FIVE YEARS LATER

GWI EAST AFRICA END-OF-PROGRAM PHASE I REPORT, NOVEMBER 2012

VSLA members in Uganda carrying out their transactions

The Global Water Initiative
A Partnership Funded by the Howard G. Buffett Foundation

Report Consolidated by:

Headquarters Program Management Team, GWI East Africa

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Acronyms

ACF	Action Against Hunger|ACF International
CLTS	Community-led Total Sanitation
CRiSTAL	Community-based Risk Screening Tool- Adaptation & Livelihoods
CRS	Catholic Relief Services
CVCA	Climate Vulnerability and Capacity Analysis
GWI EA	Global Water Initiative East Africa
IGA	Income Generating Activity
IR	Intermediate Result
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resource Management
LEM	Learning, Evaluation and Monitoring
LPA	Learning and Practice Alliance
NGO	Non-governmental Organization
NRM	Natural Resource Management
ODF	Open Defecation Free
SILC	Savings and Internal Lending Committees
SO	Strategic Objective
VSLA	Village Savings and Loan Associations
WASH	Water, Sanitation & Hygiene
WHO	World Health Organization
WRUA	Water Resource User Association
WUA	Water User Association

Executive Summary

The Global Water Initiative East Africa began in 2007 in Kenya, Tanzania, Uganda, and Ethiopia, in regions identified as most in-need by a baseline evaluation. The program aimed to reduce vulnerability in these areas to water-related shock and improve the quality of life of target populations through Integrated Water Resource Management. The first phase of this program, from October 2007 until October 2012, focused on three strategic objectives: good governance, sustained multiple uses of water, and risk management.

Although governmental structures existed at multiple levels (e.g., community, district, basin, national) before the intervention there was little visibility of policy implementation or government support on the ground. Water-focused community-level initiatives were either weak or non-existent. A snapshot review of Phase I showed that GWI was effective in setting up strong community governance systems especially in terms of participation, inclusion and decision-making (e.g. 80 percent of committee officials were elected by their communities). Committees showed an increased representation of both genders (50 percent reported that women comprised half or more of their committees) and 73 percent of schemes were reported to be governed with by-laws, guidelines and internal articles. By becoming an increasingly valuable stakeholder, GWI was able to influence district-level planning decisions as well as provide on-the-ground services. The initiative has improved financing through securing co-financing from communities, governments, other NGOs and additional funders; developing water user committees responsible for fee setting, collection, and maintenance; and through building capacity around community managed savings and loans associations. It is shown that 67 percent of schemes are now "just about covering the costs" needed to maintain schemes and 22 percent of schemes are able to save. Seventy-two percent of women report improved financial situations due to GWI thanks to changes such as reduced costs of water, having more time for income generating activities, and cost-saving changes in household health statuses.

In regards to the second strategic objective, GWI has provided a total of 306,533 users (registered and non-registered) with increased coverage of basic water services and sanitation coverage has increased for 153,545 households plus additional primary school children. The most common water access technologies provided to these four countries are boreholes, hand dug wells, and spring catchments. In addition to basic water services this initiative has increased multiple uses of water over the past five years with a focus on irrigation, clothes washing facilities, cattle troughs, and showers. Sixty-eight percent of women report double or more water use, with 48 percent reporting that it takes half the time or less to fetch water compared to before, and 76 percent reporting significant improvements in water quality. Furthermore, GWI was credited with improving personal safety and contributing to community development, economic empowerment, and health.

Baseline evaluations observed that there were limitations in local governments' capability to plan for and react to natural disasters, indicating a lack of early warning initiatives and emergency preparedness in response to the most common shocks experienced (e.g., drought, flood, conflict). At the close of the implementation phase, a rise in awareness and capacity around risk reduction can be seen at the community level. Vulnerability assessments and mitigation planning exercises have been conducted and have identified further actions communities can take in order to increase resilience to weather related shocks. Moreover, with the aid of GWI partners, communities have launched conservation initiatives such as tree planting and conservation area enclosures. New groups, such as school environmental clubs

and community level natural resource management committees, have been formed in program areas. Elected members of such committees have attended trainings led by relevant ministries on natural resource management, disaster risk management and climate change issues. Lastly, GWI is using its political capital on local and sub-catchment governmental levels in order to raise awareness and increase political action related to climate change and incorporate risk reduction measures into annual plans.

GWI East Africa has held bi-annual regional meetings in order to create a forum for learning and across the program. At the national level, program coordinators have launched multiple in-country as well as cross-country exchange visits and partner reviews. Learning, Monitoring and Evaluation survey results show that new evidence is being applied to decision making (80.9 percent agree or strongly agree) and monitoring and evaluation process are helpful tools (86 percent agree or strongly agree). Many respondents agreed that they were effectively learning how to implement good programming across the three strategic objects (Good governance - 90 percent; Sustainable multiple uses of water - 93 percent; Risk management - 54 percent).

It is important to note that over the five year period, GWI's approach has evolved with less emphasis on delivering services and more on facilitating change. The initiative has learned many key lessons throughout Phase I, including understanding the complexities and limitations of promoting equal voices; managing collaboration among multiple organizations and agencies; sustaining community empowerment and multi-stakeholder engagement; and managing the balance of attention towards achieving all strategic objectives.

To ensure lessons learned are incorporated into Phase II of GWI, the program will carry out four main activities. GWI will continue to collect and analyze relevant data from Phase I using the Learning, Monitoring and Evaluation tools; continue to monitor and understand the factors that contribute to sustainability of water schemes; use capacity building tools to assess potential risks to livelihoods; and undertake an external impact assessment at a later date to better gauge long term sustainability.

Background

The Global Water Initiative East Africa began in 2007, working in some of the most barren and underserved areas of Kenya, Tanzania, Uganda and Ethiopia. A baseline evaluation identified the following prevailing conditions within the program's targeted areas: low access levels to safe/reliable water sources, a high percentage of pre-existing water schemes fallen into disrepair, limited scope for exploiting new water sources, weak capacity of communities and local authorities to independently and effectively manage their water-related resources and mitigate water-related climatic shocks and conflict, and very low levels of appropriate hygiene and sanitation behaviors in the home and at schools.

