanmar▪ Endogenous partner organisations in Afghanistan, Ethiopia, Kenya, Malawi, Myanmar, Pakistan, Somaliland, Sudan and Yemen

This Plan is a living document, and it requires regular review and amendment to make it effective. Comments, feedback and suggestions from partners and members are therefore invaluable to allow future versions of this document to improve the ways in which successes, experiences and lessons of the network are shared within and beyond the FBL Network. For further information on the FBL Network, please contact Daniel Wiegant (dwiegant@metameta.nl) or Dr. Frank van Steenberg at MetaMeta Research [fvansteenbergen@metameta.nl].

This document is prepared in support of the IFAD and EC funded project 'Africa to Asia – Testing Adaptation in Flood-Based Resource Management' and aims to be a base document for the FBLN in the coming years. This document provides a guidance for the entire network, to ensure a certain level of uniformity among the country chapters and sub-projects that are implemented through the FBL Network. The Plan helps the chapters to play a better role in a changing network environment, as the implications on the country chapters of the ambition to become farmer-based and FBL-centred need to be carefully considered.

2. TAPPING INTO THE POTENTIAL OF FLOOD-BASED LIVELIHOODS

2.1 Harnessing floods in the context of climate change

Agricultural systems are traditionally classified into two categories, being either rain-fed or irrigated. However, this classification leaves a huge gap, as many farming systems depend on seasonal floods mostly in West Asia, South Asia, Central Asia, North Africa, East Africa and Latin America depend on seasonal floods, and thus fall outside conventional irrigation. Flood-Based Livelihoods (FBL) depend on flood events that may vary in duration from a few hours to a period of months during the rainy season. The flood events may be regulated to some degree with floods being diverted or the rise and recession of floods being guided. In general, however, these specific livelihood systems largely adjust to floods rather than fully control them. Flood-based farming can be combined with the use of groundwater, which greatly enhances their productivity. One of the most prominent types of FBL is spate irrigation, that can be found in arid and semi-arid regions where highlands border plains. In this unique water management system, flood water from mountain catchments is diverted from often meandering river beds and spread over large areas. It is a risk-prone practice as a result of the unpredictable nature of the floods as well as the frequent changes to the river beds from which the water is diverted. Hence, it is often the poorest segments of the rural population whose livelihood and food security depends on the spate flows.

Substantial local wisdom has developed to organise flood-based livelihood systems and manage both the flood water, heavy sediment loads that go along with floods, and to conserve soil moisture after flooding has taken place. In developing FBL, it is key to appreciate the many ecosystem services that are provided by flood plains, ephemeral rivers and natural depressions. Besides important agricultural functions, flood-prone areas serve several other important ecological functions (downstream flood mitigation, water buffering, migratory bird habitat, aquatic biodiversity, water purification services, CO₂ sequestration), and social functions, with floodplains being inhabited by numerous communities. There is hence a need to take an integrated approach towards the development of FBL, when seeking to make use of the agricultural potential.

Flood-based farming has never received the same amount of attention from development agencies or tax authorities compared to perennial irrigation or even rain-fed agriculture. Generally, flood-based farming is associated with low returns per labour, great variability in income between good and bad years and a high degree of social organisation needed to maintain the systems. Nevertheless, with ongoing population growth and subsequent demand for more agricultural products, FBL are on the rise in low income countries such as Afghanistan, Ethiopia and Yemen.

2.2 Creation of the Spate Irrigation Network

The Spate Irrigation Network was created in 2003 with the intention to contribute to the development of practical knowledge and national and local capacity to systematically and comprehensively support the productive use of spate irrigation systems for poverty alleviation, inclusive growth and ecosystem integrity. The network has been facilitating the exchange of experiences and good practices between countries as part of South-South cooperation, initiating and supporting new investment initiatives and policies, and mainstreaming spate knowledge into education and training material. Promising practices related to flood and soil moisture management, and utilisation measures, introduction of neglected or underutilised crops and varieties between Africa and Asia, and innovative approaches focused on adaptation and governance have been introduced over the years. Many of these have been captured in informative videos, guidelines, practical notes and overview papers. These are all available through open access sources, including spate-irrigation.org and thewaterchannel.tv

At present, the network consists of more than 800 professionals, practitioners and farmers, and is run by a small international secretariat in the Netherlands. Country chapters exist or are being created in ten impact countries (Afghanistan, Bangladesh, Ethiopia, Kenya, Malawi, Myanmar, Pakistan, Somaliland, Sudan and Yemen). Over the years, the network has received support from a variety of funding partners, including IFAD, World Bank / EKN, UN Water-DPC, UNESCO-IHE/DUPC and FAO.

2.3 Placing WUAs at the core of the network

Central to the FBL Network approach is to bring FBL change makers at the grassroots together through the country chapters, and to take stock of good practices related to FBL at the local level. Involvement

of farmer groups is a key factor to achieving rapid and sound rural development and it is the network's aim to increase the voice and role of local stakeholders in generation and exchange of knowledge and skills. When working with FBL, attention should go to giving an impulse to WUAs, as these have a positive impact on farming system performance in many countries and situations. For the network to be relevant at the local level, it is key to have a sound understanding of farmer needs. Standing close to the farmers' reality, and being grounded in specific rural settings, WUAs have good knowledge on the local needs of farmers. One way for them to engage in a broad range of activities, and take advantage of economies of scale is through networking, in which they can access improved practices in land and water management that increase agricultural productivity.

Network development efforts should be focused on creating an enabling environment in which WUAs can self-evolve to overcome specific challenges by themselves, based on actual need (Bruns, 1992). This enabling environment for example is a strong tie between various WUAs and the host organisation of a FBLN country chapter, which has as a primary objective to facilitate the WUAs with tools and resources to promote learning and exchange. The FBLN aims to promote horizontal learning and self-evolving institutions among WUAs that operate in flood-prone areas. An important strategy that is pursued in this regard is the establishment of Farmer Learning Centres within existing WUAs in flood-prone areas. These learning centres should constitute a rich information resource that could give a renewed impulse to the optimal use of these systems, thereby contributing to the scaling up of meaningful FBL investments.

3. BECOMING A FARMER-BASED NETWORK

3.1 Strengthening and grounding the FBL Community of Practice

Organisations build relationships to create opportunities for joint learning, to increase understanding on certain topics and improve current practice. Networks can function as sources of innovation to upgrade the quality of activities, outputs and impact, to facilitate a collective learning process, and to contribute to a scaling up of initiatives among an international audience. Networks have peer effects, with organisations comparing and competing with each others, and networks also help to establish coalitions. The FBLN is such a community of which its contributors have shared interests and a shared repertoire of experiences, stories, tools and ways to address recurring challenges. The network has been engaging in joint activities and discussions, and has facilitated contact between practitioners in different institutions around the world, thanks to its online platform. A wide variety of Overview Papers, Practical Notes, training materials and videos can be found on the website, both in English as well as in local languages. Box 1 provides an overview.

