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Building the Capacity of Village Communities to Manage the Provision of Clean Drinking Water: Lessons from Kyrgyzstan

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1. Introduction

Much has been written on building the capacity of community based organisations (CBOs) to make them more effective and sustainable. A great deal of this is fairly general; some is written in manual or toolbox form, while some is more practically oriented and experientially based. However, there is a lack of literature on capacity building of CBOs that are providing water services in rural areas.

This note looks at how a Community Development Team built the capacity of rural Kyrgyz villages to help construct and then manage their own clean water drinking systems. It explores the methods used, problems and issues encountered, the lessons learnt and conclusions.

In much of the world, rural communities still lack access to clean drinking water. This leads to illness from drinking dirty water and a high incidence of waterborne diseases. It is the children who suffer the most and also their mothers who have to look after them.

Access to clean water is said to be a fundamental human right.¹ Often it is considered that governments are responsible for providing water. This attitude is particularly pervasive in previously socialist countries like those which made up the former Soviet Union. But in many rural areas of poorer nations

in Africa and Central Asia today, governments neither have the resources nor, sometimes, the motivation to provide and manage this.

Is there an alternative? Can rural people and their communities address their lack of clean drinking water and manage its provision themselves? If so, can this be also scaled up to involve more than just the usual handful of villages? This brief paper looks at the experience of 200 villages in northern Kyrgyzstan. The villages rehabilitated their water systems between 2002-08 with financial and technical assistance from DFID and the World Bank. INTRAC supported a local team of Community Development (CD) workers, recruited from NGOs to build the capacity of these villages to operate and manage their water systems.

2. What was done

The CD Team used a process-based approach to capacity building, consisting of several stages and different elements that were implemented over 12-18 months. The most important were:

- 1) Raising awareness and mobilising communities
- 2) Creating Community Drinking Water Users Unions (CDWUUs)
- 3) Delivering practical training and support
- 4) Encouraging peer learning
- 5) Involving local partners

Each of these is explored in greater detail below.

¹ UN News Centre, 28 July 2010, 'General Assembly declares access to clean water and sanitation is a human right', www.un.org/apps/news/story.asp?NewsID=35456&Cr=sanitation&Cr1

2.1 Raising awareness and mobilising communities

The first step for the CD Team was to raise awareness in villages about the opportunity to rehabilitate their water systems, and then to assist those who were interested to mobilise themselves.

In the past, village water systems were run by the Kyrgyz government. This ended with the collapse of the Soviet Union in 1991. Unfortunately, the villagers had no knowledge about how to manage and run them. As a result, they fell in to disrepair and stopped operating.

Awareness raising was undertaken in workshops held by the CD Team with three distinct groups of people in each village: men, women and young people. These were done separately (usually in one of the village school classrooms) to ensure as wide a participation as possible and also to ensure different voices (especially those of women) could be heard.

The workshops used a variety of participatory rural appraisal (PRA) exercises to help the groups to identify major village issues, the extent to which access to clean water was a problem and the willingness of the population to address it. The exercises that worked best included: getting each group to list and prioritise problems faced by the village; identifying and discussing action taken in the past by the village to address these; and, if the lack of clean water was major problem, getting them to draw a water Problem Tree (to identify the causes and consequences of the water problem). This participatory approach helped villagers to overcome initial suspicions about the project and to voice their views and opinions.

Villages which had severe water problems and showed a clear interest in addressing them were selected to participate in the DFID/WB project and assisted to mobilise the entire village. Initial mobilisation was done to help the village raise their 5% cash contribution towards the cost of

rehabilitating their water system. The CD workers found that the most effective and efficient way to do this was by village quarter (neighbourhood) and/or clan (often people in the village are from different clans). Getting people from each clan to collect the contribution from households or clans worked well. Contributing towards the cost of the water system was one way of encouraging a sense of ownership by the village. This was vital to determining the long-term sustainability of the water system.

2.2 Creating Community Drinking Water Users Unions (CDWUUs)

Each village created a Community Drinking Water Users Union (CDWUU) to operate and manage the water system. The CDWUU is membership organisation comprised of all village households. The CDWUUs were created at General Meetings attended by representatives from each village quarter. At this meeting, they also elected the Chair and other members of the CDWUU Board.



The Community Development Team assisted the village to organise the General Meeting and subsequently helped the CDWUU register with the government.