Through a partnership comprised of five international NGOs: Action Against Hunger, CARE, Catholic Relief Services, Oxfam, and IUCN, in addition to local partners, the program aimed to transform the lives of target populations, as expressed in the program goal:

> *Poor rural communities in arid and semi-arid zones [will] reduce their vulnerability to water-related shocks and improve their quality of life through Integrated Water Resource Management (IWRM) in Ethiopia, Kenya, Tanzania & Uganda.*

Achievements

In its first phase[1], the program's multiple and interconnected objectives aimed at transforming the daily lives of those most lacking WASH services, while changing the way water basins are managed and climate change effects are mitigated at a local and national level. This has required an ambitious spread of activities that have unfolded at varying paces in the four implementation countries over the course of five years. The early years were spent in addressing and coordinating administrative issues and strengthening the partnership while establishing the relationships with government and community that would pave the way for progress against each of the strategic objectives (SOs). Recent years have seen more momentum and concurrent progress in each of the SOs. This section describes the overall achievements of the initiative.

Strategic Objective #1: Good Governance

Supporting good governance was identified from the beginning as critical to progress for GWI. The program design called for governance-strengthening efforts within communities, with local government (basin or district-level or equivalent), and to some extent, with national government.

Governance structures at all these levels were generally established within the implementation areas, though unevenly so; though many countries had newly introduced IWRM legislation prior to or around the start of the initiative, within the implementation areas there was little evidence of this and very little

[1] The first phase of the initiative covered the period from October 2007 to October 2012. Funding for a second phase has been approved with a focus on water for agriculture.

visible government support on the ground. Community-level water-focused initiatives were few and far between and where they existed they were generally weak. The baseline noted that,

> *Community IWRM structures were not yet established in all programme sites and where they existed the structures had inadequate capacity and faced a number of challenges. At the time of the survey, IWRM skills building for community structures was just starting. Non-domestic water users like irrigators and pastoralists were the least organised and least represented of all water users.*

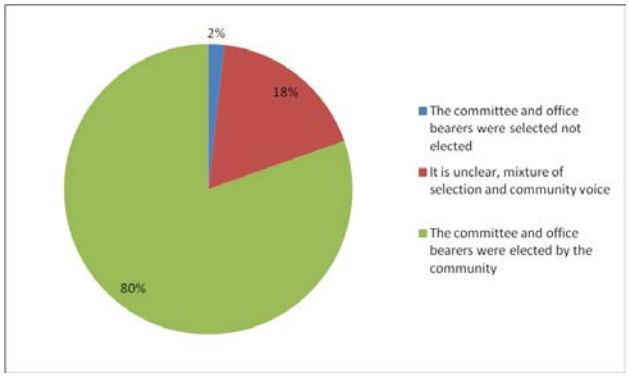
Figure 1: Strategic Objective #1 - Good Governance

Intermediate Result 1.1 - Capacity of Local Stakeholders for Inclusive Decision Making
Intermediate Result 1.2 - Improved Legal and Policy Frameworks
Intermediate Result 1.3 - Creative Financing to Multiply Scale
Intermediate Result 1.4 - Community Capacity to Support/Implement Enhanced by Gender Equity and Diversity

The program aimed for four intermediate results (IRs) within the GWI's objective of supporting good governance around water, as specified in Figure 1.

The first IR on building "capacity of local stakeholders for inclusive decision-making," was complicated, like many others, by the fact that GWI targeted the most vulnerable communities in arid and semi-arid areas. These were communities eking out a livelihood in the manner in which they had done so for centuries, often in increasingly difficult conditions. Many had low levels of education, were marginalized from engagement in the wider society and nation, and had little political agency. Some, as in the case of Northern Uganda, were re-establishing themselves after conflict and displacement, others were having to adapt their livelihood systems in terms, for example, of transitioning between pastoralist and agro-pastoralist ways of life. Many of the early investments of the initiative therefore involved working to revitalize existing or establish new community structures that could serve as water user committees/associations and environmental protection structures, giving communities a practical governing structure for their water resources while also providing an example of participatory and democratic community governance. The initiative accomplished this through participatory approaches that promoted community-level decision-making and the legitimization and formalization of these structures, such as through linking them with local government and aiding them in implementing bylaws.

Figure 2: Process for committee and office-bearer choice (n = 276 committees)



In a snap-shot review of the water-related community structures that the GWI program supported, the feedback was clear that the program had been very effective with early aspects of setting up strong community governance systems, particularly regarding participation and inclusion. For example in 80 percent of cases, the schemes' committee and office bearers were reported as having been elected by the community (see Figure 2). The scores are also high

in terms of decision-making within the committee with 74 percent reporting that most, if not all, members took part inclusively in decision making.

The figures on women's participation were also strong since 51 percent of committees in 2012 had more than 50 percent women's participation and women were reported as having a significant role in decision making in 78 percent of cases. In addition, committee and office-bearers were deemed to be representative of different interest groups in the community in 88 percent of schemes.

Also encouraging was the fact that the community's knowledge about the right to replace water user committee members was high at 78 percent. Similarly in terms of whether or not the schemes were governed with by-laws, guidelines or internal articles, the findings were that these were in place and working well in 73 percent of cases.

However, there were some discouraging signs. For example, only in 49 percent of cases were water user committee meetings being held regularly and the findings on reporting back to the community—and therefore being accountable to the community—stood at 61 percent.

As well as the general effort in ensuring that new or rehabilitated schemes were well governed, additional efforts in the area of building capacity in inclusive decision making included such approaches as testing out community video in Kenya. GWI trained communities in making short videos that could express their environmental concerns to government—an excellent example of how GWI strengthened some pathways of discourse and accountability between citizens and government.

Community members of Tula Village shooting their own stories

The examples above also link to the second IR and the issue of supporting an improvement in legal and policy frameworks. Throughout the four countries GWI saw itself, and was seen by others, as primarily helping increase services to the most vulnerable whilst improving the enabling environment through community level governance structures and through its relationship with local government. Working on the ground provided opportunities to be considered important partners and stakeholders that government consulted. It also led to supporting learning alliances, and participating in existing—or where these did not exist forming new—WASH and/or IWRM-related fora. Over time, the relationship with local government therefore grew from, in some cases, being purely courtesy links with nominal structures that were severely under-resourced and understaffed, to becoming a core partnership. This often followed significant capacity building on both sides, particularly in the area of IWRM and risk reduction. As GWI gained credibility through its service provision, in later years, the initiative was able to influence district-level planning decisions, while also starting to gain an audience at the national level. An example of this comes from Tanzania where GWI partners led a collective effort with the Ministry of Water, the basin water boards, NGOs, civil society organizations, the private sector and communities to formulate guidelines for the formation of WUAs across the nine river basins in Tanzania.

The initiative has made its mark in three ways as far as financing is concerned, in keeping with the IR on "Creative Financing to Multiply Scale." The first method has been through co-financing in different ways from community and government contribution to additional financing from other funders and other NGOs. Table 1 summarizes the total co-financing achieved by source, as reported by partners.