Box 1 List of FBLN Overview Papers, Practical Notes, training materials and videos

Overview Papers:

1. The Potential for the Development of Spate Irrigation Systems in Pakistan ([English](#) | [Arabic](#) | [Urdu](#) | [Sindhi](#))
2. Spate Irrigation in the Horn of Africa: Status and Potential ([English](#))
3. Flood Based Farming Practices in Ethiopia ([English](#))
4. Status and Potential of Spate Irrigation in Ethiopia ([English](#))
5. Flood Based Farming Systems in Africa ([English](#))
6. Spate Irrigation in Morocco ([English](#))
7. Flood Water Spreading and Spate Irrigation in Iran ([English](#))
8. Flood Water Based Irrigation in Kenya ([English](#))
9. Spate Irrigation in Myanmar ([English](#))
10. Spate Irrigation in Afghanistan ([English](#))
11. A Wise Use of Flood Water Resource at the Mekong Delta of Vietnam ([English](#))
12. The Socio Economic Impact of Modern Spate Irrigation Systems in Yemen ([Arabic](#))
13. Spate Irrigation Systems in Raya Valley, Ethiopia ([English](#))
14. Flood Based Irrigation in the White Volta Sub Basin: Status and Potential ([English](#))
15. Floodplains in Mozambique: The Scope for Shallow Well Development ([English](#))
16. Floodplains in Zambia: The Scope for Shallow Well Development ([English](#))
17. Status and Potential of Groundwater Use in Ethiopian Floodplains ([English](#))

Practical Notes:

1. Spate Irrigation, Livelihood improvement and Adaptation to Climate Variability ([English](#) | [Arabic](#))
2. Improved Engineering in Spate Irrigation Systems ([English](#) | [Arabic](#) | [Urdu](#))

3. Constructing Effective Earthen Diversion and Guide Bunds (English | Urdu | Arabic)
4. Command Area Improvement and Moisture Conservation (English | Amharic | Urdu | Arabic)
5. Oilseed Crops for Spate Irrigated Farming in Pakistan (English | Urdu | Sindhi)
6. Food Legumes (Pulses) for Spate Irrigated Farming in Pakistan (English | Urdu)
7. Sorghum Production under Spate Irrigation Systems (English)
8. Minor Crops and Trees in Spate Irrigation (English | Urdu | Sindhi)
9. Drinking Water Ponds in Spate Irrigation Areas in Pakistan (English | Urdu | Arabic)
10. Improving Local Grain Storage in Pakistan (English | Urdu)
11. Indigenous Trees (Arabic)
12. Tigrinya Indigenous Spate Irrigation (Tigriniyan)
13. Setting Up Acacia Ehrenbergiana (Salam) Plantations in the Tihama Region of Yemen (English | Arabic)
14. Desert Mushrooms and Truffles in Pakistan (English | Urdu)
15. Alternative Concepts of Water Storage in Spate Areas in Pakistan (English)
16. Supply and Value Chains of Organic and Niche Crops in Spate Ecologies (English)
17. Design Guidelines for Lowland Spate Irrigation Systems (English)
18. Reducing Women's Work Load by Electric Milk Churners (English)
19. Guar Production under Spate Irrigation Systems (English)
20. Cotton Planting (Arabic)
21. Traditional Spate Irrigation Systems in Al-Hajjareen – Dawan – Hadramut (English)
22. Sesame planting (Arabic)
23. Livestock in Yemen (Arabic)
24. Livestock Breeds in Spate Irrigation (English)
25. Controlling and/or Using Prosopis Juliflora in Spate Irrigated Systems (English)
26. Codifying Water Rules and Rights in Spate Irrigation (English)

Training Materials:

Training materials have been developed related to water and soil management, agronomy, spate engineering, sediment transportation, as well as institutions, participatory processes and livelihoods. The materials can be found on: <http://spate-irrigation.org/resource-documents/training-material/>

Videos:

Video-lectures by leading FBL professionals can be found on: <http://spate-irrigation.org/video-lectures/>
In addition, over seventy spate irrigation-related videos and blogs can be found on: <http://thewaterchannel.tv>

One of the main impediments for the quick uptake of good practices has been the one-sidedness of traditional communication processes. Many practices promote linear and exclusive ways of thinking rather than that they inspire people to apply new better practices that allow them to adapt effectively to rapidly changing circumstances. Taking on new practices however is a process of interplay among individuals and groups. The aim of the FBL Network is to strengthen critical thinking through dialogue and exchange, to better understand and intervene in FBL contexts that are complex and defy simple analysis. By becoming a farmer-based network, the FBLN community will:

- Build a community with shared interest and concerns by stimulating peer-to-peer interaction;
- Provide an environment for learning and exchange of ideas between farmers, WUAs, scientists and decision-makers that often results in innovative farming and production strategies;
- Provide venues for farmer education, mentoring, outreach and communication of results;
- Serve as a platform to rapidly assess the risks and benefits for adoption of various new irrigation, agronomic and environmental practices;
- Provide an effective way for agricultural professionals to disseminate practices from outside that may be beneficial to specific contexts, and fine-tune recommendations to specific field conditions;
- Collect data in a scientific manner to help farmers make better management decisions and manage production risks;
- Develop local leaders in FBFS communities to promote and communicate the network's role;
- Help decision-makers to quantify the economic benefits of FBFS investment programmes;
- Help the overall FBFS community to rapidly adopt promising new technologies and practice; and

A key concern for the FBL network is to ensure added value to WUAs and farmer communities by creating a space for innovation, experimentation and learning that revitalises itself. Networks that are focused on well-defined themes and niches, like flood-based livelihoods, have generally achieved much

more visible results, both internally and externally, and can obtain a much higher degree of commitment and enthusiasm from members.

Each region has its unique opportunities, with variations in irrigation and cropping systems, stakeholders, practices, governance and concerns. The FBL Network is flexible to address a variety of concerns and include those unique to a region. When network members consider the network's priorities as their own, they are motivated by self-interest because networking has an added-value to their daily work. WUAs may act as change agents by communicating with their constituency.

Table 1 Private and public benefits of farmer networks

Private benefits (to the farmer)	Public benefits (to the FBL community and society)
Assist in optimising yields through improved practice, often meaning increased income for the farmer	Improved management of natural resources and less loss of water
Greater confidence in management through new data that is specific and relevant to the farmer's operation	Greater awareness around local FBFS issues within the FBFS community and how to ameliorate impacts
Leadership opportunities for local farmers, and a chance to chart a path toward improvement	A structure and model that can be duplicated anywhere and used to test any number of scenarios
Opportunities for the local farming community to change and progress	A platform for investment agencies to quantify the economic and ecological benefits of programmes

Source: *Chapman et al., 2016*

3.2 Stimulating the use of new good practices

Agricultural innovation systems are shifting towards systemic partnership-based co-innovation processes in which farmer groups play a strong role. Farmers are not seen as the target group, but are at the forefront of exchange and learning. Farmers have considerable innovation capacity, based on their need to address practical challenges and the knowledge and connectedness of farmers within and between groups. Capacity development and societal change are unthinkable without further investment in the improvement of learning-oriented networking among relevant actors in the community of practice. Through systematic use of horizontal learning, good practices can move around fast and serve as the basis to strengthen the network of WUAs.

