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INTEGRATED DEVELOPMENT FOR WATER SUPPLY AND SANITATION

Water schemes for social development

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DURING THE WATER decade of 1980-90, water programs evolved from purely engineering solutions through to more integrated approaches, encompassing health, community management, livelihood improvement, and social development aims. With rapidly improving participatory methodologies in the nearly 1990s, it has become even more possible and necessary to design water projects not in terms of specific technologies or prearranged management systems, but in terms of a process of dialogue between project implementors, residents, government, and other stakeholders. In this sense, we see water programs as being increasingly shaped by social development methods and objectives. Particularly prominent are issues related to the empowerment of the poor and marginalized.

Since 1992, CARE International has been working in peri-urban settlements in Zambia, in a variety of mutually-reinforcing project interventions, such as infrastructure improvements and micro-finance. This paper explores one particular experience, the establishment of a community-managed water supply scheme in Chipata compound, an unplanned, low income settlement of 45,000 residents on the northern outskirts of the capital, Lusaka. Through this case, we wish to outline some of the key methods used to empower residents to manage water projects, and reflect particularly on the challenges of community institution building and the complex institutional linkages in an urban setting.

The Chipata compound water supply system

CARE International began operating in Chipata in 1992, in a food-for-work project, funded by World Food Programme (WFP) and the Canadian International Development Agency (CIDA), implementing road and drainage rehabilitation and sanitation, pre-schools, literacy and health education projects. In 1994, a second phase of PUSH began, funded by the British Department for International Development (DFID), to transform the food-for-work program to one where participants (mostly women) have an opportunity to graduate into sustainable livelihoods through training, savings and credit programs. The scale of impact was also increased by broadening the basis of community participation and institution-building, and by undertaking larger, and more sustainable social and infrastructure projects for livelihood improvement.

Chipata Compound, like many other compounds in Lusaka, suffered from a severe shortage of water. It was noted that water facilities that had been installed during the 1970's had deteriorated to such an extent that supply was intermittent or non-existent. Thus, when an extensive participatory appraisal and needs assessment (PANA) exercise was undertaken by residents and PUSH staff in late 1994, Chipata residents clearly identified water system improvement as their top priority.

Thus, in mid-1995, a group of residents, Lusaka City Council officials and PUSH began planning a process that would mobilise wide participation and lead towards the implementation of a new water supply system. From the beginning, the concept was that local residents would manage the water system operation and maintenance, including its financial management.

The now completed water system is wholly owned by the Residents' Development Committee (RDC) in the name of the residents of Chipata, with support from Lusaka City Council. The completed project involved extensive contributions from the community based organisations in terms of organising and educating residents, as well as contributing to the design, construction, operations and maintenance. For example, decisions about the placement and design of the communal water points, and the residents monthly fees and capital contributions and hours of operation of taps were taken by community based organisations.

The completed water system abstracts groundwater from a borehole located to the north of the compound. Water is stored in ground and overhead tanks and reticulated to 40 communal taps by gravity. The capital equipment was installed at a cost of US$650,000. The level of service was designed to allow each resident to increase water consumption beyond pre-project levels to 25 litres per day initially through a quota system, to be expanded to at 35 litres per day. The scheme will eventually allow differential consumption/paying levels for larger families.

In terms of finance, the scheme has been operating for two years, covering its own costs of electricity, chemicals, and paying the salaries of 48 employees. It has accumulated some 15 thousand dollars for capital replacement costs. While there are difficulties in the community managed financial system, with strong support from the Council and CARE, these difficulties are gradually being ironed out.

There are a number of questions that are commonly asked about this community managed water scheme, and it would be beyond the scope of this paper to answer them all. What we will focus on, is on the process of institution building.

Outline of institution building approach

Participatory appraisal

As mentioned above, CARE only became involved in a water project when it became clear this was the priority of residents. The critical question here was, which residents had the opportunity to state their priorities, and what circumstances? A series of participatory learning activities (PLA) and Training for Transformation methods were used, such as popular theater, focus group discussions and problem ranking, open-ended "livelihood interviews", and a " listening survey". This participatory appraisal and needs assessment was biased towards the poor and the women, and was not in any way leading residents towards a water project: there was in fact no plan nor budget for water project at that point.