Table 1: GWI co-financing over the life of the project

Source	Total (USD) (Oct/07 to Sep/12)
Community (Cash & in-kind)	702,379
Local Government (Cash & in-Kind)	272,024
Institutional Aid Agencies	848,687
Corporate Contributions	34,709
Private Individual Donations	819,554
GWI Partner Contributions	568,861
Total	3,246,214

The second form of creative financing to multiply scale is around the efforts put into developing water user committees that are responsible for fee setting, fee collection and operations and maintenance, i.e. by setting up community managed financial systems that aim for long-term functionality of the schemes and can expand within the limitations of water availability and consumer demand. The 2012 snapshot provides heartening evidence of some successes as far as the degree to which this was achieved. In an encouraging 67 percent of schemes, communities noted that they were just about covering the costs needed to maintain schemes and in 22 percent that they were able to save. Also encouragingly, seven percent reported that they had used the funds saved for operation and maintenance to make significant investments. In 15 percent of cases the schemes had enabled some small investments, for example in crop irrigation, investing accumulated funds in purchase of agricultural produce like sesame, peanuts, sorghum and rice, or livestock, including goats and chickens. In 56 percent of schemes the committees had held discussions and developed plans to address the issue of the long-term financial sustainability of the scheme. Similarly, in 52 percent of schemes there had been some forward planning about what could be done towards capital replacement.

However, there is a long way to go before financial sustainability is embedded in these investments. Overall, many of the answers on the finance questions show evidence of some financial awareness – much more so than many other non-GWI schemes in the area—however, the responses for a significant proportion of schemes are still relatively weak and suggest the need for much greater attention to be given to the issue of building financial sustainability.

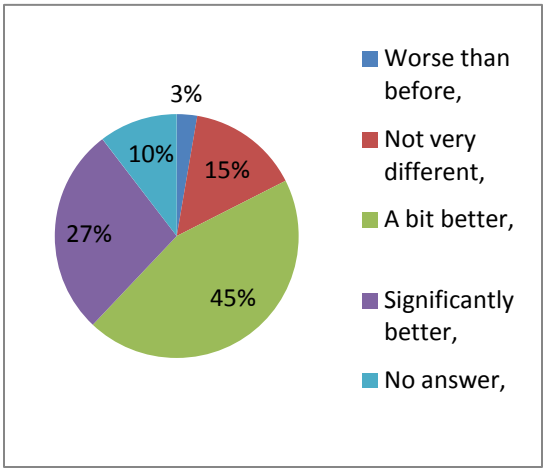
The third area of progress in financing was through introducing and building capacity around community managed savings and

Figure 3: VSLA, Latrines Contribute to Health and Household Harmony in Hedaru, Tanzania

"People say money talks but sometimes there are things that require wisdom rather money," says Grayson Mbwambo, a 38-year-old man with a disability living in Hedaru, Tanzania. "Sometimes you need encouragement to make good decisions on doing great things like construction of a latrine."

GWI supported Mbwambo and other community members in his village to establish a Villages Savings and Loan Association (VSLA) group known as KILEHE (the abbreviation for the name for the group composed mostly by disabled individuals). Mbwambo managed to construct his latrine after breaking the first circle of VSLA (a one year share profit payout period). He obtained Tanzanian Shillings 250,000 (≈USD 160) through his shares which he used to construct a septic tank, paying local masons to construct the latrine. When visited by GWI staff, he commented, "My family is free from cholera... These days my mother has stopped quarrelling with her daughter in-law because the newly constructed latrine has two stances, one with a disabled facility used by my family and another used by my mother. The whole family in now happy and lives in peace."

Figure 4: Financial impact (182 women)



loans associations—Village Savings and Loan Associations (VSLAs) or Savings and Internal Lending Committees (SILCs). VSLA and SILC groups have increased group members' available income—often improving ability to pay water fees or invest in sanitation at the same time. They are important structures for promoting financial and social empowerment, particularly of women, increasing community-driven demand for basic services, and increasing household-level economic resilience to climatic and other livelihood-related shocks. For example, over the past four years, GWI provided support to 40 VSLAs in Tanzania. The approach includes providing training on internal savings and credit lending systems, basic book keeping, and entrepreneurship. Grayson Mbwambo (Figure 3) provides an example of the benefits of the investment in a latrine made possible through involvement in a VSLA.

VSLAs in Tanzania have also proved successful in rolling out kitchen gardens which increase economic resilience of households. The kitchen garden promoted by GWI is a simple technology. Once community members are trained by local masons, the gardens can be easily replicated in the whole community. The design involves stones, ashes and kitchen waste—all raw materials that are locally available in many parts of Same District. The design is environmentally friendly and sustainable due to a simplified superstructure which prevents domestic animals from destroying the vegetables.

The fourth IR under the governance objective was community capacity being enhanced by gender equity and diversity. A gender and diversity aspect was included in all aspects of the program and in response to a request from field partners, the overall regional results framework was amended to ensure that gender and diversity were in practice considered as cross-cutting factors. In terms of measuring impact in this regard, an assessment of 191 women's views from across the four countries was undertaken in 2012. The snapshot is not large enough or random enough to represent the GWI initiative as a whole but it does provide a window of understanding about the effects of the program across the four countries in a way that also allows us to look at the feedback from different categories of women disaggregated by age and position in household, relative wealth and disability, etc. Overall it is clear that many women's lives—irrespective of their particular circumstances—have been transformed through improvements to health (including reduced stress); to livelihoods (including opportunities to become more involved in economic groups), and increased dignity, educational opportunities, personal development, wellbeing and safety.

Eighty percent of the women interviewed felt the program had contributed to greater gender equality (10 percent no response, 9 percent no change and 2 percent giving feedback that it had worsened). Only 69 percent of women, however, felt the program had increased their sense of empowerment (13 percent did not respond, 16 percent said there was no change and 2 percent reported decreases).

The reasons mentioned for improvements to gender equality included the fact that women were elected onto key positions such as being a treasurer; a couple of disabled women commented on the fact that they were elected to key roles on the committee including becoming chairs, despite their

disability; and greater understanding of sanitation and hygiene was said to be empowering and liberating through giving the women a better understanding of why they had become sick and how their vulnerability to some diseases could have been reduced.

My Voice as a Woman

"Through training, my ability to raise my opinion has increased"

"It is better than before as women now get chances to air out their views in village meetings."

"Women are involved in making community decisions."