Horizontal learning

Bringing groups together that have similar interests and challenges can unleash much energy, both by learning from each other as well as to create a self-evolving movement of new institutions. Horizontal learning deals with the exchange of good practices, knowledge and ideas between peers or groups of peers, in which there is no monopoly on knowledge. It entails people coming together to see, observe, discuss and learn. With people being together who have first hand experience, such experiential learning allows for a much finer texture of knowledge, with all details of reality and the evidence as given by those that live in it. Such exchange can take place in the form of community coaching, in which several communities give support to one another, and evaluate each others strengths and weaknesses on a range of issues. There are three layers: the sharing of already known good practices; discovering good practices that are worth sharing; and jointly developing innovations and new good practices. An important step is to uncover and capture what is there. Exchange visits are a powerful tool in horizontal learning, in which the exchange can happen in two ways. Either the carrier of good practice is visited or the carriers of good practices visit the area where a practice can be introduced, to provide guidance.

A powerful horizontal learning tool is to establish farmer learning centres, whereby farmers who are the owner and inventor of good practices provide training to others (against a financial compensation). The centres stimulate reciprocal sharing of new knowledge and skills between farmers, and as farmers start learning from each other, it will become easier to continue learning and testing techniques with other crop seeds, as creativity and learning spark human capital building. Seeing other farmers face similar problems, and being able to solve such problems by themselves, proves an important source of motivation and interest (Chowdhury et al., 2011). Such initiatives are sustainable since they incorporate local knowledge and skills, and use and promote resources that are available on the farm. Farmer specialists may be helped by the network through development of teaching materials and light business development services. It is helpful to take stock of the experience of PROCASUR in experiential exchange visits, described in Box 2. When learning is being facilitated by an external institution, there is always the risk that the capacity to self-organise is taken away, and this requires careful balancing;

Communication products will be co-created to make them joint outputs. In communication, not only the dissemination part is important, but jointly owning a good practice or product by many parties is a powerful method for upscaling. Effective learning strategies give confidence to learners that they can take control over their own learning ways. This means integrating the knowledge of different actors, be it farmers, scientists or experts, in which scientific knowledge is not privileged over farmers' knowledge.

Box 2 The benefits and set-up of experiential exchange visits

PROCASUR came to the realisation that traditional training methods such as workshops and seminars have produced only limited results, both in generating effective local capacity and in disseminating innovations (Girardi & Herrera, 2012). This incentivised an interest in the development and testing of new learning tools to effectively trigger the scaling up of innovations, based on experience gained with the use of a learning-by-visiting approach (Pulgar & PROCASUR, 2012). This idea has further evolved by recognising the importance of local knowledge of rural inhabitants who are involved in the implementation of community-driven projects and entrepreneurial endeavours, and who are able to explain in personal and emotional terms the impact that innovations have. The Learning Routes are a planned journey with learning objectives that are designed based on the knowledge needs of development practitioners faced with particular challenges within specific rural contexts, and the identification of relevant experiences in which local actors have tackled similar challenges in innovative ways and accumulated knowledge that is useful to others. The Route builds on the recognition that successful solutions to existing challenges can be found in rural areas, which can be adapted and multiplied in other contexts. Each Learning Route is subject to a number of stages:

- *Defining specific user demand:* here, both the desired knowledge and competencies are clarified, based on what is needed to replicate good practices in other contexts;
- *Development of case studies:* Once desired experiences are determined, a process of selection of relevant cases and activities to be included in the Route begins. The owners of the case reflect upon their own practices, being an exercise that contributes to the construction of knowledge and capacity development of human resources involved. Through the preparation of training activities, the skills of the local talents are enhanced and the participation of small-scale farmers and micro-entrepreneurs encouraged;
- *Induction workshop:* this is carried out at the beginning of the Learning Route and offers an in-depth look at the approaches, concepts, tools and experiences that are linked to the issues of the Route, providing a critical reflection of the practices to be analysed by participants and identifying their needs and expectations;
- *Field work:* activities in the field include primarily visits to the selected cases. The main actors are the rural associations and facilitators of the public or private project who present their experiences, facilitate learning exercises, and exchange the lessons learned as a result of their endeavour. In addition, other local actors such as local authorities, association leaders and small entrepreneurs who collaborated in the implementation of the experience participate. The purpose is that the Learning Route user achieves a comprehensive view of the case, identifies the factors that have facilitated the process of innovation, and examines in-depth what are the results obtained;
- *Case analysis workshop:* innovative experiences are reviewed, their outstanding aspects studied and the concepts and approaches are discussed. Conclusion and recommendations are drawn to bear in mind while designing the Innovation Plan;
- *Innovation Plan development workshop:* during the route, workshops aim to facilitate the adaptation of innovative processes to the own reality of the Route participants. The Innovation Plan is a concrete product for the participating organisations that links the knowledge gained during the Route to implementation of innovative approaches in the participants' own organisation. It allows to visualise and plan the use of what participants have learned and determines a strategy for adoption;
- *Route's results dissemination:* case studies and complementary material provided during the journey, innovation plans, videos, photos and blog posts are organised in the Virtual Learning Community that allows participants, their organisations and others to access relevant information and share the advances being made in the implementation of Innovation Plans.

The Learning Route process allows for the collective, critical reflection on experiences, in an enabling environment where goals can be reformulated, strategies set and opportunities visualised, while the participants develop the skills needed to replicate experiences. The emotionally conducive atmosphere created among participants is a motivational element for learning and at times creates ties that transcend the Route. Such horizontal learning can be a driving force to help develop self-evolving organisations, where community groups go through a process of self-organisation by seeing how others are doing certain practices and even visiting them. To strengthen self-evolving organisations, it is good that they are in touch with each other and can measure their own achievement against that of peers in an atmosphere of excitement and exchange.

Farmer Research Groups

The objective of Farmer Research Groups (FRG) is to strengthen the capacity of farmers as innovators of agricultural solutions, to empower farmers and link local research and indigenous knowledge with the work of research institutions by providing farmers the access to new skills, information and research products that can be useful at the local level. By increasing knowledge and acquaintance with research, farmers should be able to influence the research agenda setting more effectively and thereby promote their interests and identify constraints in the production system. Involving stakeholders in the early stages of research is crucial as it leads to better tailored technologies; a greater sense of local ownership; securer livelihoods; reduced time between initiation, research and adoption; an increased rate and pace of adoption; and greater impact on farmers' human and social capital. The training that farmer-researchers receive familiarises them with terminology that will give their results credibility within the formal research system, but that is communicable to local people (Braun et al., 2000). The training builds skills related to planning, management, meeting facilitation, monitoring and evaluation, record-keeping and basic accounting.

FRG's have not only stimulated local experimentation for improved farm management, but contributed to increased food security, higher yields, greater biodiversity in cropping systems, launch of rural micro-enterprises and increased the status of marginalised groups as well. Local knowledge and experimentation can lead to generation of a new series of Practical Notes as well as exchange fairs, in which informal and formal knowledge are combined. The members of a farmer research group can be selected from the constituency of Water User Associations, and can rotate over time.

