



CGIAR Challenge Program on
WATER & FOOD

Andes • Ganges • Limpopo • Mekong • Nile • Volta



Strengthening CPWF project evaluations

Review of the CPWF small grants initiative

Jonathan Woolley

About the CPWF Impact Assessment Series (IAS)

The Impact Assessment Series (IAS) provides an outlet for the publication of articles on all aspects of monitoring, evaluation and impact assessment in the CPWF. The audiences for the Impact Assessment Series include CPWF donors who wish to see peer-reviewed impact assessments; CPWF staff who wish to learn from previous experience; and people working for other research for development programs who wish to learn from the CPWF's approaches, both from what is working and what is not.

Articles can be on the following topics:

- Designing and setting up M&E systems in CPWF basins
- Ex-ante impact assessment of CPWF projects and BDC programs-of-work
- Early evaluation of outcomes
- Lesson-learning and guidance to CPWF evaluation strategy
- Ex-post impact assessment of Phase I projects

Strengthening CPWF project evaluations

Review of the CPWF small grants initiative

Jonathan Woolley



CGIAR Challenge Program on
WATER & FOOD

Andes • Ganges • Limpopo • Mekong • Nile • Volta

Working Paper - Impact Assessment Series (WP-IAS) 09

© 2011, Challenge Program for Water and Food
All rights reserved

Strengthening CPWF project evaluations. Review of the CPWF small grants initiative.
Woolley J. 2011.

CGIAR Challenge Program on Water and Food
P.O. Box 2075
127 Sunil Mawatha,
Pelawatta, Battaramulla,
Sri Lanka

T +94 11 288 0143
F +94 11 278 4083
E cpwfsecretariat@cgiar.org

Learn more about CPWF at: www.waterandfood.org

Any views expressed in this publication are those of the author. They do not necessarily represent the views of CPWF, the author's institution or the financial sponsors of this publication.

Author

Jonathan Woolley CPWF Director 2003-2009

Editing by Kingsley Kurukulasuriya
Design and layout by Thomas Meadley

Table of contents

Acronyms	v	
Executive summary	1	
Introduction	2	
- History of small grants	2	
- Call for proposals and selection	2	
- Purpose and structure of this Paper	2	
Brief description of each small grant: Africa	4	
- Nile Basin	4	
- Volta Basin	6	
- Limpopo Basin	7	
Brief description of each small grant: Asia	8	
- Mekong Basin	8	
- Ganges Basin	11	
Brief description of each small grant: Latin America	14	
- Andean system of basins	14	
Outcomes	17	
1. Water and food technology for end users	17	
2. Better understanding of adoption	17	
3. Stimulating better research by NGOs	17	
4. Contribution to policy	18	
5. Linking researchers better with development experiences	18	
Comments from reviewers of the proposals	19	
Discussion, with reference to the future	20	
Future Lessons	20	
Table 1	Summary evaluation of CPWF small grant projects	22
Table 2	Documented outputs from CPWF small grant projects	24
Annex 1	Details of the Selection Process	26

Acronyms

CBO	Community Based Organization
CGIAR	Consultative Group on International Agriculture Research
CPWF	Challenge Program on Water and Food
FDP	Fertilizer Deep Placement
IDE	International Development Enterprises
IFWF	International Forum on Water and Food
IWMI	International Water Management Institute
M&E	Monitoring and evaluation
MSC	Most Significant Change
NARES	National Agricultural Research and Extension System
NGO	Nongovernmental Organization
NPK	Nitrogen, Phosphorous, Potassium
PEA	Private Extension Agent
SG	Small Grant
SIWI	Stockholm International Water Institute
SRI	System of Rice Intensification
WMSI	Water and Moisture System Innovations

Executive summary

This working paper reviews the experiences of the Challenge Program on Water and Food (CPWF) with 14 “small grants for impact” that were contracted in early 2006 and operated for periods of 12 to 18 months. For a total investment of under US\$1 million – less than the equivalent of a typical 3-5 year CPWF research for development project in Phase 1, the small grant projects made significant contributions to identifying water and food technology for specific end users (thus showing the potential of CPWF research in general); to better understanding of adoption; to stimulating research by nongovernmental organizations (NGOs) and to better connecting CPWF researchers in general to the reality of the development process. Four of the small grants were outstanding in their contribution across all four of these criteria; six others made significant contributions to one or more, representing a high success rate for the original investment. The quality of many of the 126 eligible proposals received was sufficient to have identified at least 20 more projects suitable for immediate funding at that time in late 2005. Unfortunately, other demands on CPWF funding and priorities on research set by the Consortium Steering Committee made it impossible to support these. This review concludes that calls for small grant proposals are an effective way of obtaining local impact and of connecting a wide range of relevant institutions to the efforts of a network such as CPWF.

Key Words: small grants; review; water and food technology; understanding adoption; NGO research; research-development linkage.

Introduction

The history of small grants

The CPWF commenced with a major investment “the first competitive call” that led to contracting of over 30 large research-for-development projects starting in June 2004. As these projects commenced, CPWF management became aware of three needs that could be answered by a relatively modest investment in locally focused small projects that concentrated on achieving adoption by small farmers of improvements in the way “water and food” were handled. These were:

- The need to have immediate examples of the impact that could be achieved by working on better water productivity for smallholders – rather than waiting several years for the first results of the major, large research projects.
- A stronger involvement of national NGOs in the CPWF, including the opportunity to make those in large-project research more aware of the reality on the ground by meeting people involved in development.
- A better understanding of how adoption of “water and food” improvements occurs.

Call for proposals and selection

The details of the call were prepared by the CPWF management team and approved by the Consortium Steering Committee. The rules of the call required a brief full proposal that showed the potential impact of water and food technologies on end users (i.e., usually farmers and farm communities). Each proposal had to include at least one institution with 5 years’ local

field experience and at least one NGO or Community Based Organization (CBO); the project had to be led by them or by an institution that was part of a National Agricultural Research and Extension System (NARES). To ensure they participated in promotion of the call, and guidance of the projects, CPWF basin coordination organizations were not eligible to participate.

The call was published on the CPWF webpage on 3 August and closed on 15 October 2005. It was widely picked up by other research for development organizations and NGO communities. Of the 208 submissions received 126 were eligible for review. From these, 14 high-quality projects (value US\$39,900 to 75,000) covering seven of the benchmark basins were approved for funding including three each from the Nile, Mekong and Ganges basins, two from the Andean system of basins, and one each from the Volta, Karkheh and Limpopo basins.

More details of the selection process are given in Annex 1.

Purpose and structure of this Paper

This paper is intended to analyze whether investments in small grants for impact were productive. Through examining the lessons learnt, the paper considers how to improve innovation and downstream impact in the future. In the particular case of the CPWF, it considers how far “downstream” (in development terms) CPWF should go as a research program and therefore, how best to work with national NGOs and CBOs.

First, the paper individually presents the results of the 12 projects that successfully completed and reported fully, looking at each for the most important result (“headline result”) as well as for contributions in terms of locally adoptable technology, understanding of adoption (or innovations in seeking adoption), research outputs and contributions to policy ideas. It then considers across the portfolio of small grants the progress made in each of these areas, as well as how the small grant participants influenced the broader CPWF community.