"Women can now be elected to lead community social groups like the water management committee and their opinions are more considered unlike before the intervention"

"Before GWI the man (head of household) questioned everything in terms of development but currently they are positive on the activities, carried out as a woman"

Similarly, 72 percent of women reported being in an improved financial situation thanks to GWI (see Figure 4). This is further explained in terms of a combination of factors that included: i) the reduced cost of water for those who used to pay more – e.g. a halving of costs for many in Tanzania, for example; ii) having more time for economic activities, e.g. women reporting more time to sell products at the market/kiosk or start new businesses such as selling milk, setting up a bakery selling doughnuts, or being a hotelier; and iii) the changes to household health resulting in fewer costs relating to illness. The situation is however reported as not being any different for 15 percent of the women and 3 percent indicate that it is worse because they now pay for water and previously did not.

Although the data on who reported financial benefits do not generate statistically relevant differences, the issue of involvement in income generation activities (IGA) does suggest that age and position within the household are relevant. The main findings are that female heads of households or wives of heads were more likely to report IGA benefits and younger and older family members and single women less likely to do so. Also, women with no kids were less likely to report IGA benefits than those with older kids.

The issue of increased respect/dignity is also one where some statistically relevant disaggregation of experience that emerges, as it was heads of households rather than elderly relatives, young dependents or other adults in the household who were disproportionately more likely to report this benefit. For example, wives of heads of households were 5.4 times more likely than young dependents of the head of household to report improvements[2].

[2] OR= (1.55, 18.813).

Undoubtedly, GWI increased the capacity of women and others often sidelined traditionally. Nevertheless, in the review women commented that although they felt more skilled to address inequality "it is a challenge to apply those skills." Others commented that age-old customs and traditions do not change just because of a water and sanitation program; social change is hard and takes time.

There are numerous areas in which GWI has invested tremendously in capacity building—hygiene, sanitation and water treatment behaviors, financial management, skilled labor such as constructing toilets and repairing water points and simple yet effective techniques such as constructing kitchen gardens, protecting areas of erosion, etc. Though capacity building, and its effects on values such as confidence, ability to do new things, and inspiration, have not been measured as rigorously as other impacts of the initiative, there is a great deal of anecdotal evidence of the results of capacity building, such as the following.

> *Hussein Farah Ahmed, the Chairman of the Saka Water Resource User Association (WRUA), explains that during an exchange visit to a WRUA in Kitui, he learned the importance of conservation of natural resources. He was also trained on how to develop proposals. Not only was he able to gain knowledge, he was also able to share the knowledge with other community members and make recommendations to the Ewaso Nyiro North Development Authority on the importance of having separate earth pans for livestock and domestic use. Additionally, he was also able to actively participate in the formulation of by-laws to help his community manage its water resources in a sustainable manner.*

Strategic Objective #2: Sustainable Multiple Uses of Water

Strategic Objective #2: Sustained Multiple Uses of Water

Intermediate Result 2.1 – Coverage of Basic Water and Sanitation Systems Increased and Hygiene Behavior Improved
Intermediate Result 2.2 – Water for Productive Use is more Effectively Harnessed and Ownership Increased
Intermediate Result 2.3 – Ability of Local Stakeholders to Manage, Maintain & Rehabilitate Water Systems and Watersheds

From the early days of the initiative, communities and local government identified WASH needs as among the most pressing of the target communities. At baseline, "only a fraction of households meet the minimum WHO standard of 25 liters per person per day (0 percent in Ethiopia, 16 percent in Uganda, 33 percent in Tanzania, 66 percent in Kenya)." In terms of physical access, the baseline noted that, "about half of the households used a safe water point for drinking water and only a third accessed their drinking water within the minimum national standards for physical access (Tanzania - 400, Uganda - 1000, Kenya - 2000 meters). As far as sanitation within the program areas is concerned, the baseline noted that "only modest levels of latrine coverage exist, less than 20 percent of households have improved latrines [and only] a small fraction of household latrines had a hand washing facility near the latrine. Even then, less than 10 percent of the hand washing facilities had water and soap (or ash) at the time of the survey."

Indeed, increasing the numbers of people with access to safe water (with access adapted for multiple uses) and improved sanitation and equipping them with the knowledge to change hygiene behaviors (IR 2.1), have been the most visible achievements of the initiative.

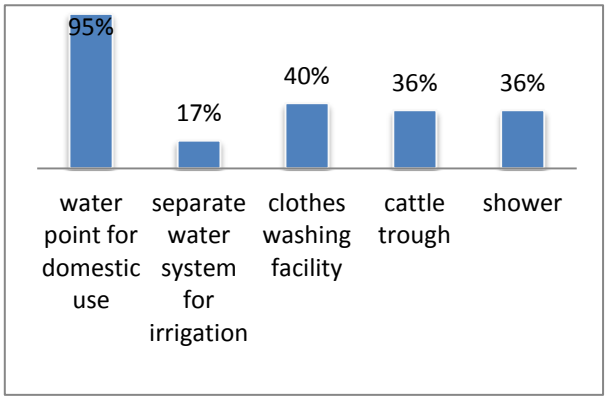
A Ugandan man accesses water using a rope

As of Sept 2012, the initiative had provided 278,451 registered users (plus an additional 28,082 unregistered users) with increased coverage of basic water services. Sanitation coverage had increased for 153,545 households and for 71,290 institutional latrine users, primarily school children, 258,582 registered livestock users (and an additional estimated 27,593 non-registered users) and 6,761 registered irrigation users. The breakdown by country is provided in the table below. As far as types of water technology provided is concerned, most of these were boreholes (31 percent), hand dug wells (22 percent) and spring catchments (18 percent). Other types of technology included surface water, rainwater, and river catchments and earth dams.

Table 2: Results for Objective 2 IRs						
Intermediate Results (IRs)	**(October 2007 – September 2012)**				**Total**	**Remark**
	Ethiopia	**Kenya**	**Tanzania**	**Uganda**		
Coverage of basic water increased	94,323	67,867	68,168	48,093	278,451	Registered domestic water users
	20,755	794	6,500	33	28,082	Non-registered domestic water users
Coverage of Sanitation systems increased & hygiene behavior improved	5,382	11,261	8,330	46,317	71,290	Institutional Beneficiaries
	66,179	25,692	41,340	20,334	153,545	HH Latrine beneficiaries
Water for productive use is more effectively harnessed & ownership increased	156,186	56,438	43,379	2,580	258,583	Registered livestock users
	27,393	-	-	200	27,593	Non-registered livestock users
	3,480	164	634	2,483	6,761	Registered Irrigation users

The primary focus of most of the water schemes was to provide communities with water for domestic use. However, the attention to multiple uses increased over time, as is evidenced by the beneficiary figures above. In terms of the breakdown of what was actually provided in each community, the bar chart in Figure 5 provides a breakdown.