Table 2 Roles of farmer research groups in different phases of the research process

Phase in the process	Role of the Farmer Research Group
Problem identification	PRAs with farmer groups and extension agencies in targeted areas
Priority setting and resource allocation	Wide variety of groups within the FBL Network can play a role, including farmers, research institutions, civil society organisation and government representatives
Action plan and design	Elaboration with limited number of groups and approval by larger FBL technical committees with farmer representatives
Implementation	Representative farmer researchers on behalf of farmer research groups
M&E	FRG has an established role in activity level monitoring. However, it also is increasingly involved in resource allocation monitoring. Results to be adopted by group members.
Dissemination, up-scaling and feedback	FRGs provide services in these areas to other groups and farmers, and play representative roles as well.

Source: Heemskerk & Wennink, 2004

4. NETWORK GOALS, OBJECTIVES AND MAIN MESSAGES

The Communication Plan is designed to support the strategic goals of the FBL Network for the coming five years. To increase the effectiveness and impact of communication in these times of change, FBL Network partners need to be equipped with communication guidelines that can serve the country chapters to approach and trigger communication among different target groups. Long-term network goals and short-term objectives form the basis for the rest of the plan, in which specific main messages, target groups, and products and activities are identified.

4.1 Network goals

As the Communication Plan is strategic in focus, it is directly linked to the network goals and objectives to promote FBL and foster international dialogue in that field. The goals of the network have been divided into short, medium and long-term ones:

Long-term goals

- By 2023, a self-supporting FBL Community of Practice has emerged that is capable to develop and promote practical, actionable and upscalable FBL knowledge and skills. This is done through:
 - Systematic use of documented good practices and documentation of new good practices;
 - Placing WUAs at the centre of the Community of Practice by promoting horizontal learning and by establishing self-evolving farmer learning networks in the ten impact countries;
 - Facilitating farmer groups and researchers to engage in solution-oriented research and share evidence-based documentation of good practices;

- Familiarizing policy makers, implementing agencies, research institutions and funding agencies with experiences and practical approaches to FBL development, based on guidelines and policy documents that have been, and will be, developed by the FBLN;

Medium-term goals

- By 2020, improvement and investment packages related to e.g. better field practices and water distribution systems are identified and implemented, linked to the IFAD portfolio and other financiers. In addition, strengthened capacity building systems that combine scientific with local knowledge are in place upon which the implementation of investments, the formulation of sound policies, and the introduction of new practices can fall back;
- By 2020, the FBLN is connected through a longer-term relationship to two or more climate change adaptation and mitigation funds;

Short-term goals

- By 2018, the FBL Network has expanded its outreach to a total of at least ten impact countries, and has consolidated itself thematically and geographically in these countries, with network partners being fully capable to stimulate cooperation with WUAs and farmer communities;
- By 2018, young change makers and farmer leaders have benefited from capacity building geared towards creating good understanding of participatory approaches, adaptation in FBL, as well as practical know-how and specific leadership skills for the management of FBL;

4.2 Communication objectives

Communication objectives are very specific and aimed at increasing knowledge, influencing attitudes and changing practices. The below communication objectives are designed to support the network in achieving its goals, by means of outreach among and beyond the FBL Network:

- By 2018, awareness and understanding about the network's aims, activities and achievements has been built among target groups through an increase in the media's knowledge-based FBL issue coverage in the ten impact countries, and information has been provided that is relevant to national and international decision-making processes;
- By 2018, the improvement of existing communication channels and the establishment of new ones within the country chapters have increased the visibility of the FBL Network, built up awareness among stakeholders on the conducted activities and their achievements, supported involvement of partners in activity implementation and carried out proper information dissemination on FBL both efficiently and effectively, within country chapters as well as between country chapters in the ten impact countries as a result;
- By 2018, effective farmer's communication systems are in place that share practical ideas among themselves, across regions and countries.

4.3 Main messages

A number of key messages that explain exactly why the network exists and what it aims to achieve have been defined, and are presented in Table 3, being the key issues that the network wants their partners to know. To make impact, it is important to use these messages consistently and repeatedly in all future communication.

Table 3 Main messages of the FBL Network

Urgency
Water availability is increasingly under pressure as a result of population growth, environmental degradation and climate change. More than ever, the potential offered by seasonal floods needs to be harnessed; to strengthen agricultural livelihoods, to improve social equity and to enhance ecosystem integrity. Harnessing floods is a quintessential method to allow rural communities in vulnerable areas to adapt to climate change. For many farmer communities who depend on agriculture and fisheries, floods are not a hazard but rather an asset.
Goal
Through the FBL Network, partners in Africa, Asia and Latin America jointly aim to maximize the livelihood potential of floods by building strong farmer networks, conducting solution-oriented research, and capacity building to create a new cadre of young professionals who can promote the development of, and investment in, flood-based livelihood systems.
Approach
The network actively involves WUAs and farmer communities in improved practices and structures to harness floods and act as responsible stewards of flood waters for livelihood and ecosystem improvement. The network

aims to give farmers a platform for peer-to-peer discussion and to catalyse horizontal learning that spreads scalable and practical ideas that are relevant to WUAs and farmer groups. By providing a platform for WUAs and farmer groups to learn from peers, the Network aims to create a self-evolving farmer movement. The network also aims to decrease downstream losses by supporting sound upstream natural resource management and by creating upstream-downstream linkages.

Opportunities

The network invites partners in the agriculture and water sector to jointly address and improve flood-based livelihood systems, by improving practices related to water distribution, water rights, soil moisture retention and soil fertility, new crops and fisheries, and conflict management mechanisms, with the ultimate aim to increase the potential of floodwater for agriculture and other livelihoods.

5. TARGET GROUPS

The target groups are those individuals, groups and organisations that are most critical to the success of the network, and with whom the FBL Network can have manageable contact. It is crucial to understand what it is they can gain from the network, what expectations they have, and what their importance is for the network's goals. Target groups can be divided into primary and secondary groups, according to their relationship with the network. In the new context of aiming to become a farmer-based network, these are:

- *WUAs and farmer groups depending on flood-based livelihoods (primary group)*: being best placed to identify the local trends, challenges and needs, they can agree their own priorities and preferences and determine the skills and capacities that are lacking. Tools that the network will use for this group are the organisation of fairs where (new) good practices and Practical Notes can be exchanged and picked-up. This can go hand-in-hand with the organisation of awards for best practices, to trigger interest and enthusiasm among farmer groups;
- *Research institutions (primary group)*: collaboration with scientific institutions is one of the main ways to create impact within the network. Their role is to increase the quality of FBL research that is solution-oriented and community-based, and contribute to the dissemination of good practices by engaging at the international level. Being solution-oriented and community-based means that:
 - Topics are selected that are relevant in the eyes of WUAs and farmer groups, with their needs and challenges counting most.
 - Topics are selected that have a fair chance of coming to a do-able, practical solution. Research questions may even be selected on the likelihood that they come to something specific, practical and actionable;
 - WUAs and farmer groups who will benefit are engaged in the research itself, through Farmer Research Groups, and outcomes are made available as open access communication products.
- *Decision-makers at the country level (secondary group)*: it is critical to gain the support of key decision-makers who are directly responsible to allocate resources and develop policies, both at the national and international level, thereby creating the enabling environment for flood-based livelihoods. Through the use of knowledge-based research and clear insights about the situation of FBL communities, the FBL Network will trigger policy and action that creates an enabling environment for FBL. Part of this target group are elected representatives at the local, regional and national level, as well as technical staff of government agencies in the water and land management sector.