Two of the selected projects have failed to provide final reports, and are still being followed up by the CPWF Secretariat: SG 511 (Community-based water management strategies in the Karkheh Basin) and SG 509 (Sustainable water management for food security in smallholder farming communities of Tigray, Ethiopia). They are not included further in this review.¹

¹ In May 2010, after the conclusion of this review, the CPWF received a final report from SG 511 (available from the Secretariat) that describes initial success in establishing, institutionally and at field level, a participatory plant breeding approach in two areas of Kermanshah Province, Iran.



Drip irrigation system with concrete header tank and plastic mulch on vegetable beds

Source: IDE Cambodia

Brief Description of Each Small Grant: *Africa - Nile Basin*

SG 503 - Conditions for sustainable adoption of water and moisture system innovations: Case of the Makanya watershed in Tanzania	
“Headline” result: Participatory processes and knowledge-sharing are important for the adoption of innovations that may have been available for many years; the local policy environment is also very important.	
Locations:	<ul style="list-style-type: none"> • Five communities of the Makanya watershed, Same District, northern Tanzania.
Technology being adopted:	<ul style="list-style-type: none"> • Farmers were found to be using a wide range of water and moisture system innovations (WMSI), including various forms of local or more extensive contouring, ponds, conservation tillage and mulching and agroforestry. However, most farmers only used one or two of these. A number of examples, identified by villages were promoted further by the researchers as part of the project. Bench terraces, for example, were prepared by 189 households in Malindi Village to permit the cultivation of bananas and vegetables. Locally, it is estimated that the work has the potential to help at least 10,000 households.
Innovations in, and analysis of, adoption:	<ul style="list-style-type: none"> • A full report gives a detailed numerical analysis of conditions for adoption, including a separate analysis for male and female farmers and village heads, although unfortunately without quotes from specific farmers. A good, brief literature review of adoption models and influences is also provided.
Research outputs:	<ul style="list-style-type: none"> • This very productive project provided a good review paper on water and moisture system interventions in Africa as well as other working papers, proceedings of meetings, trip reports and a paper submitted to the African Journal of Agricultural Research. The three working papers mentioned (on adoption in Same, on the literature review of adoption, and on moisture system interventions in Africa) merit publication as CPWF working papers.
The reviewer’s comment:	<ul style="list-style-type: none"> • A huge amount of work was done with the limited small grant; the work would benefit from drawing out stories of individual farmers and communities, how they are applying moisture-conserving technologies and what the impact on their livelihoods has been.



Source: CPWF Small Grants Project 503

Ms. Rachel Machuve of Malindi village, Tanzania, in her terraced farming system

Brief Description of Each Small Grant: *Africa - Nile Basin*

<p>SG513 - Teaching rural women water-harvesting and conservation to increase food security and combat climate change in southern Uganda</p>	
<p>“Headline” result: Organic farming and capture of roof-water made 90 households food secure and provided dry-season income.</p>	
<p>Locations:</p>	<ul style="list-style-type: none"> • 90 households of Masaka and Rakai districts in southern Uganda as part of a new initiative in the much broader work of the lead organization.
<p>Technology being adopted:</p>	<ul style="list-style-type: none"> • Technical orientation on organic composting, contour cultivation, establishment of group nurseries for seedlings and harvesting of roof runoff in polythene-lined pits. Each pit of approximately 3 x 3 x 2 m is sufficient to water approximately 0.2 ha of dry-season vegetables. Methods have already been adopted by a further 50 households, for a total of 140. Already, 43 households have received certification as organic producers..
<p>Innovations in, and analysis of, adoption:</p>	<ul style="list-style-type: none"> • The project has attracted major attention by skillfully obtaining the visit of the Ugandan head of state who wrote in the visitors’ book: “Thank you for overcoming poverty and ignorance.” At the time of the final report, 72 groups of local authority leaders and many groups of community leaders had also visited the project sites. The project is based on the great dynamism of the leader (Ms. Josephine Kizza) and over 10 years’ experience of the “St Jude” organization. The completion report gives a very clear account of the adoption story.
<p>Research outputs:</p>	<ul style="list-style-type: none"> • The project was intensely practical in nature, oriented to development results for households. Despite this, research innovations resulted, including technical innovations such as using polythene sheet instead of tarpaulin (subject to rodent damage) and observing how providing water for dryland farming in the dry season saved the formerly-used wetlands from loss through siltation.
<p>The reviewer’s comment:</p>	<ul style="list-style-type: none"> • A project of great impact and national visibility led by an outstanding communicator and her team. The reporting is straightforward and unassuming. More individual stories, and an estimate of the potential across the whole of Uganda, might be drawn out by an outside reporter.



Source: St. Jude

Water harvesting

Brief Description of Each Small Grant: *Africa - Volta Basin*

SG 506 - Improving catchment and use efficiency of water for high-value dry-season crops	
“Headline” result: Permanent concrete-lined wells allow water collection for dry-season crops with one-off labor investment without damage to seasonal wetlands caused by traditional “dug-outs” that are constructed each season.	
Locations:	<ul style="list-style-type: none"> • Three villages in the Upper East Region of Ghana.
Technology being adopted:	<ul style="list-style-type: none"> • There are two linked initiatives. First, deep wells (depth 7-10 m, diameter 1 m) are hand dug by local farm families and are then lined with concrete by local artisans, according to a relatively low-cost model. These are used to replace shallow “dug-outs” in the wetlands that had to be prepared by hand at the end of each wet season and that furthermore encroached on some of the high-quality land needed for dry-season cultivation. Three wells would be needed to irrigate 4,000 m² of tomato cultivation. • Second, harvesting of rainwater from roofs into five lined tanks per household (total capacity 20 m³) combined with drip irrigation allows household use in the dry season and maintenance of planting material of sweet potato through the dry season.
Innovations in, and analysis of, adoption:	<ul style="list-style-type: none"> • The project did not analyze the adoptability and cost benefit of the technologies. In the opinion of this review, the initial investment (about US\$350 per household for the domestic tanks) is unlikely to pay for itself through the maintenance of sweet potato vines. No cost estimate is given for the deep wells but, at first sight, it appears that the investment would both require major credit to particular farmers and would be hard to recoup.
Research outputs:	<ul style="list-style-type: none"> • A well-written draft working paper has been prepared on the technical issues, but should not be considered for publication unless a cost-benefit analysis and the credit implications are investigated.
The reviewer’s comment:	<ul style="list-style-type: none"> • Given the investment costs relative to local household income, it is not clear whether scaling up is possible without massive outside investment. The project might have benefited from an ex-ante analysis of the proposals from hydrological and cost-benefit points of view before the grant funds were invested.



Source: CPWF

Rainwater storage tanks and deep wells in Ghana’s Upper East region permitted farmers to maintain planting material in the dry season

Brief Description of Each Small Grant: *Africa - Limpopo Basin*

SG514 - Increasing agricultural productivity in Sekororo through rainwater harvesting from roads	
“Headline” result: Forty-eight cisterns of 12-101 m ³ capacity were built to capture runoff from roadways and other hard surfaces.	
Locations:	<ul style="list-style-type: none"> • Various locations with community schools, disabled communities, etc., in Sekororo.
Technology being adopted:	<ul style="list-style-type: none"> • Inexpensive construction of underground concrete storage tanks with the partial participation of community groups.
Innovations in, and analysis of, adoption:	<ul style="list-style-type: none"> • There was no study of adoption, or systematic design and promotion of farming methods to use the stored water which anyway is of very limited amount for intensive cultivation of, for example, a community garden.
Research outputs:	<ul style="list-style-type: none"> • There were no research outputs. Unfortunately, the project concentrated on investing only in the construction of cisterns rather than in studying how they could be used, or monitoring their actual use.
The reviewer’s comment:	<ul style="list-style-type: none"> • This unfortunately developed as a project focused on infrastructure development by the NGO concerned. It would have benefited greatly from an ex-ante cost-benefit analysis, planning of how the available water could be used and a research design to follow up the results of installing the cisterns.