Figure 5: Extent of Multiple Use (n=281 schemes)

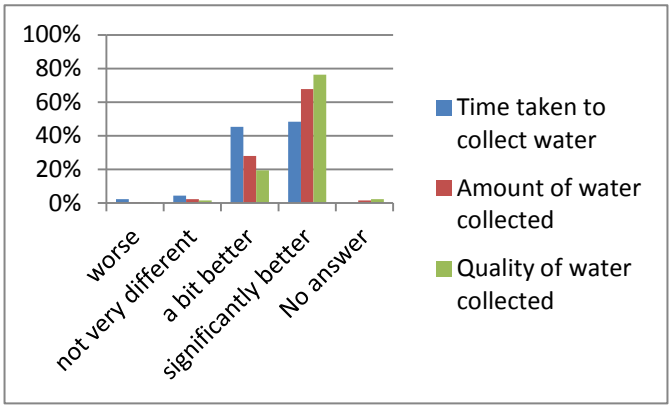


The life-changing repercussions of having safe water and improved sanitation more readily available come up repeatedly in conversations with community participants and monitoring and evaluation tools. Some major areas of impact have been in terms of time taken to fetch water, amount of water and quality of water.

- **Time saved**
  The baseline noted that, "water collection is a labour intensive chore with long distances covered and significant time used for water collection. Adult females still bear the biggest burden in domestic water collection." Reporting on the situation later, Halima, a community member in Tana North District proudly said "……we now have more time to do several more activities, attend to household chores, construct household latrines and work in the farms." In Tanzania, a resident of Digidigi village reported that "the distance to search for water has been reduced from 8 km to 500 m" by GWI. A number of interviewees also expressed that the improved water supply has directly impacted women, and increased the likelihood of long-term socio-economic benefits for women and their families. Discussions with community members in Kenya also revealed anecdotally that

accessibility to safe water for the schools improved school attendance and children did not have to walk to community water points to draw water during school hours.

Figure 6: Time taken, amount of water and water quality changes (n=186 women)



The snapshot assessment of the impact on women's lives provides another window of feedback based on the views of 191 women across the four countries. This is not a statistically large or random enough sample to represent the GWI as a whole but it does provide a flavor of what women were reporting. Time used to collect water had reduced for almost all women and for 48 percent it took half the time it used to take or even less. The benefits in terms of increase in water usage were even greater, with 68 percent reporting a doubling or more of water use, and greater still in terms of water quality improvements with 76 percent recording significant improvements.

A correlation analysis was undertaken to see whether a particular category of women benefitted the most in terms of time, amount or quality of benefits, and none of the different categories of women were significantly more or less likely to report benefits.

- **Safety**
  In Kenya, crocodile attacks have also reduced as River Tana is no longer the only source of water for the community members—as one women put it, "at least I am no longer in fear of being a crocodile's prey." This also has the implication that water can be fetched more than once each day and it is safer for even women and children to collect water during the later hours of the day. In other communities, such as the implementation areas in Northern Uganda which are newly resettled post-conflict, proximity of water-points also means increased security.

- **Community Development**
  The availability of water and improved sanitation has generated community development in a range of ways from increased small-scale one off businesses, to evidence that in Maderte, Kenya, the provision of water to the community attracted one of the communication companies to extend mobile

"I wish I had an opportunity to see the donor… I would give him whatever little I have."

'Bibi' Anna Kimbe- an old Maasai woman born in 1923 in Bagamoyo sub-village in Ruvu Darajani village, Tanzania, is among many women who had to travel several kilometers in search for water. She lives in the semi-arid flood plain of the Pangani River along with her 4 children and 19 grandchildren. Her typical day involves fetching water, collecting firewood, cooking, house construction, milking calves and taking care of children. As a result of GWI's water supply and sanitation initiative in Ruvu Darajani, Bibi Anna is among many women whose lives have been transformed by having access to clean water within 200 m of her household. "Things have changed," she explains. "No one goes hungry because there is no water for cooking; women and children can now fetch water without travelling long distances. In fact people can now bathe more than in the past. With this initiative, we have achieved a lot in our community."

communication services to the area.

- **Economic Empowerment**

Women themselves and other community members believe the burden not only on women but also on children has now dramatically reduced and women's ability to engage in productive activities has increased. Likewise, the majority of households view the impact as allowing for people to engage in socio-economic activities that are anticipated to improve their status in the community. Some of these economic activities have been deliberately structured by the initiative; for example in Ethiopia, GWI supported the formation of SILCS concurrently with promoting natural resource management (NRM) committees. SILC members actively engaged in NRM activities in their communities such as soil and water conservation and tree plantation. This served a dual purpose of protecting and rehabilitating degraded land while also offering alternate sources of income through growing fruit trees and elephant grass (to use for animal feed) on community-managed land enclosures.

- **Health**

There have been significant health benefits as highlighted in the feedback from the human interest stories and Most Significant Change methodology used for the compilation of this report. The diseases related to unsafe access to water and poor sanitation facilities have decreased; in fact the women's experiences snapshot findings were that 95 percent felt the project had resulted in improvements in their health, and 92 percent in improvement for other members of the household.

Tetugu Village Becomes Open-Defecation Free

When a team of three GWI-ACF team members together with the District Health Authority visited Tetugu Village in Uganda, it was ostensibly to "study community behaviors." However, after observing rampant open defecation in this village with only four household latrines, they soon revealed that their agenda was the promotion of CLTS through the methodology's provocative elements of shame and disgust. The Local Council chairperson, from whose compound the faeces for the demonstration were obtained, was very ashamed and rallied other community members to have their latrines constructed. The GWI WASH team, assisted by the Village Health Teams, leaders, and local government health assistants routinely monitored the progress.

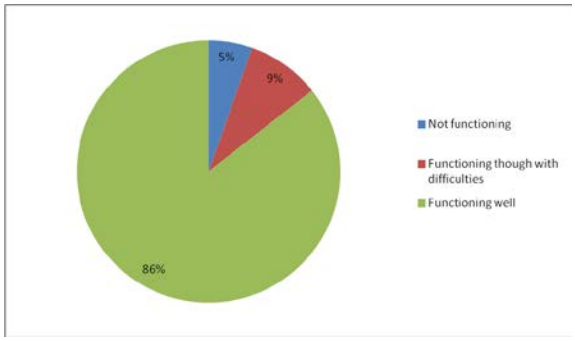
GWI then used participatory approaches for negotiating improved household hygiene and household behaviors through community mobilization and using CLTS tools. The realization of ACF's aspirations came to light when an external monitoring team comprising of district local government and ACF staff visited Tetugu on an Open Defecation Free (ODF) assessment and rewarded the community effort by declaring Tetugu ODF on the October 14, 2011.