2.3 Practical training and support

CDWUU board members and staff were given training in the following eight key areas by the CD Team. The training was spread over 6-9 months and consisted of one to two sessions per module:

- Structure, Role, Responsibilities, and Organisation of the CDWUU
- Financial Management 1 (focussing on construction phase)
- CDWUU's Role in Tendering and Procurement
- Mobilising the Village 15% In-Kind Contribution to Construction
- Financial Management 2 (focusing on operating stage)
- Water Quality and Hygiene
- Technical Operation and Management of Water System
- Managing for Sustainability

Training modules were piloted in one or two villages before being rolled out to all the participating villages. Feedback showed it was necessary to keep the training simple, focussed on the basics and practically oriented. The training sessions were short (maximum half a day) as CDWUU board members, most of whom were farmers, faced other demands, particularly looking after their crops.

The participatory training approach worked best, although at times, especially when imparting key information, a more formal style of training was used. The scheduling of the training was tailored to the needs and stages each CDWUU was at (the newly formed CDWUUs starting with the first modules, while those who had finished construction of the water system would be doing the last ones). Training was followed up by support and advice from the CD Team.

2.4 Encouraging peer learning

Initially, training and support was given to each CDWUU individually. But as the number of CDWUUs increased, it was found to be more efficient to train them in

groups. Some of the better established CDWUUs were also invited to participate. They shared their own experiences in rehabilitating and running their water systems. This peer sharing enabled the newer CDWUUs to learn from the first-hand experience of the more established CDWUUs. Some of the newer CDWUUs spontaneously visited established CDWUUs to learn more about what they had done.



Peer learning proved particularly useful and effective in helping new CDWUUs address practical problems. The new CDWUUs were able to relate to people's personal experiences of issues such as: how to deal with contractors (who were hired to rehabilitate the water system); how to mobilise villagers to help with the rehabilitation work; and, once the water system was completed, how to organise the collection of monthly household payments for the water.

Once several CDWUUs were established in a region, some of them started forming networks. These networks were largely informal, but nevertheless proved an effective means for CDWUUs to share information and experience.

2.5 Involving local partners

The CD Team also encouraged each CDWUU to identify and build relations with local partners who could assist and support them. The success of the project rested on getting the support of people who held influence in the local areas as well as higher up in Government. This included: the mayor (the Ayl Okmatu who had influence, authority and contacts with

government departments); the village school (a good channel to communicate with parents about the water system and also to promote good hygiene and sanitation practices by its pupils); the Aksakals (traditional leaders) and the Aksakals Court (who could deal with households failing to pay for water); and the county Rural Water Department (to provide technical support).

Involving local partners contributed to ensuring ownership and sustainability. It helped make the project less of an external donor-led project and more a community led initiative.

3. Challenges encountered

During the capacity building of villages and the CDWUU, the CD Team encountered a range of issues and problems. Through addressing these issues, the CD Team learnt a number of valuable lessons. This section explores some of the most difficult problems that were encountered, how these were addressed and what was learnt during the process.

3.1 Passivity of villagers

As one old woman said, under the old Soviet system, “we were told what to do, when to do it, and how to do it”. People did not take the initiative. This passive mentality was initially very hard to change. It was further exacerbated by recent past experience. Many villages had been told by the government that if they collected money their water systems would be fixed. Yet when the money was collected and handed over to the government nothing happened.

Listening to and respecting the voices of villagers

The intensive awareness raising done by the CD Team and the use of PRA exercises began to change attitudes. The PRA exercises were particularly useful for encouraging active participation by the villagers. For example, constructing the

village Water Problem Tree enabled them to identify the causes and consequences of their water situation. Villagers were able to voice their opinions, be listened to and have their ideas taken seriously. As one Aksakal said, “no one ever asked before what we thought”. People began to feel respected and empowered to address the issues themselves.

Evidence of success

Once the first few water systems had been rehabilitated and started to provide clean water, attitudes in neighbouring villages started to change rapidly. People could see that the project worked. They could see the benefits and more villages wanted to be involved.

3.2 Political influence and interference from politicians

Local politicians (Members of Parliament and others) tended to try to influence the selection of villages to rehabilitate their water systems. The choice of the first twelve ‘pilot’ villages was largely made by local politicians. One was the home village of the then President’s wife. Several of these villages did not have a particularly severe water problem (often households had wells in their backyards). The processes had not been participatory and villagers had neither been consulted nor involved in the process.

This had a direct effect on the immediate success of the project in these villages. Community mobilisation in many of these villages was slow and protracted. The 5% contribution took months and sometimes over a year to raise. Participation by the community in the rehabilitation of the water system was poor, as was participation of the CDWUU in the capacity building training sessions. Eventually many of these completed water systems were poorly managed and maintained. Some were broken within a year.