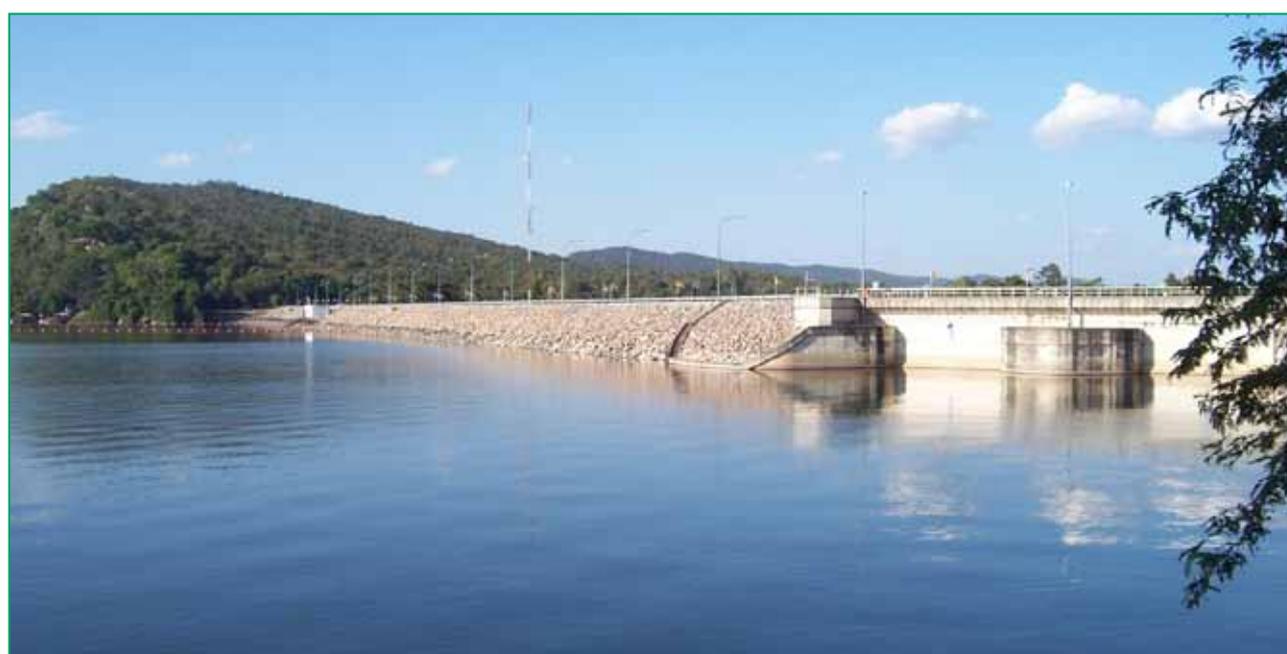


Drip irrigation of tomatoes at Sekororo in the Limpopo basin

Source: CPWF

Brief Description of Each Small Grant: *Asia - Mekong Basin*

<p>SG501 - Participatory water resource planning and development through a learning alliance approach in northeast Thailand</p>	
<p>“Headline” result: Community planning of water resources was developed based on the learning alliances of the CPWF multiple-use systems project.</p>	
<p>Locations:</p>	<ul style="list-style-type: none"> • Twelve learning centers and 200 villages in northeast Thailand.
<p>Technology being adopted:</p>	<ul style="list-style-type: none"> • No new technology, but many options are already included in multiple use systems used by so-called “wisdom networks” in different groups of neighboring villages. Many villages increased plans for installation or improvement of ponds.
<p>Innovations in, and analysis of, adoption:</p>	<ul style="list-style-type: none"> • The stepwise improvement of participatory processes for water use planning, from household and community level upward; the adoption of these methods as a model by the National Research Council; one project site was rated as the “best learning site” in northeast Thailand.
<p>Research outputs:</p>	<ul style="list-style-type: none"> • Action research results on initial testing of a system that links local communities right up to national government level, including modifications to the drafting of the national water law.
<p>The reviewer’s comment:</p>	<ul style="list-style-type: none"> • The report is couched in the most general terms, citing the need for confidentiality about informal agreements with government, etc. It is therefore difficult to tell how much was actually achieved and how much new ground was covered beyond what was already included in CPWF project 28 on multiple-use water systems. The preliminary nature of these achievements and, apparently, the need for some sensitive agreements to remain tacit rather than explicitly documented, make it difficult to fully evaluate this project from its report. A more explicit Most Significant Change (MSC) story, for example about the details from one village, or a follow up of what has happened after 3 years, would be a great help in understanding better the potential value of this approach.



Source: Wikipedia

Ubol Ratana Dam, Thailand

Brief Description of Each Small Grant: *Asia - Mekong Basin*

<p>SG 502 - Innovative market-based strategies to realize agricultural income through increased on-farm water productivity and market integration</p>	
<p>“Headline” result: Private extension of high-value crops, fertilizer briquettes and drip-kits increased income for Cambodian small farmers.</p>	
<p>Locations:</p>	<ul style="list-style-type: none"> Two districts (Svat Teap and Svay Chrum) of Svay Rieng Province in eastern Cambodia. In trials 36 farmers were involved; nearly 500 followed up with commercial plots of their own.
<p>Technology being adopted:</p>	<ul style="list-style-type: none"> High-value crops (cucumber, long bean, mustard greens and tomato were the most popular and successful; others were wax-bean, pumpkin and watermelon) with fertilizer briquettes to allow economical exact placement, and low pressure drip kits. Later, market-oriented poor farmers were helped by project lead institution International Development Enterprises (IDE) to identify and develop an opportunity for chili production timed differently from those of Vietnamese imports, both for local sale and for export to Thailand.
<p>Innovations in, and analysis of, adoption:</p>	<ul style="list-style-type: none"> A market-based commercial orientation was used even for the very poor farmers who were involved in this study whose household income was less than 1 US dollar a day. The elements included training of private extensionists who induced farmers to participate, guided them in their cropping and introduced them to suppliers; suppliers of drip-kits and a supplier of briquettes, and links to markets. By the end of the project, IDE still played the following roles: input purchase, product design and testing, market assessments, partial financing of private extension agent (PEA) loans, agronomic support to PEAs and PEA training. Future plans included developing a franchise model which involves the franchiser taking on the duties of product development, market assessments, branding and promotion, bulk input purchasing and quality control, and PEA selection, training and support.
<p>Research outputs:</p>	<ul style="list-style-type: none"> Income of target farmers more than doubled as they increased their effort and inputs in vegetable production. Water use was reduced by about 45% and labor requirements by 71%, although drip-kits used alone were not particularly profitable. The working paper describing the project is concise, well written, with full explanation and good data and should be a high priority for publication by CPWF. It analyzes the development and prospects of the private-oriented systems. The results on briquettes and drip-kits provided inputs to later, larger-scale projects developed with the Australian Agency for International Development, the International Fertilizer Development Center and the Asian Vegetable Research and Development Center.
<p>The reviewer’s comment:</p>	<ul style="list-style-type: none"> An outstanding, thoughtfully conducted and reported project that covers technological change in water and food, livelihood improvement, novel (private) extension processes and careful analysis of adoption.