A constructed household latrine with hand washing facility (tippy tap) in Tetugu village

As positive as these changes are, a persistent concern is their sustainability. To that end, the program has paid significant attention in recent years to the issue of water point functionality. The overall

functionality status of the schemes (i.e., how many water points were working) in 2012 was reported to be 95 percent although nine percent were functioning with some difficulties and only five percent were not functioning at the time of the snap-shot assessment. Where there was non-functionality, most was for less than one week. In terms of overall quality of service, 97 percent of responses were positive with 68 percent of respondents answering that the scheme had provided good service since it was built and an additional 29 percent responding that there had been interruptions but that the service was generally good.

Figure 7: Current functionality status (278)



Respondents were also asked how confident they were that the schemes would continue functioning for another 12 months. The feedback was that 81 percent were confident, another 17 percent relatively confident and 2 percent not at all confident. They were also asked if the scheme had stopped for financial reasons, and if so how this had been resolved in the last case of problems. In 64 percent of cases it was resolved internally, in six percent by government intervention and in 30 percent by other external agents, i.e. primarily by the NGOs involved. The high result for internal resolution of problems is encouraging.

An area of concern is around training and capacity building where the figures are still relatively weak but improving. Sixty-nine percent in 2012 as opposed to 37 percent in 2011 had received training and respondents thought there was an ability to maintain the scheme if it ceased functioning. Regarding what to do when there were problems with the service, the survey revealed that about 76 percent were confident about whom to contact—low figures given that this is the end of the implementation phase of the initiative.

Overall, the functionality rates reported for the schemes are very high. This is evidence of significant attention by the GWI implementers to ensure high functionality and the provision of some on-going support to resolve problems. The issue of how to sustain high functionality once partners are no longer implementing in the areas is of critical concern going forward. GWI is committed to continuing functionality monitoring with local government, and to wider advocacy on the issue.

As far as the third IR on "ability of local stakeholders to manage, maintain and rehabilitate water systems and watersheds," though progress has depended on existing IWRM legislation and government implementation of it, GWI has done much to buttress the work of local government and local groups. In Tanzania, for example, much of the progress in promoting IWRM has involved strengthening and organizing water user associations according to national water policies that have authorized them as front-line water resource stewards. GWI has strengthened their knowledge and skill sets through familiarizing them with their roles and responsibilities as stipulated by water policy, helping them to apply for operational funding from local government and promoting exchange visits between groups. As IWRM was still a relatively new concept, GWI invested in information dissemination, e.g. translating WUA guidelines into Swahili and using radio to introduce the water resource management and climate change concepts to communities.

In Uganda, through IWRM-related learning visits supported by the initiative, communities participated in developing sub-catchment management plans which eventually were submitted for approval by the

local governments. In some areas, communities engaged in developing and enforcing bylaws. This led to regeneration of wetlands and conservation of the environment.

Strategic Objective #3: Risk Management

GWI communities in the arid and semi arid areas of Eastern Africa are among the world's most affected by climate change. Virtually any gains in the areas of basic access to WASH services, health, and economic empowerment can be eroded by climatic volatility and the long-term degradation of the environmental resource base upon which the program's target communities subsist. The baseline observes that, "overall there are huge limitations in local governments' planning and implementing disaster response plans and early warning initiatives for the commonest water related shocks experienced – drought, floods, and conflicts," and that "most local governments lack trained personnel and budgets for IWRM-related disaster management."

Strategic Objective #3: Risk Management

Intermediate Result 3.1 – Community and local stakeholders' capacity to plan, organize & manage water-related shocks and conflicts have improved

Intermediate Result 3.2 – Risk management initiatives are in place at regional and national levels to address water-related shocks in the context of global climate change.

Intermediate Result 3.3 – Natural resource and IWRM interventions are rehabilitated, managed and maintained.

Though progress in this SO has been slower in gathering momentum than in the previous two and there are more missed opportunities, at close of the implementation phase of the initiative, there are still accomplishments to be celebrated. For example, there are new levels of awareness and capacity around risk reduction in all the focal areas. At community level, this has involved facilitating dialogue regarding the changing climate and its effects on the initiative's target populations, as well as conducting awareness raising and training on water-related conflict resolution (IR 3.1). In all four countries, the initiative has conducted structured vulnerability assessment and mitigation planning exercises through the CVCA and CRiSTAL tools created by CARE and IUCN to initiate community dialogue and risk management regarding climate change. These have identified actions that communities can take to increase their resilience to water-related shocks, many of which the initiative assisted communities to implement. Indeed, with the aid of GWI partners, communities have undertaken large numbers of conservation initiatives such as tree planting, and conservation area enclosures (IR 3.3) (see Table 3). There has been increased activism and dialog around conservation, for example, through getting community leaders to sanction illegal tree cutting (Ethiopia) and increasing cooperation on natural resource use across sub-regional borders in

Doing Away with Water Conflict

'Bibi' Anna Kimbe, an old Maasai woman from Ruvu Darajani village born in 1923, is a member of the Water Committee in Ruvu Darajani. As a member, Bibi Anna participated in conflict management training organized by GWI. "The training has helped me resolve land use conflict between farmers and pastoralists," she says. "Sometimes people consult me to resolve family conflict and gender-based violence. We don't have water conflict in Bagamoyo. We have put in place good water sharing arrangements. When water is not enough every household is allocated 2 buckets of water."

order to reduce conflict (Uganda). In the Dugda district of Ethiopia in particular, there has been an impressive array of natural resource management activities; the GWI formed members of community *iddirs*[3] and School Environment Clubs into Natural Resource Management Committees at the community level. At the *kebele*[4] level, these bodies comprised a wider Natural Resource Management Association. Elected members were trained on key NRM, disaster risk management and climate change issues by local level staff of the Ministry of Agriculture and Rural Development. Together NRM structures took on activities such as enclosures of protected areas, soil conservation activities and planting of seedlings.

Table 3: Conservation initiatives of the life of the project

No of community resource map/environmental conservation plans in place	101
No of active watershed management plans with associated activities and regulations enforced	70
Amount of land enclosed (hectares)	3,138.01
No. of seedlings planted	942,938
No. of community risk plans in place	76
No. of environmental impact assessments completed	33
No. of climate change adaption assessments completed	34
No. of communities in which environmental by-laws are upheld	52

In addition, GWI has used its increasing political capital with local government and sub-catchment-level authorities to raise awareness and increase action on climate change and incorporate risk reduction measures into annual plans (IR 3.1). GWI also provided technical assistance to local authorities through expertise or funding, or both, such as in the areas of data gathering. In Kenya, for example, though the input for preparedness plans comes from the district, their approval and funding comes from the national level. Not much progress has been made in the implementation of preparedness plans. However, with the development of a National Drought Management Strategy, this is set to change. Taking advantage of these developments, GWI provided financial and technical support to local government in implementation areas for environmental risk management initiatives.