Concepts, technologies and skills related to FBL need to be communicated to WUAs, farmers, research institutions, and decision-makers. As each group has unique characteristics, the most effective way to communicate with each of them differs, resulting in the need for tailored messages, besides the main messages for the entire network. Writing tailored messages based on the interests and expectations of target groups ensures that the network's communication is particularly relevant to them, and that they get a sense that the network partners understand their point of view. When stimulating communication and exchange or compiling messages, it is good to consider the following interests and expectations:

6. STRATEGIC COMMUNICATION

A successful farmer network should seek to transfer lessons learned to other communities and regions, where farmers may also benefit from the research conducted as part of the network (Chapman et al., 2016). In this chapter, communication tactics, products and activities are explored, to enable the various country chapters to identify their specific 'communication basket' that fits their national context. These

tactics, products and activities need to be a logical consequence of the main messages, target groups and tailored messages that have been identified.

Communication is more than dissemination of information, but rather an active solicitation of stakeholder perspectives. Two-way communication is the lifeblood of any network, linking information dissemination and action. What counts is changes in the actual practice of a concerned group (CROP, 2014), and that requires communicators to motivate and mobilise a target group to take action and commit themselves to a new practice.

6.1 Communication channels

A next step is to define how the network will promote exchange knowledge and communicate messages to the different target groups. These are the communication channels used and products and activities that are created to bring the messages across that raise awareness, encourage participation, change attitudes or promote new behaviours. There are many different ways to spread the message, and clearly defining the communication channels will help the partners to settle the activities that the network will engage in, so that the network is not pulled in different directions. To select the right communication channels, it is useful to ask the following questions (GTZ Rioplus, 2006):

Strategic alliances are needed to get messages across. Potential partner institutions with which alliances can be built are agricultural extension and training agencies, environmental management agencies, rural development training and adult education institutions, rural development-oriented civil society organisations, and community-based development centres (GTZ Rioplus, 2006). Another suggested channel may be the use of intermediaries such as school teachers, religious leaders and village chiefs change makers and role models.

Media is a crucial player in shaping the public opinion, and that of decision-makers. Increasing the knowledge-based cover of a specific topic like FBL is not an easy task. Still, media provides a crucial communication channel for the network, in terms of communicating research-based knowledge and putting FBL issues on the agenda. In particular, the network wants to encourage the elaboration of messages based on farmer perspectives within the impact countries. Internal and external factors influencing human communication need to be considered (GTZ Rioplus, 2006). Internal factors comprise human features such as norms, values, attitudes, behaviour, emotion, beliefs, culture and social relations. Internal factors vary considerably from country to country. External factors are the carrier of the message, like printed material and online content, theatre performances, radio and television, as well as interpersonal and group communication.

6.2 Products and activities

Different groups require different communication products to be compelled. Decision-makers might be more interested in messages through a trusted policy journal, while local radio will work best to reach farmers (Eik et al., 2006). It requires careful thinking what channel to use for which target group. Also, a clear distinction needs to be made between general awareness raising communication products and activities, and those tailored to a specific (community-based or technical) audience (UNEP, 2012). Every media is good for something, but no medium is good for everything and hence, a balanced media mix is a crucial success factor. The FBLN country chapters can apply a combination of the following:

Table 4 Communication products and activities

Guidelines, policy briefs, articles and fact sheets	Guidelines related to FBL are developed to function as a cornerstone for FBL professionals at the international level. Besides, the research institutions that are FBLN members can create easily digestible synopses of farmer and university research results into fact sheets and articles, and compare cases to pose policy recommendations.
FBLN website, newsletters and blogs	Quarterly newsletters will be sent to members and partners of the FBL Network. In addition, updates can be send around during special occasions to mark significant developments within the Network, or by following the life-cycle of specific projects. Resources need to be dedicated to collecting background information on traditional practices and activities. In agreement with the farmers, their stories and traditions on agricultural issues can be recorded and shared in blogs to increase the visibility of the FBL Network. New publications, pictures and blogs can be shared on TheWaterChannel as well. Country chapters are encouraged to share success stories of the FBLN on TheWaterBlog (thewaterchannel.tv/thewaterblog).
Social networks and photo voicing	Online social networks are web-based communities where members can socialise with friends or professional colleagues. The FBLN uses WhatsApp (coordinated and moderated by each country chapter), Facebook (facebook.com/spate.irrigation), Twitter (#SpateIrrigation) and Instagram (instagram.com/thewaterchannel) that can be used to exchange and follow certain persons.

	<p>Through these tools it is possible to spread awareness about the network's activities among WUAs, farmer groups and other interested persons. Members can post questions and responses to ongoing discussions.</p> <p>Photo-voicing is a tool that can be combined with the use of social networks. It captures people's plural perspectives on their current and future situations. It involves providing people, in this case WUA representatives and farmers, with basic orientation as photographers (and co-researchers) to take pictures of their farming and natural resource management practices, using basic devices such as their own phones, and motivating them to do so on a regular basis. This helps to develop a steady stream of visual data (with small captions), promoting community dialogue and horizontal learning, by confronting and mirroring experiences from different communities who normally do not exchange much. Photo-voicing increases the participation of WUAs and farmers by stimulating action and reflection, which are both required for social change. A good example explaining how photo-voicing can be applied is www.youtube.com/watch?v=x03xC3I8B78.</p>
Video documentation	<p>Videos on FBL stimulate learning and discussion related to new ideas (e.g. efficient irrigation systems, seed varieties, upper-catchment reforestation). Learning methods need to stand close to the direct experiences of those who are learning. This requires developing materials in the local language, and using applied techniques such as video. Locally-grounded practices can be captured through video-mediated rural learning, with experienced farmers showing and explaining innovations in front of the camera (also see: www.digitalgreen.org and the videos of Shamba Shape Up on www.youtube.com). There is much potential for out-scaling to other local farmer networks, particularly when video is combined with face-to-face contact in Farmer Learning Centres. Video-mediated learning not only triggers farmers' ability to use innovations or experiment, but it also strengthens capacity to share new knowledge and skills with others in the community, thereby contributing to the building of human and social capital.</p> <p>TheWaterChannel (www.thewaterchannel.tv) is a public facility featuring over 1.800 open-source videos that can be used for training sessions and awareness creation. In addition, it creates a place to share information and to keep informed. It has evolved into a platform providing a broader set of activities including the triggering of discussion and debate, and video documenting of forgotten practices.</p>
Seminars, workshops and conference sessions	<p>To reach decision-makers at the national and international level, it is useful to organise policy and investment dialogues with government agencies and funding partners in each country, including field visits to Farmer Learning Centres, areas with successful FBL practices, and direct discussions between decision-makers from WUAs, government and funding agencies. Such dialogues can be organised on the basis of a theme that requires more attention. Besides, various conferences are selected where the FBL story can be told to a high-level audience, with the aim to identify strategic alliances that can further build the network's strength. This can go hand in hand with the screening of farmer videos from different flood-prone areas in Africa and Asia at events of the international agriculture and water community.</p>
Posters, roll-ups and brochures	<p>Various posters and roll-ups have been created to show the key successes of projects that are implemented within the FBL Network. Posters get a large amount of attention for a relatively low investment. They are easy to develop, which makes it also easy to keep them up-to-date. During conferences or seminars, posters can be used as information source or as a conversation starter.</p> <p>Besides printed material, a small pico projector can also be used to show presentations or videos during conferences, seminars and trainings. This is a small and light tool that allows the showing of videos without additional wires. It comes in handy when power cuts are frequently happening, and as the tool is so simple and small, it takes much less time and effort to use compared to the conventional beamer.</p>
Webinars	<p>Whenever a partner releases a major study, a webinar can be hosted for network partners and other interested parties to provide a low-key dissemination platform. These webinars are an online, live broadcasted seminar, which allows the participants to interact with the speaker. They can be announced and disseminated through TheWaterChannel. Over 30 webinars on a variety of topics can be found on: http://thewaterchannel.tv/webinars</p>
Learning Routes	<p>Field visits, based on the example of PROCASUR, can be conducted for farmers between different areas of each impact country to demonstrate new agricultural or irrigation innovations. Events can be made interactive by inviting local speakers and asking the audience to comment.</p>
Competitions and general awareness	<p>An award can be handed over to the best FBL initiatives, stories and photos. Small grants can be provided for best practices to increase awareness. Such special events can be linked to sports matches, market occasions or religious celebrations. When done well, much excitement and publicity is generated by organising innovation awards, which can trigger considerable horizontal learning. At fairs, many groups are given the chance to present themselves and many are there to witness, discuss, probe and learn. A broad exchange facilitates plenty of learning opportunities, but who picks up what is unstructured. Such events thrive on the interaction between people, and all the fun and excitement of people meeting each other. Opportunities, ideas and innovations that excite people can be emphasised, while showing the role they can play. Real change emerges when actors 'change their minds' through critical thinking, interactions and dialogue with others. Creative and cultural skills can be used to share, among which songs, poetry and traditional theatre are particularly powerful. Local radio and television can be used to promote particular events (e.g. when launching a new initiative) to increase general awareness.</p>