Fertilizer Deep Placement (FDP): compressed NPK fertilizer briquettes

Source: IDE Cambodia

Brief Description of Each Small Grant: *Asia - Mekong Basin*

<p>SG504 - Increasing water use efficiency by using mulch under System of Rice Intensification (SRI) practices in northeast Thailand</p>	
<p>“Headline” result: Communities in northeast Thailand were enthusiastic about SRI practices.</p>	
<p>Locations:</p>	<ul style="list-style-type: none"> • Roi Et Province, northeast Thailand, working with 25 extension officials and 200 farmers.
<p>Technology being adopted:</p>	<ul style="list-style-type: none"> • Mung bean and cowpea interplanted using SRI concepts, which include alternate wetting and drying.
<p>Innovations in, and analysis of, adoption:</p>	<ul style="list-style-type: none"> • As no adoption data were provided it is impossible to determine whether this is a researcher-led, one-off promotion or will become established with farmers, especially since SRI approaches are sometimes described as very knowledge-intensive.
<p>Research outputs:</p>	<ul style="list-style-type: none"> • Yields of rice and legumes, and analysis of costs and benefits.
<p>The reviewer’s comment:</p>	<ul style="list-style-type: none"> • Given the lack of information on adoption it is impossible to state whether the enthusiastic reception by farmers – visible in a CPWF short film from 2006 and in person at the First International Forum on Water and Food – will actually lead to adoption when researchers are not present.



Source: <http://prmnuevaecija.blogspot.com/2011/02/system-of-rice-intensification.html>

System of Rice Intensification

Brief Description of Each Small Grant: Asia - Ganges Basin

SG 507 - Development and testing of training materials for scaling up micro irrigation small-plot technologies	
<p>“Headline” result: IDE Nepal developed step-by-step training materials for NGOs and thus successfully transferred small plot drip-kit technologies to Dilasa, an Indian NGO.</p>	
Locations:	<ul style="list-style-type: none"> • Mid-hills of Nepal and Maharashtra State, India (more specific information not provided in the report).
Technology being adopted:	<ul style="list-style-type: none"> • Technological, promotional and marketing steps for introducing drip-kit methodology to a new NGO and a new area. Beyond this, as an added benefit from an in-person visit to Nepal, three members of the Dilasa staff were highly impressed by multiple water use systems they saw with IDE in Nepal, and they carried these ideas back to Maharashtra.
Innovations in, and analysis of, adoption:	<ul style="list-style-type: none"> • The relatively new idea of developing training materials step by step working with an NGO, so that these can then be used for training another NGO elsewhere.
Research outputs:	<ul style="list-style-type: none"> • A very comprehensive set of instructional materials is now available for use by other NGOs as well.
The reviewer’s comment:	<ul style="list-style-type: none"> • A well-designed, successful project that added a different type of water management knowledge. It is notable that the in-person visit was reportedly the most productive part of the whole process, so that study visits should also be programmed wherever possible. CPWF should follow up to ensure that the training materials reach a wide range of NGOs – they should also be made available through the CPWF webpage.



Small-scale drip irrigation in Nepal

Source: IDE/CPWF

Brief Description of Each Small Grant: *Asia - Ganges Basin*

SG508 - Water-efficient farming and groundwater recharge systems for small farmers in Rajasthan	
“Headline” result: Water-saving, income-increasing alternatives to sole-crop cotton were demonstrated to farmers in the dry conditions of Rajasthan.	
Locations:	<ul style="list-style-type: none"> In Behror, Alwar District, Rajasthan, India 3,000 farmers from a total population of 300,000.
Technology being adopted:	<ul style="list-style-type: none"> Eight cropping “models” were tested and demonstrated with farmers including Sesbania-mustard intercropping; small check basins for wheat planting; sprinkler irrigation; furrow-irrigated raised beds; okra as a trap-crop in cotton; cotton-mung bean intercropping to reduce pesticide applications; intercropping of pigeon pea and mung bean; and a model garden including various drought-tolerant fruit trees. Depending on the innovation, from 5 to 225 farmers are reported to have tested each innovation.
Innovations in, and analysis of, adoption:	<ul style="list-style-type: none"> Although there is much talk in the report and working papers of participatory research, and the importance of this work being led by an NGO, it appears that the different “models” were in fact researcher-designed, farmer-implemented demonstrations. In the three draft working papers and the report there is no information on independent adoption per se by farmers. The flat-rate payment for electricity for pumping is apparently a barrier to adoption of water saving measures by those farmers who have access to more electricity.
Research outputs:	<ul style="list-style-type: none"> Much information on changes in yields, income and water use is provided, although the level of analysis varies depending on the “model” being reported. Note also that audio/video project assessments of several technologies, with farmers, are apparently available through IWMI-India although not included in the report.
The reviewer’s comment:	<ul style="list-style-type: none"> Because of the style of reporting, it is difficult to be sure how much farmer participation in design and how much potential for widespread adoption there really is. At one extreme, this might already be a very valuable project with much scaling-up potential and, at the other, it might merely have been a “typical” series of technician designed demonstrations with little chance of impact. Unfortunately it is impossible to determine the real situation from the extensive documentation provided. An on-site assessment visit by an impartial observer might therefore be worth the investment.

Brief Description of Each Small Grant: Asia - Ganges Basin

<p>SG 512 - Sustainable dissemination of low-cost irrigation technologies that impact lives of smallholders in Jharkhand</p>	
<p>“Headline” result: Small, poor farmers in India will buy irrigation solutions suited to their needs.</p>	
<p>Locations:</p>	<ul style="list-style-type: none"> • Various unspecified locations in Jharkhand State. IDE India set up a chain of two manufacturers and 225 local assemblers. 3116 farmers had purchased equipment after 18 months of the project.
<p>Technology being adopted:</p>	<ul style="list-style-type: none"> • Test-marketing of various irrigation solutions and stimulation of private sector supply chains. The solutions included the use of surface treadle pumps, rope and winch pumps, “family nutrition kits” (presumably a drip-kit), low-pressure sprinklers and low-cost drip irrigation.
<p>Innovations in, and analysis of, adoption:</p>	<ul style="list-style-type: none"> • Two working papers provide a good analysis of 120 early adopters, 110 of which used treadle pumps and 9 the rope and winch system (used when the well is deeper than 30 m).
<p>Research outputs:</p>	<ul style="list-style-type: none"> • Adopters grew more high-value crops and increased their cropping intensity. Their overall farm production increased, on average, by 43% and their per hectare income by 106%. The reduced use of diesel pumps had positive environmental consequences.
<p>The reviewer’s comment:</p>	<ul style="list-style-type: none"> • The working papers and the three MSC stories included in the report are of high quality. A confusion on the adoption studies is the mention of only two of the five possible technologies being promoted, with no discussion on the apparent non-adoption of the other three. An additional concern is that there was a reported unwillingness to show the results in the field to the CPWF basin coordinator.