Water project as a mobilizing vehicle for capacity building

In Chipata Compound water was seen as a 'mobilising issue' that would generate enough interest to allow the development of community level capabilities. The goals of the water supply project included the development of resident capabilities, the formation of effective local institutions, as well as the implementation of a viable financial management system.

In May 1995, planning meetings were held with key stakeholders, including senior staff of Lusaka City Council and the Lusaka Water and Sewerage Company and members of the community. These meetings were crucial to ensure clear lines of communication and joint ownership among the key agencies from the beginning. The next step was to convene several 'compound-wide meetings' of over 50 key organisations and leaders, and all other interested parties, to give broad consent to how the water project should proceed. It was found that by analysing how the problem of limited water affects different people, it makes public the amount of money and time being spent on water collection, and it brings to the forefront of people's awareness that it is women in particular who are most concerned. Both of these are crucial to implementation.

To increase the degree of residents' ownership of the meetings, and to build some momentum, some interested individuals began working on an assignment to begin drafting demarcations of zones to present to a compound-wide meeting, to allow more people to be reached and drawn into the process. These zones would become units for organisation, construction, operations and maintenance of the future water project. At the same time, a Water Working Group became a focal point for participation of the residents, and as a core group received more training, took part in planning, helped with compound zoning and siting of boreholes, and became the leader of zone-level meetings, reporting back periodically to compound-wide meetings. Through this series of meetings, residents naturally took ownership of a number of design considerations, such as planning how the scheme could be managed and paid for the long-term. Out of this evolved a commitment to pay a user fee.

Appropriate instititutional framework

In order to implement the water project and to manage it sustainably, the project needed to come up with an appropriate local institutional framework, that would have effective support linkages with government. In Zambia's recent past, there was a precedent in the grass roots level 'Sections', made up of about 25 households, 'Branches', and 'Wards' out of which a Ward Development Committee (WDC) was established. These WDC's tended largely to focus on political activities and were seen as top-down extensions of the one party state to ensure local level control. With the change of Government in 1991, and the emergence of a multi party state, WDC's were abolished, and replaced by Residents Development Committees (RDC). As non-partisan organisations, RDC's began to concentrate purely on the development needs of local residents, and several programs were initiated by the Ministry Of Local Government and Housing and City Council's to foster their development.

With his basic policy framework in place, the task of CARE and its partners was to adapt the model to the particular needs of a water project. Thus, at a later compound wide meeting, a community institution model was proposed, showing how zone-level meetings would lead to election of Zone Development Committees (ZDC), a Forum of Zone Representatives (FZR), and then into a (grass-roots elected) Residents' Development Committee (RDC). This is illustrated below by Figure 1.

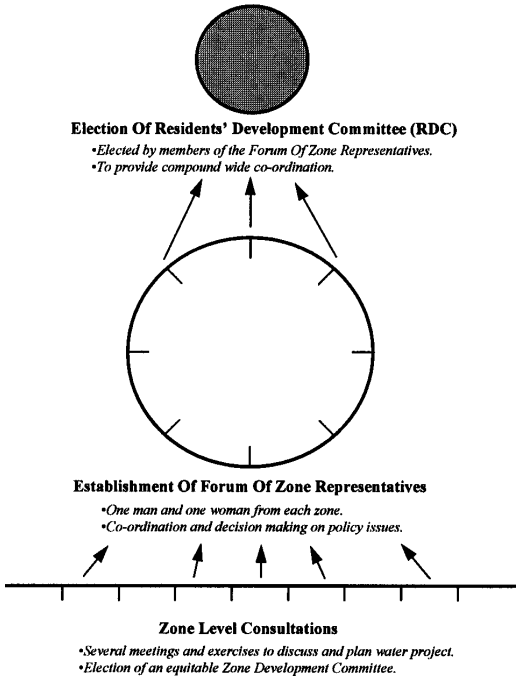

Figure 1. Structure for a democratically elected residents development committee

The strengths of this model are in the wide participation of residents, with emphasis on women, and clear accountability links between the residents, Zone Development Committee (ZDC) and the overall Chipata Residents' Development Committee (RDC).

Zone level meetings

The cornerstone and major activity of this whole phase of the project was the zone-level meetings, to engage with large numbers of residents in the planning and preparation work. Trial run zone-level meetings were conducted by members of the WWG, which included a registration exercise to obtain detailed demographic information. The meetings generally discussed the - 'What? Why? And what can be done?' - of the water problem, and the roles of community, council and CARE.