The need for clear transparent selection criteria

To tackle this problem, the CD Team suggested that four selection criteria be adopted when deciding which villages to include in the project. These were:

- 1) The level of need for clean water
- 2) The willingness of the community to be involved and take over the operation and management of the water system
- 3) The technical feasibility
- 4) Cost of constructing the water system (the donors limited it to \$50/villager though this was later raised to \$75).

These criteria were adopted by the project's Selection Committee which included project's management team, the Rural Water Department and DFID. Villages were scored on each criterion and the results were presented to this committee. The adoption of this process helped to minimise political influence and interference in selection, though it never entirely eliminated it.

This was an important learning for the project team. Time and resources could have been saved and spent on villages that were in a greater need if the selection criteria had been in place at the very start of the project.

3.3 Management of the CDWUUs

Three major issues emerged during the creation of the CDWUUs and the building of their capacity.

Performance management

Firstly, in several cases, the CDWUU Chair selected by the villagers proved to be ineffective, and in certain instances, corrupt. Here, the CD Team encouraged the rest of the CDWUU board to assess the performance of their Chair, and if necessary, replace them. In difficult situations, they were encouraged to get

the support of the mayor (Aiyl Okmatu) to resolve the issue.

Creative problem solving

A second problem was the high turnover of certain key CDWUU staff, especially the bookkeeper/accountant. Once trained, many of them were attracted to higher paid jobs elsewhere. To counter this, CDWUUs were encouraged to share their bookkeeper/accountant. This increased their salaries (most were part-time) and as a result, turnover fell.

Decentralised management

Lastly, in many cases, the size and scale of the CDWUU's job to run, maintain, and manage the village water system (some of which served 5,000 inhabitants), proved greater and more time-consuming task than the CDWUU board had imagined. To tackle this problem, the CD worker encouraged the village to decentralise management of the water systems in the following way.

Households around the communal tap stands (there were approximately one or two taps in each street) were asked to form 'Tap Stand Committees' and choose two Tap Stand Leaders. These Committees were given responsibility for managing and looking after their tap stand. This extended the spread of responsibility for looking after the water system to the wider village. It also reduced the workload of the CDWUU significantly.

As a result, the tap stands were generally better cared for. The households using the tap stand had a direct interest in keeping it in good condition, discouraging the children from playing with it and keeping livestock away. If it broke down, they would be the ones who suffered.

Subsequently, several CDWUUs also decided to ask these committees with collecting their area's monthly household water payments. This tended to improve tariff collection rates since the Tap Stand Leaders personally knew all the household using the tap stand.

3.4 Different agendas

In several instances, it emerged that some of the CDWUU's partners had their own agendas which were not necessarily constructive or helpful. A minority of Aiyl Okmatu wanted to take over the water system and run it themselves, despite lacking the technical know how and capacity. Some members of the Rural Water Department were not particularly helpful. These were older civil servants who had worked under the Soviet system and did not believe that rural communities could or should run their own water systems.

Involving partners

As noted earlier, efforts were made to involve project partners right from the start. Progressive Aiyl Okmatu were encouraged to share their experiences of the project in their villages with other Aiyl Okmatu. However, certain attitudes proved hard to change. Some Aiyl Okmatu still wanted to own and control all activities in their villages, rather than playing a facilitating and enabling role.

3.5 Overcoming resistance to women's participation

Rural Kyrgyzstan is still largely a male-dominated traditional society. Most formal responsibility and power is in the hands of men. In many respects, women are treated as second-class citizens, yet they are the ones most affected by the presence or absence of clean water in the village. It was essential that women were involved in the project. However, this was an ongoing struggle and most of the CDWUU chairs initially selected by villages were men.

Actively planning for women's involvement

The CD workers took a several steps to try to tackle this imbalance. These included:

- Ensuring women's voices were heard from the outset by

consulting them separately during the raising awareness stage.

- Actively involving the women in the community mobilisation stage. Usually, it was the women who ensured their household paid its contribution towards the cost of rehabilitating the water system.
- Setting quotas: the CD Team insisted that at least one of the two leaders of the Tap Stand Committee was a woman.
- Showcasing successful CDWUUs with a female chair, and getting them to share their experiences at training sessions held with other CDWUUs.



During the course of the six-year long project, the number of women in key positions in the CDWUUs (e.g. chair and board members) rose. However, by the end of the project, the number was still quite modest. Significantly, over half of the Community Mobilisers were women. It is possible that these women who were visible in the communities served as strong role models for other women.