Source: ipsnews.net

Treadle pump, India

Brief Description of Each Small Grant: *Latin America - Andean System of Basins*

<p>SG505 - Enabling endogenous potential for improved management and conservation of water resources in semiarid Andean ecosystems</p>	
<p>“Headline” result: Taking farmers out of their environment (physically and, consequently, mentally) and facilitating experiential learning on basic ideas in water management unleashed creative potential to green the landscape among Andean farmers living in areas that were once well watered but are now semiarid.</p>	
<p>Locations:</p>	<ul style="list-style-type: none"> • River Chota Valley of Ecuador; north Potosi area of Bolivia (San Pedro Buenavista and Sacaca municipalities).
<p>Technology being adopted:</p>	<ul style="list-style-type: none"> • Of the 41 farm families in Ecuador and 42 in Bolivia who worked directly with the project and who depended entirely on rainfed production at the outset, all were in the process of installing their own designs of water catchment systems after the 18 month project. There was a wide range of benefits from these household experiences; in the most striking cases, in under two years, the households built “an oasis in the desert,” with profitable animal (guinea-pig), fruit and vegetable production that rapidly repaid the initial investment.
<p>Innovations in, and analysis of, adoption:</p>	<ul style="list-style-type: none"> • The project approach emphasizes the science developed by communities themselves, supported by technical knowledge, recognizing that “expert science” from outside – although it may seem logical to those brought up within that professional culture – does not fit with local experience, in this case, in the Andes that have a long tradition of learning from, and living within, the environment. At the same time, the project hypothesized that local communities have been used to living with water shortage and do not perceive the water all around them – for example, in runoff from roofs, or stored in the soil (even more so when organic matter content is increased). Simple direct experiences (for example, weighing a sock full of soil when dry and again after immersion in water) helped communities to understand these principles and then work from them to develop their own solutions - see pp 3-4 of the SG 505 project report for a more detailed description of concepts and of the differences between “expert science” and “people’s science”. • In the practical application of these concepts, the project helped farmers take a step out of their reality, both in training workshops (developing their personal “map of dreams”) and in field visits to different experiences in water management. Farmer Field School methodology was used to develop water management skills and also to train specialist farmer trainers. In the most striking case, Bolivian farmer trainers who received experiential training in water management in field situations in Ecuador returned to train farmers in their own country. After the project, such experiences had, by 2008, already been carried into third generation trainees (i.e., farmers who had been trained by farmers who had been trained by those farmers who visited Ecuador). Thus, by 2008, the training had reached hundreds of farmers in Ecuador and Bolivia. The project also had an important influence on improving the knowledge of water management among technical people in local organizations and NGOs; to the surprise of the project, they, like the farmers, had very little knowledge of the principles of water management.

<p>Research outputs:</p>	<ul style="list-style-type: none"> The project did not, as the completion report explains, concentrate on conventional “scientific” data, although there is baseline information for all the households and communities. Instead there is a wealth of information on action research, much of which has not yet been fully analyzed, from the different options that farmers developed after initial training. The project was also highly influential in stimulating farmers’ own research, in developing “people’s science.”
<p>The reviewer’s comment:</p>	<ul style="list-style-type: none"> The completion report is very well written and full of ideas and information on concepts, techniques, results and network opportunities; it should be read in its entirety (22p.). Because soils are relatively fertile, and local markets can offer good opportunities in the Andes, starting a virtuous cycle of water capture and use can rapidly show results. Both this project and the influence on other CPWF members (especially through the contributions made by the project leader at the second International Forum on Water and Food) change the way of thinking about how to develop water and food technologies with farmers, especially the “Mode 2” (“people’s science”) approach to development. The approach will need careful handling within CPWF and in other sources of public and technical information since it will not be immediately obvious as a breakthrough to all those who read it. CPWF is left bearing this responsibility of continuity in the Andean region because of the regrettable withdrawal of World Neighbors, the original institutional home for this project. Fortunately, the former project leader is committed to continuing this type of work. As an immediate improved output, the former project staff could be supported to write up all 12 of the outstanding local cases of household water management that are mentioned, and to provide (if it has not already been achieved) a Latin American version of the “Agrodoc” training resource on soil and water management originally produced in English by the Wageningen Agricultural University.



Source: CPWF

Bolivian farmers exchanging lessons on water management

Brief Description of Each Small Grant: *Latin America - Andean System of Basins*

<p>SG510 - Associated cropping and enhanced rainwater harvesting to improve food security and sustainable livelihoods of peasant farmer associations in Santander Department, Colombia</p>	
<p>“Headline” result: Crop diversity, intercropping and conservation agriculture were spread through participatory methods and especially knowledge sharing among farmer associations from different communities and even across regions of Colombia.</p>	
<p>Locations:</p>	<ul style="list-style-type: none"> • Eight remote municipalities of Soto province, Santander department, Colombia, connected additionally to farmers from six other regions.
<p>Technology being adopted:</p>	<ul style="list-style-type: none"> • Forty traditional varieties of grains, vegetables, fruits, tubers and fodder crops were recovered during farmers’ “collective food banquets.” Strategies for agroforestry, soil conservation and water management were shared.
<p>Innovations in, and analysis of, adoption:</p>	<ul style="list-style-type: none"> • Participatory gender-sensitive methods were used with 250 families across 14 villages. Community to community partnerships in sharing traditional knowledge were important.
<p>Research outputs:</p>	<ul style="list-style-type: none"> • In four trials, each with a different design, water harvesting and drip irrigation of intercrops were studied.
<p>The reviewer’s comment:</p>	<ul style="list-style-type: none"> • The project appears to have set up a powerful knowledge- sharing approach among communities. The immediate results in terms of technical improvements to people’s livelihoods are not discussed, but these may be apparent later.



Source: CPWF

Searching for appropriate project sites, Colombia

Outcomes

1. Water and food technology for end users

The review assessment (see Table 1) considered the success of projects in terms of identifying water and food technology that was suitable for adoption by farmers, to the point that early adoption actually took place during the life of the project. The projects that were considered most successful in this worked on: water and soil moisture management in northern Tanzania (SG 503), organic composting, contour cultivation, seed nurseries and water storage in western Uganda (SG 513), high-value vegetable production linked to markets in southeastern Cambodia (SG 502) and integrated on-farm water management in Ecuador and Bolivia (SG 505). It is interesting to note that three of the four worked on difficult aspects of soil and water conservation and yet were in this group of the most successful projects. Other projects with apparent technical success, not easily assessed from the reports, worked on rice intensification in northeastern Thailand (SG 504), promotion of treadle pumps in Jharkhand (SG 512), transfer of drip-kit technology from an NGO in Nepal to one in India (SG 507) and alternatives to cotton monoculture in Rajasthan (SG 508). Three other projects were judged to have made smaller technical contributions and one (SG 514), no contribution.

2. Better understanding of adoption

Those projects that were judged to have made the most significant progress in understanding adoption or using new methods to obtain it worked on the careful stepwise introduction of private extension and market opportunities in Cambodia (SG 502),

developing training materials to transfer knowledge on introducing drip-kit technology among NGOs (SG 507) and to base integrated water management on farmer to farmer knowledge transfer among regions and countries in Ecuador and Bolivia (SG 505). Two other projects successfully developed knowledge-sharing among communities on community water use planning in northeastern Thailand (SG 501), and on natural resource management in northeastern Colombia (SG 510). Two projects spread knowledge of natural resources management, especially soil and water, through their vigorous technical teams in Uganda and Tanzania (SG 513 and SG 503). Three projects in Cambodia (SG 502), Tanzania (SG 503) and, with some incomplete interpretation, Jharkhand (SG 512) contributed a good analysis of the reasons for adoption or non-adoption. The remaining four projects made no discernible contribution to understanding adoption, apparently because conceptually they failed to distinguish between situations where a) technicians promoted technology and farmers followed politely without intending to adopt and b) farmers adopted through their own decisions. In future, it may be wise to make more effort to filter out before approval for financing those projects that fail to understand and plan for this distinction.