These activities at regional level have also given GWI leverage to achieve national-level influence on risk management and IWRM. In Tanzania GWI used its work in creating practical guidelines for WUAs in the Pangani River basin to advocate at national level that these guidelines be adopted within other basins.

[3] Iddir is an informal association of people who share a common interest such as family membership, friendship, residence in the same district, affiliation by employment, and membership in the same ethnic group for the purpose of securing mutual aid and financial assistance under certain conditions.

[4] A kebele is the smallest administrative unit of Ethiopia similar to a ward, a neighbourhood or a localized and delimited group of people.

Tracking Climate Change the Old Way

Notes from Suban Khalif, a GWI Staff Member

On a tranquil mid-morning, we paid a visit to Balich community in Garissa District. During this visit we discussed with community members how they have been able to cope with the effects of climate change. The Balich community understands climate change issues and they told us how for a long time, they have used indigenous knowledge to predict climatic conditions.

"When a prolonged drought is expected, we usually experience strong winds and it is usually very cold during the early morning hours," said Ismail Jari, one of the community members. He continued, saying that when community members see these signs, they store enough pasture for their livestock since they are pastoralists. If they need to store water, they ensure they have enough storage containers and repair any broken ones. A community meeting is called to keep everyone informed of the preparedness measures.

"Sometimes we also check the behavior of trees and plants; the color changes of the leaves and bark and shedding of leaves give us an indication that we are about to experience drought," said Ismail. Community members told us how they are also able to tell from the constellation of the stars and the intense dark clouds that heavy rains are on the way. They then immediately move away from the river banks with their belongings to avoid the effects of flash floods. Balich community members also realize the need for planting trees and of having alternative livelihoods like small scale businesses as measures against extreme climatic change.

We left Balich community with the awareness of the importance of their indigenous knowledge on climate change. This is what we can build on as we assist the Balich community in trying to cope with its effects.

Balich community members

Learning

Learning is a cross-cutting SO within the GWI EA and as such has been a deliberate focus area within the program. There have been several structured events both at regional and national level that have kept a focus on learning on the agenda. For example, GWI EA has had bi-annual regional meetings as a forum for learning/planning across the whole program and has used innovative methodologies such as partnership reviews, knowledge fairs and critical moments timeline creation to promote reflection and peer-to-peer knowledge sharing. At country/field level, partners, led by the national program coordinators, have organized numerous learning and in-country and cross-country exchange visits and partnership reviews. In addition to the copious documentation and data gathering undertaken through the Learning Monitoring and Evaluation framework, at regional and country level, the initiative has also produced further documentation for knowledge sharing, such as the Kenya newsletter, and a series of innovation briefs. There have also been a regional e-bulletin and website to promote cross-country information sharing.

Data from the program's Learning Survey, which has been administered annually or bi-annually since 2008, suggests that this attention has been paying off. Some of the inquiry areas in the 2012 regional survey suggest that learning has become institutionalized and has practical application throughout the initiative's life; these include "New evidence and information are applied to decision-making" (80.9 percent agreed or strongly agreed), "we learn a lot from our monitoring and evaluation tools and processes" (85.7 percent agreed or strongly agreed), and "reflection, examination and critical thinking are built into the way we work'' (88.0 percent agreed or strongly agreed). These results might be attributable in part to the continued and regular rollout of the Learning, Evaluation and Monitoring tools, particularly their application to the proposal design process for GWI Phase II and the data analysis process that preceded it. Learning has also progressed through other activities, including documentation of key events and initiatives, and structured opportunities for learning at face-to-face events, exchange visits and training exercises. In fact, much of the progress seen in recent months might be incremental payoff from a consistent focus on learning since the inception of the partnership.

Some of the lower scores received were on: "we value innovation in theory in practice," and "we reward or recognize those who share knowledge;" however, the results also indicate that the program has advanced in ensuring the recognition of the value of innovation in the learning process.

The incentives and rewards for learning may still be weak and diffused but recognition of those who share knowledge has improved. For example, in Kenya, one of the ways in which staff are recognized is by encouraging partners to submit their stories for publication in the annual GWI newsletter. On average the commitment of partners to continuously seek to improve whatever they do in the partnership has improved significantly. For example, in Tanzania, CRS has installed a wind mill water pumping system in Ruvu through applying lessons generated through a wind mill system in Chankoko installed by CARE in previous years.

Responses to an assessment of whether partners felt they had been effectively learning how to do good programming related to the three strategic objectives were as follows: Good governance (90.4 percent agreed or strongly agreed that they were learning how to do good programming on this objective); Sustainable multiple use of water (92.8 percent agreed or strongly agreed); and Risk management (54 percent agreed or strongly agreed).

The inquiry questions on the LEM tools in particular showed highly favorable results for usefulness: 71.2 percent of respondents rated the tools a 4 or 5 on a 1-5 usefulness scale, with "community feedback and monitoring" receiving the highest percentage (85.4 percent) of usefulness scores, and "baseline IWRM roadmap" receiving the lowest (45.3 percent). This suggests that monitoring and evaluation processes within the partnership were not purely extractive but rather data gathered was of use to staff at field level and that a fairly robust data analysis and usage process has been built into the program.

Learning Lessons, Looking Forward

Over the five-year period, GWI partners learned how to become better at the work laid out in the initiative framework: delivering services to communities; helping governments and local populations create changes that brought to life policies on water; and looking beyond WASH to connect people's health, financial aspirations, and stewardship of water and land. GWI Phase II both validates and looks beyond this work, identifying water for smallholder agriculture as one of the most critical areas for development intervention in East Africa. There has also been an evolution in the initiative's approach with emphasis now placed on influencing key decisions and decicion-making contexts, rather than on delivering services. Developing evidence jointly with key decision making constituencies through Learning and Practice Alliances that bring together policymakers, practitioners, and researchers is the central methodology in Phase II. Reflected below are some key lessons from the first Phase that are very relevant for the future as the program goes forward.

- **Understanding the complexities and limitations of promoting equal voice –** Good development processes require strong participatory approaches which encourage ownership and thereby ensure appropriate solutions and sustainable transformation. However, organizations and communities are inherently unequal and what works well for some might not work well for all.[5] At another level, when GWI partner staff came into a community to discuss support, there was already an inequality in place with community representatives looking up to the more educated, often more wealthy 'visitors'. Consciously or subconsciously the same applies in the other direction with field staff feeling more knowledgeable and that they have the 'right' solutions. The same hierarchy also appears to operate within communities (e.g. the lack of women's representation) and within organizations[6]. All this is further complicated by the relationship between citizens and local government. Occasionally, government is held accountable to its citizens (e.g. when it comes to voting). However, most often government officials are feared by communities. Community members want to stay on good terms with their governments to ensure receipt of services and to avoid incurring the displeasure of powerful people. Add to this other layers such as who is more articulate, more liked, and from what cultural, religious, age and gender background and it is no wonder that real participatory processes are difficult to achieve. Understanding these nuances and applying methods that help surface and create discussion around these power dynamics should be explored in the future.