7. PRE-TEST, IMPLEMENT, MONITOR AND EVALUATION

To know the effectiveness of messages and materials on particular target groups it is important to pre-test them with a segment of a group. This will help to assess whether the message really works the way it was intended, to prevent mistakes before it is too late. Assisted by such feedback, it is possible to review and change messages, communication tools and timing to be more effective. Pre-testing is only useful when the sample group is being asked the right questions, which are linked to the communication objectives. For example, does the target group:

- Understand the message?
- Find other meanings in the message?
- Prefer words or pictures?
- Get motivated by the message?
- Have easy access to the product or activity?
- Find the product or activity appealing?
- Differ among themselves in terms of reaction (e.g. according to gender, age)?
- Remember the message later?
- Trust the messenger?
- Have a greater understanding of the issue or solution after seeing the message?

The Plan comprises the responsibility to mobilise and facilitate action that, ultimately, would lead to improved FBFS practices, which is the impact. Monitoring is a key part of the Communication Plan and needs to happen on a frequent basis to find out whether products and activities are actually achieving what they were originally set out to achieve. To assess this, it is crucial to go back to the communication goals, and to establish a baseline (social media community size, website traffic volume, total funding partners, total members, etc.), which can then be assessed on changes after 6 or 12 months. A review meeting can be scheduled every half year to sit down with staff and examine what is working and what is not. It is important to remain flexible, as no communication plan is ever final nor does it need to be followed at all costs.

The use of a combination of mass, group and interpersonal communication is considered most cost-effective, with a variety of communication channels and media complementing and reinforcing each other. Each one has a particular advantage that is useful to accomplish a specific purpose. Once the communication basket has been identified, it is useful to make a communication calendar (SPARC, 2006). To ensure it will all happen, it is key for partners to know what they will be contributing and for what products and activities they are responsible (CROP, 2014). These preferably are people who are experienced to create a certain product or execute a particular activity.

LITERATURE

- Braun, A., G. Thiele & M. Fernández (2000) *Farmer Field Schools and Local Agricultural Research Committees: Complementary Platforms for Integrated Decision-Making in Sustainable Agriculture*. ODI Agricultural Research & Extension Network. Network Paper No. 105.
- Brown, K.C. (2015) *Peer Learning Communities*. Presentation for NJ Early Learning Academy.
- Bruns, B. (1992) *Just Enough Organization: Water Users Associations and Episodic Mobilization*. *Irigasi Indonesia* 6:33-41
- Chapman, K., P. Kyveryga, T. Morris & T. Menke (2016) *Farmer Network Design Manual; A Guide for Practitioners, Advisors and Research Partners*. Environmental Defence Fund;
- Chowdhury, A.H., P. van Mele & M. Hauser (2011) *Contribution of Farmer-to-Farmer Video to Capital Assets Building: Evidence from Bangladesh*. *Journal of Sustainable Agriculture*, 35:408-435;
- Comparative Research Programme on Poverty [CROP] (2014) *Communication Plan 2015-2020*. International Social Science Council and University of Bergen;
- Cummings, S. & A. van Zee (2005) *Communities of practice and networks: reviewing two perspectives on social learning*. *KM4D Journal* 1(1): 8-22.
- Eik, K., P. Csagoly & S. Menzies (2006) *Communicating for Results; A Communications Planning Guide for International Waters Projects*. GEF and UNDP;
- Food and Agriculture Organisation of the United Nations [FAO] (2016) *Farmer Field School*. Sustainable Land Management. Available on the world wide web: <http://www.fao.org/nr/land/sustainable-land-management/farmer-field-school/en/>
- Girardi, M. & S. Herrera (2012) *The Learning Routes as Tools to Scale-Up and Disseminate Innovations*. IDRC, Programa para el escalamiento de innovaciones rurales, IFAD & PROCASUR.

- GTZ Rioplus (2006) *Strategic Communication for Sustainable Development; A Conceptual Overview*. Reutlingen: Schneller;
- Hamdy, A. & C. Lacirignola (1997) *Water Users' Associations and Sustainability of Irrigation Systems*. Medit No. 3/97.
- Heemskerk, W. & B. Wennink (2004) *Building Social Capital for Agricultural Innovation; Experiences with farmer groups in Sub-Saharan Africa*. Development Policy and Practice. Bulletin 368. Amsterdam: Royal Tropical Institute.
- Matthewson, M., M. Fery and M. Powell (2013) *Creating Farmer Networks; A Toolkit for Promoting Vibrant Farm Communities*. Oregon State University: A Pacific Northwest Extension Publication.
- PROCASUR & D. Pulgar (2012) *Scaling Up "Learning Routes", as a Knowledge Management and Capacity Building Tool*. PROCASUR & IFAD.
- Schneider, F., P. Fry, T. Ledermann & S. Rist (2009) *Social Learning Processes in Swiss Soil Protection – The 'From Farmer – To Farmer' Project*. Hum Ecol. DOI 10.1007/s10745-009-9262-1.
- SPARC (2006) *Creating a Stakeholder Communications Plan*. Sport & Recreation New Zealand;
- UNDP (2010) *Communications and Visibility Strategy; September 2010 – September 2012*. Promoting Integrated Water Resources Management and Fostering Trans-Boundary Dialogue in Central Asia. EU-UNDP Project 2009-2012;
- UNEP (2012) *Communication Strategy*. Global Mercury Partnership Advisory Group. Fourth Meeting; 27-28 September 2012.