3. Stimulating better research by NGOs

The three most outstanding examples of contribution to research were very different from each other. The first (SG 503 in Tanzania) could be considered more conventional – it included both an excellent review of

water and soil moisture interventions (WMSIs) and a detailed study of adoption, or not, of these by farmers in an area of northern Tanzania. Another (SG 502 in Cambodia) was also relatively conventional – high-quality reporting of NGO-led technical innovation combined with detailed examination of adoptability.

The third example (SG 505 in Ecuador and Bolivia) contained little conventional research data or analysis, but an excellent reworking of research approaches for development and a very impressive stimulus to “people’s science” that generated a whole range of new options by households themselves, including some that transformed livelihoods in a matter of 2-3 years. Another interesting example (SG 501 on community planning on water management in Thailand) apparently contained valuable action research that was poorly reported.

Several other projects had good levels of research, and reporting of it, but with some deficiencies. SG 512 (Jharkhand, India) was a good study of adoption, as far as it went, but the non-adoption of some water delivery systems was not explained or apparently not investigated. Other projects had either apparently reasonable research without documenting it thoroughly (SG 513 in Uganda, SG 507 on training methods in Nepal and India) or plenty of research information without analyzing it convincingly (SG 504 on SRI and SG 508 on water saving technologies in cotton systems).

4. Contribution to policy

Five projects (SG 501, 502, 503, 505, and 513) made contributions that are noted in Table 1, that may prove important to policy makers. Two made slight contributions and five made no discernible contribution at this point.

5. Linking researchers better with development experiences

One purpose of investment in CPWF small grants was to ensure that NGOs and others working closely with farmers would take part in CPWF and other international meetings and help the mainstream CPWF researchers to be more in contact with grassroots development challenges. This happened by them being chosen to take part in one of the two International Fora on Water and Food; the selection was actually carried out by CPWF management since small grant budgets were insufficient to fund travel. Those projects chosen for one or the other of the Fora were SG 503 (Tanzania), 513 (Uganda), 505 (Ecuador/Bolivia), 510 (Colombia), 504 (northeast Thailand) and 502 (Cambodia). In addition, the leader of SG 513 was invited to make a presentation at a SIWI/CPWF seminar in World Water Week in Stockholm in 2006. The leader of SG 505 led the “Policy and Practice Panel” in the Second International Forum on Water and Food and, with the panel, made a major contribution to challenging the thinking of CPWF and its researchers. Five projects influenced CPWF thinking early on when their most significant change (MSC) stories were published as part of a CPWF collection (CPWF Working Paper 03)

Many of the most interesting results from the small grants were not widely known among CPWF researchers. Working papers and MSC stories offered with the final reports have unfortunately not been properly publicized until now, given that this period coincided with the approval stage of the external review of the CPWF and major governance and management changes in 2008. More influence on thinking might have resulted had the experiences reported here been better known earlier in CPWF Phase 1.

Beyond the institutions that participated in the 14 funded small grant proposals, some 300 institutions were added to those that had previously participated in offering proposals to the CPWF; the call thus had a major effect in increasing public awareness of CPWF and its goals, even though, unfortunately, few proposals could be funded.

Comments from reviewers of the proposals

Most of the reviewers provided detailed and insightful comments on the selection process and on the quality of the proposals received that would be very useful in the future for similar efforts. Most were pleasantly surprised by the quality of many of the proposals. Two reviewers who had taken part in screening of the 350-plus concept notes from the first competitive research call of the CPWF commented that as a group the small grant proposals were more focused on reality and relevant to farmers' needs than the concept notes. Perhaps to be expected because of the different nature of the two calls, it is nonetheless striking that a call in which many NARES and national NGOs led the writing produced commendable results.

Other comments and suggestions for the future received from the reviewers included the following:

- For CPWF, it would be important to develop a critical mass of small grants and to follow them up in specific areas of CPWF basins.
 - More specific targets should be requested in the proposal format since many proposals were very general and attempted to “be all things to all people.”
 - A number of proposals concentrated on capital investments for a few fortunate farmers; these should be discouraged.
 - Eighteen months may be too short a time to consolidate local results from such projects
- Supporting documentation about NGOs with the proposals would be helpful (this was only requested for those that had been selected for contracting).
 - Relatively few proposals offered high quality explanations of both technology and process (notably, the best final project reports did manage to cover both).
 - Women were almost often absent from the staff proposed to conduct the work and were rarely mentioned as end users, which is shocking considering that they are a majority of the end users in much of Africa. A number of the selected proposals were worthy exceptions.
 - Proposals in the requested area of “self-monitoring” were not well developed and could be helped in the future by more guidance and training in this area.

Several of the reviewers congratulated the CPWF on the high quality and institutional diversity of many of the proposals received. They considered that most of the 126 reviewed proposals represented useful and serious potential contribution to the welfare of local communities in a way that was relevant to CPWF goals.

As an illustration of this, seven proposals not ranked in the top 15 were considered worthy of special mention by two of their three reviewers, and ten others were commended by at least one.

Sometimes these reviewers may have missed severe defects that the less-enthusiastic reviewer(s) may have detected. However, in many cases these proposals were eminently fundable. There were probably at least 20 proposals requiring a further US\$1.5 million that deserved to be funded.

Discussion, with reference to the future

The very best projects showed that it was possible to combine all the aspects that the small grants program had sought although each of them did this in different ways. These projects were SG 505, SG 503 and SG 502. SG 513 was also rated very highly for highly practical local impact; its documentation was relatively limited, meaning that it was less possible to be completely sure of its contribution to adoption ideas, to policy and to research. The project leader also made an impact in the Stockholm World Water Week where she participated.

These four most outstanding projects were led by, respectively, an international NGO, a NARES, and a national NGO. The two least successful projects among those that actually reported (SG 514, SG 506) were led by an international NGO and a NARES. And they were followed by one led by a national NGO (SG 508) whose results may be of considerable significance and use for farmers but whose reporting, that confused successful demonstrations with adoption, devalued the project reports. It is therefore not possible to conclude that particular types of projects make institution more or less successful. Instead it appears that much depends on the quality and circumstances of each institution, whatever its type.

Of 14 projects, only two (SG 509 in Ethiopia and SG 511 in Iran) failed to conclude and provide a report while another one or probably two (SG 514 in South Africa and SG 506 in Ghana) could be considered not to have used investment wisely because it was driven by poorly conceived infrastructural investments.² Therefore, the other ten could be considered to have been a worthwhile investment,

2 It is particularly striking that SG 514 was ranked much lower (42nd out of 126) than the other selected projects (which were all ranked in the top 14). It was only included as the top-ranked proposal so as to provide some small grant activity in the Limpopo Basin. Hindsight suggests that it should not have been supported.

with benefits for end-users likely and with all ten contributing to understanding of adoption, to research or to policy, or to a combination of these. This is a very high success rate for relatively inexpensive and potentially risky investments, which allows strong advocacy that further small grant investments by CPWF should be considered in the future.

The preparation of this review, some two years after the conclusion of the small grant portfolio is a belated recognition that, despite plans originally made, and interest of CPWF management in the topic, the weight of other responsibilities caused under-exploitation of these experiences by the CPWF, although probably they were well used by the organizations concerned.

Final documentation provided by small grant projects was very variable in amount and quality. Some of the best documentation was concise. Other projects reported in excessive detail but not necessarily answering the key questions. For example, even though NGOs were reporting, some failed to distinguish between the presence of trials and demonstrations from adoption by a farm family. It seems that NGO staff, even though they are closer to farmers, can be as prone to “wishful thinking about adoptability as some researchers.”