3.6 Sustainability of the water system

The sustainability of the water system proved to be largely dependent on two major factors: the willingness of villagers to pay for water; and the motivation and ability of the CDWUU to provide a reliable supply of clean water to the village. Both factors are interrelated. Without revenue from water payments, the CDWUU cannot afford to pay its staff to run and maintain the water system. Without a regular supply

of clean water, most villagers are unlikely to want to pay for water.

Initially, getting villagers to agree to pay for water was difficult. During the Soviet era water was free. Also most village households are poor. Their main source of income is from harvesting their agricultural crops which often depends on factors beyond their control (the weather, the market) and only happens once a year.

The CD Team took three steps to address this problem:

Examining the importance of monthly charges

Upon completion of the water system, Water Tariff Payment workshops were held with the CDWUUs, its partners and Tap Stand Committee leaders. These focussed on raising awareness about the importance for each household to pay its monthly water charge regularly. The consequences of villagers not paying were examined in detail (lack of money to pay CDWUU staff leading to poor maintenance, followed by problems with the water system, its eventual collapse, no clean water, and a return to high levels of illness and sickness that would affect village children in particular).

Using the decentralised Tap Stand Committees to collect payments

The CDWUUs were encouraged to make Tap Stand Committees responsible for collecting the monthly water charge from their households, and to collect back payments from households after the harvest, when people had money.

Using local structures to support payment

Gaining the support of the local legal structures – the Aksakal's court and the Aiy! Okmatu – was essential as they could support the CDWUUs in dealing with regular non-payers. The Aksakal's court is a traditional body responsible for adjudicating on many village matters. The Aiy! Okmatu, appointed by the

government, wield considerable power, influence and authority in their villages. They sometimes withheld permits (e.g. to travel) from non-payers, but more usually helped to negotiate a repayment agreement between the non-payer and the CDWUU.

3.7 Legal ownership of the water system

Under the old Soviet system, all infrastructure was state-owned. Despite concerted efforts, a new law to give CDWUUs ownership still had not been passed by the end of the project in 2009. The danger is that this could undermine the continued willingness of the CDWUUs to look after this vital piece of village infrastructure, and so compromise the longer term sustainability of the water system. It remains to be seen over the longer term whether this will have any negative impact on the success of the project and how this will be dealt with.

4. Project sustainability

During the course of the project, the sustainability of the CDWUUs was regularly monitored. Sustainability was assessed in three areas: organisational, economic, and institutional. Several indicators were established to measure each of these. Initially, the monitoring was done by the project management team. Later, CDWUUs were encouraged to self-monitor as a way of assessing their own performance and identifying areas to improve.

A final assessment, conducted just before the project ended, concluded that 46% of CDWUUs were sustainable, 37% would be sustainable if given further support, and 17% were unlikely to be sustainable. While these figures may appear modest, it should be remembered that these villages had lived under a communist regime, which up to 1991 provided all services for many decades. Villagers were not used to managing their own infrastructure development. In addition, nearly 20% of

the villages involved in the project only completed construction of their water system in the final year of the project so were relatively inexperienced in running their CDWUU and water systems.

In contrast, some of the better established and more experienced CDWUUs had, by the end of the project, already improved and expanded their water systems. They are now working increasingly closely with their local partners and their tariff collection rates continue to improve, as shown in the case study below. However, some still experience problems such as recent hikes in electricity prices to run borehole pumps.

Akchi CDWUU in Ak Su Rayon (near the Chinese border)

“Our village has 260 households and a population of just over 1,100 people. We started building our water system with the project in September 2006 and completed it in July 2007. The water source is a borehole which provides water to 53 communal tap stands. The CDWUU has a room in the Aiyl Okmatu’s building. We made our furniture from thrown away materials. We have five staff members.

“We have a good relationship with the village school who do awareness-raising activities with the children about not playing with or damaging the tap stands. SES (the government authority responsible for monitoring water quality) tests the water regularly.

“Our tariff collection rate has increased to 70% and is still improving. We give everyone a receipt and keep records that all can see. The Aiyl Okmatu has helped us deal with non-payers which has increased our ability to collect the tariffs. We are now extending the water system to some parts of the village that are currently not adequately served. However, we have a challenge in that the increased price of electricity is raising our costs.”