ANNEX 1 TAILORED COMMUNICATION BASKET FOR EACH COUNTRY CHAPTER

Based on this Network Development and Communication Plan as well as the Business Model Canvas, every country chapter is encouraged to make a country-specific communication basket (using *table 5*) in which each of the target groups is considered. Country chapters should make specific how they are going to use selected communication products and activities (see *table 4*) to strengthen their country chapter, what the frequency will be with which these products and activities are used, and who is the product owner. The elaboration and implementation of this communication basket will be done together with the FBLN Foundation.

Table 5 Tailored communication basket for each target group

Target group	Communication basket	Frequency	Product owner
WUAs and farmer groups depending on FBL	▪ ▪		
Scientific institutions	▪ ▪		
Decision-makers at national and international level	▪ ▪		
Funding partners and cooperation agencies	▪ ▪		

AFRICA TO ASIA AND BACK: TESTING ADAPTATION IN FLOOD-BASED RESOURCE MANAGEMENT

Internship Programme of the Foundation

Nurturing young talent to become future leaders
in Flood-Based Livelihood Systems



Funded by:





INTRODUCTION

This is the overall goal of the “Africa to Asia and Back: Testing Adaptation in Flood-Based Resource Management” programme: to contribute to food and nutrition security and build the resilience of local communities through the support of flood-based livelihood systems (FBLS). The purpose is to develop FBLS policies and programmes to invest in rural people, based on research and documentation of practical experiences, imbedded in long term capacity building and programme development at various levels.

Specific objectives are: 1) establishing a strengthened knowledge network within and across the target and other selected countries in Africa and Asia; 2) strengthening human resources, local institutions and FBLS knowledge in the field of water use efficiency, food and nutrition security and conflict resolution; 3) delivering capacity building within farmer learning centres and higher education institutions and contributing to the development of a group of young male and female professionals; and 4) developing investment programmes and policies that are informed and shaped by FBLS good practices, supported by evidence-generating research and South-South shared documentation.

Internship programme

The long-term goal of Flood Based Livelihoods Network Foundation is to be the centre of excellence and innovation in effective engagement of farmers and young talent to harness and manage floods for climate resilient rural growth, better livelihood and healthy ecosystems in Arid and Semi-Arid Lands (ASALs). Here it is crucial to build a new cadre of young professionals. The internship programme hence aims to prepare young talent into visionary future leaders in flood-based livelihoods. This shows a strong drive for innovation as well as high motivation to work with farmers as change makers with the vision of lifting numerous farming communities in ASALs out of poverty.

Overall arrangement

Within this IP, interns work with the Flood-Based Livelihoods Network (FBLN) partner in their respective country to assist in the implementation of the FBLS programme. The Internship Programme will also coincide with the organising of the FBLS Leadership Course, which will also take place in the Netherlands. The interns will be from Afghanistan, Ethiopia, Kenya, Malawi, Myanmar, Pakistan, Sudan, Yemen and possibly from Bangladesh and Somaliland. The overall programme is roughly divided in three periods:

1. Six weeks working in the country chapter / national host organisation on a number of specific assignments;
2. Training period in the Netherlands for eight weeks in the Netherlands. The interns will be working with staff at the MetaMeta office. Together they will attend workshops to gain knowledge on a large variety of topics, they will strengthen their life skills, and work on assignments that assist in the consolidation of their respective FBLN country chapters;
3. Eight months working in the country chapter / national host organisation on the different programmes. If possible, we will arrange an exchange visit of the intern to another Flood Based Livelihoods country programme. After this we of course hope that the interns will continue to work within the FBLS programmes.

PROGRAMME FIRST PERIOD

The first period will be within the country chapter and will last six weeks. The aim is for the intern to get acquainted and to start to work with the country team, to help with ongoing activities and to prepare to provide a strong support role in the various programmes (as will be further strengthened and developed in the Second Period). The activities will include:

- Introduction to the programme team;
- Study and discuss the Canvas Model (for existing countries and starting for new countries),
- Gather input for promotional material of the country chapter;
- Work on new Practical Note topics, by gathering new data on the following topics:
 - Groundwater development and recharge;
 - Solving water conflicts;
 - Farmer-managed natural regeneration;
- Gather input and case study material to elaborate the FBLS Guidelines;
- Start drafting a Personal Development Plan;

During this first period of six weeks, it will be important for the interns to get to know the country organisation, to understand different country-specific FBLS practices and get a good feeling with how farmer networks work in their country. In order to do so, interns are strongly encouraged to spend a few weeks in the field, doing research in the FBL areas of the country. In the Netherlands, the gathered information is used to develop joint products (promotional material, Practical Notes, and input to FBLS Guidelines) and create tools to promote farmer engagement and exchange. Interns will be coached in this by country teams and international coordination.

PROGRAMME SECOND PERIOD

The following outlines the programme for the Second Period in the Netherlands. The main aim is to:

- Develop the personal skills and practical knowledge of interns;
- Bring them up to speed on FBLS;
- Collaborate on joint outputs;
- Plan and prepare them for their role in FBLS programmes.

In general, each week is dedicated to a particular element of the programme. Personal skill development will however run through the entire period. In addition, week two and three of the Internship Programme will coincide with the Leadership Course.

April 8 th and 9 th	<i>Saturday and Sunday</i>	<ul style="list-style-type: none"> • Arrival of participants and transfer to Wageningen • Games, building the team spirit, and getting to know the area
Week 1 (April 10 th to 14 th) Introduction and visioning	<i>Monday AM</i> <i>Monday PM</i> <i>Tuesday AM</i> <i>Tuesday PM</i> <i>Wednesday</i> <i>Thursday AM</i> <i>Thursday PM</i> <i>Friday AM</i> <i>Friday PM</i> <i>Weekend</i>	<ul style="list-style-type: none"> • Introduction to the training team + programme – Frank, Daniel • Introduction to coaching and intervision, how to become a convener, and Personal Development Plan – Letty • Managing time as a tool – Letty • Future vision of the FBLN network, including canvas models – Frank, Daniel, Abraham Mehari • Interns work on presentations for FBLN country chapters; • Interns present their FBLN country chapters + feedback from team and each other – Frank, Abraham Mehari, Letty, Daniel • Master Class on Water Productivity – Lenneke • Interns work on Personal Development Plan – Letty, Daniel • Master Class on smart water, WaterPads and salinity – Simon • Interns work on Personal Development Plan – Letty, Daniel • Work on Personal Development Plan
Week 2 (April 17 th to 21 st) Leadership Course on Flood-Based Livelihoods & Rainwater Harvesting	<i>Monday</i> <i>Tuesday</i> <i>Wednesday</i> <i>Thursday</i> <i>Friday</i> <i>Weekend</i>	<ul style="list-style-type: none"> • General opening and introduction • Overview of the multiple uses of floods: flood-based livelihood and rainwater harvesting systems • Technical design of FBLS and rainwater harvesting structures • Water governance and institutional issues in floodplains + water rights and distribution rules • Excursion to Dutch Water Boards (Room for the Rivers project) • Discussion and reflection on Room for the Rivers project • Presentations from participant experiences • Excursion to Amsterdam
Week 3 (April 24 th to 28 th) Leadership Course and FBLS guidelines	<i>Monday</i> <i>Tuesday</i> <i>Wednesday</i> <i>Thursday</i> <i>Friday AM</i>	<ul style="list-style-type: none"> • Roads for Water, and innovations in the conjunctive use of flood and groundwater • Agronomy, soil moisture management and microclimates • Personal skills development (team work) and leadership qualities • Free day: Kingsday celebration in Utrecht! • Introduction to Guidelines + identifying hot topics and relevant issues from the leadership course – Loes, Frank, Abraham Mehari