There are several opportunities for publication of working papers and for public information on the legacy of CPWF Phase 1 projects (Table 2).

Future lessons

Small grant investments appear to be a remarkably productive way of investing part of CPWF or similar funds. For less than the cost of a single “typical CPWF 3 to 5 year research project,” results from 14 small grant projects included tangible options for farmers

in ten different areas of four basins and contributions to the understanding of adoption in eight different cases. Four of the small grants were outstanding in their contribution across all the objectives of the small grants, while six others made significant contributions to one or more, representing together a high success rate on the original investments. The least successful small grants project were those that focused on infrastructural investment; in the future, infrastructural investments should not take more than a part of the grant if any, and where they are present, there must be a clear research protocol.

Although fixed costs are a higher proportion of total costs in such a portfolio where the amount of each grant is relatively small, compared to portfolios of large projects, this was compensated for by the very good value for money of many small grants. To minimize administrative costs, disbursement was done in only two tranches, while reporting requirements were very light, except at project conclusion. Abuse was rare – only two cases received money without reporting fully and in one case (Iran), local factors seem to have been the problem.



Household market gardening, Cambodia

Source: CPWF

Table 1. Summary evaluation of CPWF small grant projects

Project number and country	Lead institution	Water and food technology suitable for end users	Better understanding of adoption	Contribution of NGOs to research	Contribution to policy	Total score
503 Tanzania	Soil-water Management Research Group, Sokoine University	Identify and revitalize existing WMSI +++	Good analysis of conditions for adoption of WMSI ++	Excellent information both locally and in African WMSI and adoption +++	Many policy recommendations on how bylaws hold back WMSI ++	10
513 Uganda	St. Jude Family Projects and Organic Training Centre	Organic composting, contour cultivation, nurseries, polythene lining in runoff pits +++	Very practical success in adoption; excellent example of political spread ++	Straightforward and simple, but effective. Limited documentation ++	Connections to national and international level ++	9
506 Ghana	Savanna Agricultural Research Institute	Concrete-lined deep wells. Roof runoff collection; drip-kits +	Deficient. No certainty that techniques are cost-effective. 0	Well documented but limited to technical; no adoptability +	None 0	2
514 South Africa	World Vision South Africa	Runoff storage tanks 0	None 0	None 0	None 0	0
501 Thailand	Khon Kaen University	Promotion of multiple water use; construction/ improvement of ponds +	Stepwise introduction of participatory processes for water use planning ++	Good action research, but incomplete reporting ++	Apparently influencing regional and national level +++	8
502 Cambodia	International Development Enterprises (Cambodia)	Markets, high-value vegetables, fertilizer briquettes, drip-kits +++	Market-based commercial orientation, private extension, careful stepwise introduction, excellent analysis of experiences +++	Excellent concise outputs with technical and social data +++	Market assessment as key, private extension ++	11
504 Thailand	Asian Institute of Technology	System of Rice Intensification, including intercropping of mung bean and cowpea ++	No adoption data. Apparent farmer participation and enthusiasm. +	Limited analysis of yield, costs and benefits +	None apparent 0	4

Project number and country	Lead institution	Water and food technology suitable for end users	Better understanding of adoption	Contribution of NGOs to research	Contribution to policy	Total score
507 Nepal/ India	International Development Enterprises (Nepal)	Training materials for NGOs in technology & promotion of drip-kits ++	Test of NGO to NGO methods +++	Carefully prepared training materials available ++	Importance and feasibility of spreading knowledge among NGOs +	8
508 India (Rajasthan)	Humana People to People	Water-saving and pest-reducing intercrops instead of, or in addition to, cotton, fruit tree gardens +	Relationship: testing-demonstration-adoption is completely opaque 0	Much information; implications not well analyzed ++	None mentioned nor apparent 0	3
512 India (Jharkand)	International Development Enterprises (India)	Surface treadle pump, rope and winch pump ++	Study of factors affecting adoption; installation of private supply chain ++	Adoption data, although with some questions not examined ++	Private sector supply chains +	7
505 Ecuador and Bolivia	World Neighbors, Andes Area Program	All 83 households that initially participated installed own designs of water catchment systems for integrated on-farm water management +++	Very inventive stimulation of “people’s science” to mobilize lasting endogenous solutions to their own challenges; farmer to farmer +++	Outstanding stimulation of farmers’ own research; challenge to the current paradigm of CPWF and others +++	Importance of rainwater management (many policy levels); rethink research process +++	12
510 Colombia	Fundaexpresion	Recovery of traditional varieties, intercropping, conservation agriculture +	Innovative knowledge-sharing among communities and regions. Combining technician and endogenous knowledge ++	Limited research trials on intercropping and conservation agriculture +	Influence on policy not clear 0	4

Note on evaluation: 0: No contribution; + Limited contribution; ++ Significant contribution; +++ Major contribution

Table 2. Documented outputs from CPWF small grant projects (best opportunities in italics)

Project number and country	Key words	Working paper(s) meriting CPWF publication	Other working paper(s) not meriting publication	Most significant change stories	Papers in IFWF 2 proceedings	“Legacy stories” for web
503 Tanzania	Conditions for sustainable adoption of water and moisture system innovations	<i>Annex A: Enhanced adoption of high potential interventions for increasing agricultural water productivity</i> <i>Annex B1: WMSIs in the Nile Basin</i> Annex B2: Review of adoption theories and models	Two other brief working papers Annex B3: Review of KS and communication strategies Annex B4: Review of policies related to adoption of WMSIs (in Tanzania)	In CPWF WP 03	Vol III	
513 Uganda	Teaching rural women; water harvesting and conservation		Report only, but with very practical details	In CPWF WP 03, one added in report		<i>Extract from report</i>
506 Ghana	Catchment and water use efficiency; high-value dry-season crops; permanent water capture structures		Enhancing water capture for post-rainy-season crop production in semiarid Ghana (needs better economic/adoptability analysis)			
514 S. Africa	Rainwater harvesting from roads					
501 Thailand	Participatory water resource planning; learning alliance					
502 Cambodia	Market-based strategies; agricultural income; on-farm water productivity and market integration	<i>Market strategies for water productivity.</i> <i>N. Baxter (highly recommended)</i>		<i>Three good brief MSC stories included in final report</i>	Vol II	<i>Extract from working paper/ MSC story</i>

Project number and country	Key words	Working paper(s) meriting CPWF publication	Other working paper(s) not meriting publication	Most significant change stories	Papers in IFWF 2 proceedings	“Legacy stories” for web
504 Thailand	Water use efficiency; system of rice intensification		Participatory Action Research: Water Use Efficiency in System of Rice Intensification (SRI) and Green Mulch in Northeast Thailand	Three weak MSC stories in final report	Poster	
507 Nepal/ India	NGO training materials for micro-irrigation				Vol III	
508 India (Rajasthan)	Water- efficient farming; groundwater recharge; arid area		Three papers by that serve as a project report	In CPWF WP 03. Two weak MSC stories in final report.	Poster	
512 India (Jharkhand)	Dissemination of low-cost irrigation technology; market approach	<i>Test marketing low-cost irrigation solutions in Bihar and Jharkhand. S. Verma (IWMI-TATA)</i>	Is the treadle pump better for the small farmer? Only 7p. Might be added as an Annex to the IWMI-TATA documents, acknowledging IDF	<i>Three good brief MSC stories in final report</i>		Extract form MSC stories; data in working paper
505 Ecuador and Bolivia	Water management and conservation; people’s science			In CPWF WP 03. <i>Eleven other stories apparently available</i>	Poster	<i>MSC story and possibly new ones</i>
510 Colombia	Knowledge-sharing; farmer associations		Brief working paper (3p.) at end of report	In CPWF WP 03		

All 12 projects produced a completion report according to the required format. By the time of this review, SG 511 only produced an interim report about delayed institutional arrangements; SG 509 produced no information of any type.