5. Lessons learnt

This project was unique in many ways. It was the first time in recent history since the Soviet era that villagers had the opportunity to take control of their local infrastructure development, in this case desperately needed water systems. The project challenged some entrenched views such as women’s involvement and the undue influence of some local politicians. When the project encountered unforeseen challenges, the project team and its partners, including the local communities, worked together to find and implement solutions. Sometimes this involved a certain amount of trial and error before the best solution was arrived at. This section focuses on the main lessons that were learnt during the implementation of the project. These are grouped as: lessons learnt about planning a capacity building intervention; capacity building methods; and capacity building for project management by the community.

Planning a capacity building intervention

- To be successful, capacity building must be treated as a planned process implemented over time which involves several different complementary stages, each with its own elements (as opposed to just one-off training sessions).
- It is vital that the preparatory stages of capacity building such as raising awareness, selecting the villages and creating the village organisation (in this case the CDWUU) are done properly. Otherwise the subsequent stages will be undermined (e.g. the experience with the pilot villages detailed in section 3.2 above).
- Involvement of women in community management of village water systems is essential. In this case, they are the ones most directly affected by the presence or absence of clean water. In an impact study conducted towards the end of the project, women cited the main impacts of the water system

for them were: their children having less stomach-related diseases and illnesses, more water to cook, wash and clean with, and their lives being made easier. Unfortunately, in traditional rural societies such as in Kyrgyzstan, there still may be barriers to women's participation. It is important to find and plan practical ways to encourage women's participation, to build their capacity and their confidence to voice their views and ideas (see section 3.5 above).

Capacity building methods

- A variety of methods should be used. PRA exercises are useful for raising awareness and stimulating participation. Training sessions should be practically orientated, short and focussed on the basics.
- Peer learning is a simple, powerful and successful way for rural people (in this case, CDWUU Board and staff) to share their experiences and learning with each other. Some CDWUUs are already networking in this way and, in time, more networks may emerge and continue this process. It is vital that these networks are initiated by the CDWUU themselves and not imposed top down, otherwise they will not last.

Capacity building for project management by the community

- The purpose of the capacity building must be clear. In this case it was not just to help the village acquire the skills and expertise to operate and maintain their water system. The aim of the capacity building work was also to create a strong sense of village ownership of the water system that would continue even after the end of the project.
- Operating and managing water systems in larger villages (over 1,000 inhabitants) can involve considerable time and organisation. It is important to encourage the community organisation in charge to decentralise management

and responsibility (e.g. by setting up Tap Stand Committees to look after each communal stand pipe).

- Encouraging support from local partners is also important and helps to strengthen the capacity of village water institutions such as the CDWUU. However, as noted in the experience of the pilot villages, some local partners and officials may have hidden agendas.
- Successful capacity building is essential for community managed water systems to be sustainable. Experience from Kyrgyzstan show that CDWUUs have a better chance of being sustainable than many other village community based organisations for several reasons:
 - They have a regular source of income in the form of monthly household water payments
 - The provision of clean water brings real tangible benefits to everyone in the village (women, men, children, old, young), not just one or some small groups
 - In the case of these villages, they suffered for 15 years from the effects of lack of clean water (disease, illness, etc). This experience is still vivid in villager's minds and contributed to a high motivation to do something about it.

6. Conclusion

The experience in Kyrgyzstan shows that many rural villages can manage their drinking water systems in regions where government has neither the money nor capacity to do this. By providing their own clean water, they are able to improve their livelihoods in a real and meaningful way, especially those of their children. Through this project, nearly 200,000 people are now drinking safe, clean water. Without the project and the creation of the CDWUUs they would still be drinking dirty

water, and suffering from the consequences.

The size of the project, which involved 200 villages, and the results obtained from the evaluation demonstrate that a community based approach to solving drinking water problems can be successfully scaled up. Success is dependent as much on the attention given to mobilisation and capacity building of the community as the other technical components (e.g. engineering and construction) of the project.



If done well, the mobilisation and capacity building can create a strong sense of community ownership of the water system, provide the knowledge to operate and maintain it and ensure it continues to operate for many years. This can lead to other positive spinoffs. The impact study conducted at the end of the project showed increased participation of the villages in local governance, with more being elected to the Ayil Knesh (regional government) than previously. Most importantly, it also builds the confidence of the community and makes them realise that if they work together, they can make their lives better. Several have gone on to do other community based initiatives.

Community capacity building is not without its challenges and issues. A good proportion of the CDWUUs involved in this project are strong, well organised, well run and sustainable. However, some are weaker and may not survive. There are also a group of CDWUUs who are showing significant potential to succeed, and who would benefit from further support. It is hoped that as the CDWUUs

take this project on into the future, the peer learning and networking will support the weaker CDWUUs to develop successfully.

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