[5] For example, traditional water management committees in Borana, Ethiopia have functioned effectively for hundreds of years – but they are fundamentally unequal in terms of having no female representation on the committees and therefore the priority is given to livestock needs and solutions to easing the burden on women is not high on the agenda.

[6] For example, the voice of field staff is often not as strong as those higher up within their respective organization.

- **Managing Collaboration –** The multi-agency implementation model is complex and challenging, given the varying organizational policies and procedures among the different partners. It requires flexibility and patience among all those involved and the process should be adequately supported during the early years of implementation. Ambitious targets and results were expected from the partners in the first two years of the program which contradicted the reality of delivering complex programs. Partners initially struggled to understand IWRM, to work together and even to understand new approaches beyond their comfort zone. Even though the next phase of the GWI will require a looser collaborative relationship across a different set of actor-stakeholders rather than a fixed consortium, the lesson is applicable that the building of relationships—even those considered operational to the initiative-- is in itself an activity that must be adequately planned for and managed.

- **Sustained Community Empowerment and Multi-Stakeholder Engagement** – The GWI partners increasingly employed more participatory methods of engagement with local governments and promoted greater levels of inclusion across a larger cross-section of the communities. This was a time consuming process which took longer than desired (and planned) and was a cause of frustration to many who just wanted to get on with the implementation phase. However, the additional time investment (in many cases) was crucial and led to greater commitment, operational support and more than symbolic co-investment in WASH (especially in sanitation and hygiene) as well as IWRM interventions through contributions from communities and local government. The lesson and challenge for GWI going forward will be to build on this by ensuring the adequate skill sets and mindsets for a persuasive rather than directive process of accomplishing change through influencing and facilitating the efforts of others. For example, it could include capacity strengthening to WUAs and getting them involved in breaking up barriers between the water and agricultural sectors.

- **Managing the balance of SOs.** Given the complexity of the program and the diversity of activities under each SO, as well as partners' relative strengths in WASH programming and lesser experience with the governance and risk management components under each of the various objectives, it is perhaps not surprising that SO2 tended to dominate in comparison with the other SOs. This was exacerbated by the fact that, as mentioned earlier, local governments and communities tended to request the "hardware" components of WASH service provision, as opposed to the "software" related skills building and governance-related components. Nonetheless, partners could have done more to manage this dilemma. For example, staff conceded during reflection exercises that in the way they were implemented, the Quick Starts, which were the prior one to two years of ramp-up programming at the start of Phase I, were a bit of a diversion as they allowed partners to stay in their WASH programming comfort zone. Partners could also have done more to hire the right types of expertise to ensure more sure-footed progress and learning in the governance, multiple use and environmental protection components and, overall, hasten the transition from a WASH to an IWRM approach.

To help ensure that the learning and experience from Phase I are carried into the subsequent phase and that there is a 10-year picture of outcomes, the initiative will carry out four main activities. The first is to continue the collection and analysis of data on GWI Phase I, primarily using the Learning, Monitoring and Evaluation tools developed to monitor progress against the three objectives: 1) governance; 2) multiple uses of water, and 3) resilience. This process is underway with a comprehensive data collection

effort informing the writing of this report and a subsequent interactive online presentation. A series of policy briefs highlighting major findings from the analysis is also planned.

The second activity is to continue the strong focus on monitoring and better understanding the factors that contribute to sustainability of water schemes, particularly the possible link between good governance and functionality. Good governance is a critical, necessary, but not sufficient criterion for functionality, and understanding where and why functionality rates fall will continue to be a key issue for GWI Phase II. CARE will, therefore, carry on with the monitoring of all 298 water systems (148 in Uganda; 33 in Kenya; 20 in Tanzania; and 97 in Ethiopia), primarily using the functionality and governance tool developed during GWI Phase I. This comprehensive tool will provide the opportunity for rich, longitudinal, cross-country data. Furthermore, although many of the schemes are primarily for domestic use, the findings are directly relevant to the issue of the management of water schemes for agriculture. In addition, continued monitoring visits at this level within the districts and communities in which GWI Phase I worked ensures a longitudinal relationship on the ground which will be important for GWI Phase Ii. The LPAs and other platforms and networks of GWI Phase II will be an avenue for future dissemination of findings and ongoing influencing.

GWI EA piloted the use of two tools in Phase I - CRiSTAL, developed by IUCN, and CVCA, developed by CARE—to help communities discuss and be better prepared for climate change. The tools are a form of capacity building – they provide a step by step process, based on participatory approaches, to assessing and then limiting the potential risks to livelihoods. Both CRiSTAL and CVCA continue to be used widely by the respective organizations and others. In the second phase, GWI EA plans to return to the sites in which the assessments were done to develop with the communities a process for follow up which, in turn, can then be used on an ongoing basis by communities, local governments and NGOs. Learning from this process would feed directly into advocacy work around smarter and more resilient investments in marginal environments.

The fourth activity is to undertake an external impact assessment. Assessments many years after implementation are rarely undertaken; even rarer is an opportunity to directly apply the learning within follow-on work. In its first phase the GWI had a rich and eventful record of implementation over a five-year period in four countries. Evidence of short-term impact has been abundant and forthcoming from key stakeholders—whether the communities that GWI partner staff worked with, or the local governments with whom they built mutually beneficial relationships, or the program staff themselves who are to be credited for producing good work under often difficult conditions. Whether the work was innovative enough, creative enough or effective enough can be debated and long-term impacts remain to be seen; however, a vigorous ongoing effort at monitoring and evaluation provides some level of confidence that GWI EA has brought about positive changes and created a reliable foundation for future work.

Given the unpredictability with which change can unfold over time, planning an external assessment for a later date will provide a better appraisal of impact in areas such as the leverage generated by capacity building of community groups and local government, the extent to which community monitors continue to operate, and changes to the relationships between government and local communities. It will also help ensure that GWI stays true to its commitment to constantly learn and to set ambitious goals for water's contribution to development.

It is envisaged that the Learning and Practice Alliances, established at local district level, will play an important role in supporting longer-term monitoring objectives. The relationships that are built within these LPAs can assist in bridging knowledge gaps on what has worked to achieve sustainability in different contexts and how these approaches can support the new directions of GWI Phase II.