Annex 1. Details of the Selection Process

The key information for the 208 proposals received was reviewed by the management team leading to the immediate elimination of 82 proposals because they were ineligible. The principal reasons were that no NGO was included; that no CV was included, that the proposal did not work primarily in a CPWF benchmark basin; and a CPWF benchmark basin coordination institution was not included. Those proposals eligible were spread unevenly across basins (Sao Francisco, 0; Karkheh, 1; Limpopo, 4; Yellow, 7; Mekong, 9; Volta, 13; Andes, 20; Indus-Ganges, 29 and Nile, 41).

In advance of the closing date of the call 30 potential reviewers were identified by the CPWF management team based on the following criteria:

- Broad international experience and reputation.
- Interested in and knowledgeable about research/development interface.
- Knowledgeable about natural resources management research.
- Knowledge and interest that bridge the biological/social science gap.
- Even if involved in other CPWF work, would be perceived to be independent in this review.
- Known for rapid, reliable response to commitments.
- Likely to be able to give 2-3 days in a 2-week time slot.
- No likely connection with institutions that may submit (this was screened carefully when distributing proposals for review).
- Unlikely to take extreme positions that would bias an average based on three reviews.

Seventeen reviewers were able to accept the invitation to conduct remote virtual reviews of the proposals in the narrow time window available (25 October to 7 November). Once eligible proposals were identified by the secretariat and management team, each proposal was assigned for evaluation by three reviewers based on their geographical areas of expertise. In general, one person with a biological focus, one with an economic focus and one with a social science focus were chosen for each proposal. Where there were fewer than 20 proposals in any basin these were assigned to the same reviewers, so as to increase the quality of discrimination amongst the proposals in each particular basin, except in a very few cases where potential conflict of interest needed to be avoided. Where there were more than 20 proposals, two sets of three reviewers were used, assigning at random the two available in each disciplinary area.

The selection criteria were:

- Quality of proposal, consisting of quality of methodology proposed; account taken of existing knowledge and experience; probability that impact will be delivered in the time available; and technical feasibility.
- Strategic relevance to CPWF research agenda, consisting of congruence with CPWF development agenda; addressing a critical issue with the potential to increase impact from other

CPWF projects; possibility of scaling-up and scaling-out, including of other river basins; and using an innovative or original approach to obtain results.

- Quality and institutional mix of the team, consisting of appropriate technical skills available, using an interdisciplinary approach; proactive in encouraging stakeholder participation; and evidence of established relationships over at least 5 years in the geographical area.
- Value for money.

Before studying the results, the management team agreed on the following policy: To begin the best 15 proposals based on mean rank would be selected. However, if any basin had more than three proposals in this group, only the three highest ranked would be chosen. For those basins with no representative in the top 15, the best ranked proposal would be taken from lower in the list provided that it was of sufficient quality.

To minimize the effects of differing level of severity among reviewers, the proposals were evaluated by ranking the evaluation score assigned by each reviewer. Where reviewers concentrated in one basin this is highly reliable in ensuring that the most respected proposals are chosen. Where reviewers cover a few proposals in each of several basins because few proposals were submitted (Karkheh, Limpopo, Mekong, Yellow) the proposals from one basin may suffer if they are generally inferior to those in the other basins. This appears to be the case of Limpopo and Yellow rivers so that the management team inspected these proposals with care.

Several checks were included to ensure careful selection. First, the comments by each reviewer on each proposal among those potentially selected were studied in detail. In particular, if a reviewer had ranked low a proposal favored by other reviewers, the reasons were investigated carefully. The reviewers were also asked to provide a more subjective impression of the five most outstanding proposals they had reviewed, without necessarily referring back to their scores. These results were compared with those based on ranking. Finally, one member of the management team and the appropriate basin coordinator studied each proposal to check for anomalies such as research that would be impossible in the time available, research that had apparently been done before and was being “recycled,” proposals in which no institution had been active in the geographical area for the required five years, and “convenience NGOs” created for the purpose of obtaining these funds. A further check on the legal status on the lead institutions and the bona fide nature of the NGO(s) involved will also be carried out before final contracting.



Source: IDE Cambodia

Field trial comparing drip irrigation (on right) to traditional bucket irrigation practice (on left)

Impact Assessment Series (IA)

- IA 04 Improving knowledge for targeting interventions: willingness of individuals to participate and calculation of institutional environment indices.
Jorge Rubiano and James Garcia
International Center for Tropical Agriculture
Cali, Colombia
2009
- IA 05 Aerobic Rice - responding to water scarcity
An impact assessment of the 'Developing a System of Temperate and Tropical Aerobic Rice (STAR) in Asia' project.
Deborah Templeton and Ruvicyn Bayot
2011
- IA 06 Citizen Participation in Managing Water:
Do *Conversatorios* Generate Collective Action? An Outcome Evaluation of the CPWF Project: Sustaining Collective Action Linking Economic and Ecological Scales in Upper Watersheds (SCALES/PN20).
Diana Marcela Córdoba and Douglas White
2011
- IA 07 Managing water and land resources for sustainable livelihoods at the interface between fresh and saline water environments in Vietnam and Bangladesh - a project funded by the Challenge Program on Water and Food (Impact Evaluation of the Vietnam component).
Bronwen McDonald
2011
- IA 08 Strengthening CPWF project evaluations: Assessing research-for-development impact.
John Mayne
2011
- IA 09 Strengthening CPWF project evaluations: Review of the CPWF small grants initiative.
Jonathan Woolley
2011

About CPWF

The Challenge Program on Water and Food was launched in 2002 as a reform initiative of the CGIAR, the Consultative Group on International Agricultural Research. CPWF aims to increase the resilience of social and ecological systems through better water management for food production (crops, fisheries and livestock). CPWF does this through an innovative research and development approach that brings together a broad range of scientists, development specialists, policy makers and communities to address the challenges of food security, poverty and water scarcity. CPWF is currently working in six river basins globally: Andes, Ganges, Limpopo, Mekong, Nile and Volta.

About this Impact Assessment

This working paper reviews the experiences of the Challenge Program on Water and Food (CPWF) with 14 “small grants for impact” that were contracted in early 2006 and operated for periods of 12 to 18 months. The small grant projects made significant contributions in a number of areas including: 1) identifying water and food technology for specific end users 2) better understanding of adoption 3) stimulating research by nongovernmental organizations (NGOs) and 4) better connecting CPWF researchers in general to the reality of the development process. This review concludes that calls for small grant proposals are an effective way of obtaining local impact and of connecting a wide range of relevant institutions to the efforts of a network such as CPWF.

Mailing address:

CGIAR Challenge Program on Water and Food

P.O. Box 2075

127 Sunil Mawatha,

Pelawatta, Battaramulla,

Sri Lanka

Tel +94 11 288 0143

Fax +94 11 278 4083

Email: cpwfsecretariat@cgiar.org

www.waterandfood.org