	Friday PM	<ul style="list-style-type: none"> Creating PowerPoint outline related to Guidelines and fieldwork – Lenneke, Abraham Abhishek
	Weekend	<ul style="list-style-type: none"> Individual work on the guidelines
Week 4 (May 1st to 5th) Communication tools and skills	Monday AM	<ul style="list-style-type: none"> Importance of communication: communication as attitude, tool and skills + power writing – Frank
	Monday PM	<ul style="list-style-type: none"> Training on the power of infographics and how to make them – Abraham Abhishek
	Tuesday	<ul style="list-style-type: none"> Creating a Camtasia production and whiteboard video for the FBLN country chapters – Abraham Abhishek, Lenneke
	Wednesday AM	<ul style="list-style-type: none"> FBLN style and communication package – Linda, Daniel, Loes
	Wednesday PM	<ul style="list-style-type: none"> Blog writing + introduction to FBLN newsletter for practical application – Lenneke, Abraham Abhishek, Linda
	Thursday AM	<ul style="list-style-type: none"> Creating brochures with infographics on canvas model, and peer-review each other's blogs – Lenneke
	Thursday PM	<ul style="list-style-type: none"> Working with BSc and MSc programmes (planning) – Daniel
	Friday	<ul style="list-style-type: none"> Free day: Liberation day celebration in Wageningen
	Weekend	<ul style="list-style-type: none"> Work on brochures and blogs Excursion to De Biesbosch Nature Reserve
Week 5 (May 8th to 12th) Interpersonal Skills	Monday	<ul style="list-style-type: none"> Strengthen interpersonal skills – Letty <ul style="list-style-type: none"> Reflecting on our norms and values Convening and leadership skills Motivation and communication Cooperation and conflict resolution
	Tuesday AM	<ul style="list-style-type: none"> Interpersonal and intercultural communication – Letty
	Tuesday PM	<ul style="list-style-type: none"> Further refine, discuss and finalize Personal Development Plans – Letty, Daniel
	Wednesday	<ul style="list-style-type: none"> Excursion to the Texel Salt Farm – Letty, Daniel
	Thursday	<ul style="list-style-type: none"> Voluntary work in Wageningen – Letty, Daniel
	Friday AM	<ul style="list-style-type: none"> Hot topics and dilemmas related to FBLN + group assignment – Mara
	Friday PM	<ul style="list-style-type: none"> Developing outline and methodology for Joint Practical Notes – Daniel, Loes <ul style="list-style-type: none"> Groundwater management Farmer-managed natural regeneration
	Weekend	<ul style="list-style-type: none"> Work on guidelines and practical notes
Week 6 (May 15th to 19th) Research and Action: FBLN Themes, Topics and Programmes	Monday AM	<ul style="list-style-type: none"> Solution-oriented research: how to do it! – Abraham, Cecilia
	Monday PM	<ul style="list-style-type: none"> Conducting fieldwork + collect, organise and analyse data – Mara
		<ul style="list-style-type: none"> Making use of new research techniques and analytical work – Frank, Letty <ul style="list-style-type: none"> Well-being method Focus group discussion Data cracker
	Tuesday AM	<ul style="list-style-type: none"> Values and attitudes in research and action – Frank, Letty
	Tuesday PM	<ul style="list-style-type: none"> Water integrity - Jasmina
	Wednesday AM	<ul style="list-style-type: none"> Inclusiveness: gender and people with disabilities – Letty, Jasmina Indigenous people and FBLN – Letty, Daniel Improving water efficiency in spate systems – Abraham Mehari, Frank

	<i>Wednesday PM</i> <i>Thursday AM</i> <i>Thursday PM</i> <i>Friday AM</i> <i>Friday PM</i> <i>Weekend</i>	<ul style="list-style-type: none"> • Conflict resolution and rearranging water distribution systems – Mara, Frank • Promoting tools and rural equipment – Simon • Smart centres – Jasmina • Managing the micro-climate, regreening and managed regeneration in spate irrigation – Daniel • Retention, Recharge, Reuse – Francesco • Soil fertility management and agro-ecology – Ruben • Ecological Venture Project Development – Francesco Simon Daniel • Planning future research and development work – Daniel • Excursion to National Park De Hoge Veluwe
Week 7 (May 22nd to 26th) Policy Frameworks and Programme Development	<i>Monday</i> <i>Tuesday AM</i> <i>Tuesday PM</i> <i>Wednesday</i> <i>Thursday AM</i> <i>Thursday PM</i> <i>Friday AM</i> <i>Friday PM</i> <i>Weekend</i>	<ul style="list-style-type: none"> • Introduction to the DGIS policy framework and IFAD strategies – Malu, DGIS • Strengthening and organising farmer networks – Karim, Frank • Horizontal learning – Abraham Abhishek, Frank • Farmer learning centres – guest lecture Procasur • Using communication skills to support farmer networks – Lenneke, Letty • Canvas business model and working in pairs on country-specific canvas improvement and presentation – Daniel, Frank • Planning the work for farmer network development and engagement - Daniel • Programme management: MetaFrame – Frank • How to write successful proposals that link FBLN challenges to opportunities – Frank • Budget preparation training, using excel – Simon • Proposal writing and budget preparation exercise – Simon • Continued work on Guidelines, joint practical notes and translating existing practical notes into other languages
Week 8 (May 29th to June 2nd) Wrap-up	<i>Monday</i> <i>Tuesday & Wednesday</i> <i>Thursday</i> <i>Friday</i>	<ul style="list-style-type: none"> • Get collective voice out – Frank • Time to complete the individual and group assignments, which coaching from the training team – Frank, Abraham Mehari, Daniel • Presenting the plans, presentations and whiteboard video on FBLN country chapters' business model canvases – Frank, Daniel • The way forward, both professionally and personally + long-distance coaching – Letty

PROGRAMME THIRD PERIOD

Upon return in the country of origin, interns will be integrated in the FBLN country chapter team for at least another eight months, and assist the chapter in the conduct of fieldwork, research, and the strengthening of horizontal learning among farmer organisations. Interns will stay in close contact with their peers in other countries, as well as with the MetaMeta team, to elaborate and co-produce the FBLN guidelines as well as joint Practical Notes. If circumstances allow, the interns will be able to go on an exchange to another FBLN country chapter towards the end of their internship, to share experiences and learn from a different context.