As expected, the initial response to the idea of a cash contribution to costs was that payment would only be made once water had been seen. However, one WWG member replied that when you apply for a plot, you pay your money and then trust that eventually you will get it, hence the same should apply for water. Residents' payment up-front was seen as an important sign of their commitment, and project staff frequently explained that progress would be dependent on the residents preparedness to do so. Another issue was political interference, and at one point the meetings had to be postponed for several months to avoid being confused with parliamentary byelections.

Meanwhile, a baseline study commenced in late 1995, which added considerable detail to the information already gathered. It showed clearly that residents were paying K50 for a 20 litre bucket of water, and with families consuming over 100 litres/day (a very modest amount), this resulted in a monthly household expenditure of over K7,500. Another group of residents, numbering over 40% of respondents, paid K150 for boys to collect 20 litres of water for them, so one such family consuming 100 litres/day would spend K22,250 in one month on water alone. This amount of monthly financial outgoing's had an obvious negative impact in terms of household livelihoods. Many household members were also found to be spending many hours collecting water each day.

These meetings gave residents a chance to get to know each other better, to take ownership of the water project, and then to elect their leaders at the zone level.

Election of compound leadership

Following the final Zone Committee elections, representatives were nominated to the Forum of Zone Representatives, which began to meet to review and approve aspects of the technical design which needed urgent attention. For example, the siting of water points which had been conducted by the WWG in late 1995 had to be revised, and this was discussed with, and approved by, the FZR. Other issues were raised which led to activities for Zone Committees, such as drawing up large maps of their own zones to assist residents to understand demarcations.

Once all Zone Committees were elected, a 2-day orientation meeting was held with the FZR, to ensure that everyone had at least a basic level of understanding of the water project, and to prepare for the RDC election. This was seen as a crucial meeting, since the FZR would need to remain as a strong body able to oversee development in Chipata Compound, and resist the temptation to relax, leaving everything to the RDC. Exercises of mapping and force field analysis were devised by staff to help residents understand the components of the water system, likely threats to each section, thinking about the capabilities that will be needed by the institutions that will be encountering these threats, and then thinking about roles and responsibilities of the various institutions. The residents worked as groups to create a complete water system using cards with different component parts drawn on them.

The FZR was then visited by Lusaka City Council officials, who were given a presentation on the contents of the orientation by the residents. Finally, the executive Residents Development Committee was elected.

Training for local institutions

The general roles and responsibilities of community institutions were agreed as follows:

- ***ZDC*** **:** Grassroots connection with residents - primary point for encouraging participation. Primary point of accountability of RDC structure to residents. Co-ordinate implementation of water project at zone level. Carry out appraisals and consult with zone residents to come up with future zone-level projects. Gather ideas with zone residents to take to the Forum of Zone Representatives for future compound level projects.
- ***FZR*** **:** Make compound policy decisions. Receive reports from RDC and review progress of compound-wide projects, give input, and evaluate. Periodically hold meetings that are open to other residents who are not members of ZDC's, e.g. leaders from other CBO's such as churches, associations, etc. Compound-wide meeting of representatives to bring ideas from the grassroots, to make decisions on major projects to undertake in the future.
- ***RDC:*** Co-ordinating major compound projects on a day-to-day, week-to-week basis, and providing leadership to ZDC's in taking on development roles. Reporting to the Forum of Zone Representatives. Representing the compound with outside agencies.

Roles and responsibilities mainly dealt with the question of: "what are we supposed to do?" or "what are we allowed to do?". Perhaps more important, was the question of vision, of having a desire and the capabilities to do something. What often holds back people from fulfilling new roles is a persistent attitude of apathy, fatalism, or a tendency to too harshly judge or be jealous of others who attempt to make a change in the community.

Thus, greater emphasis was given in all PUSH compounds to 'Community Based Organisation (CBO) Training', especially for members of Zone Development Committees. Training materials were developed in-house, drawing on materials from a number of different sources. The topics covered included: group expectations and rules, what is 'PUSH', brief history of peri-urban development in Zambia, participation, voluntary service to the community, involving women and men, community-based organisations, vision, servant leadership, partnerships, how to hold effective meetings, consultation and communication, project cycles, monitoring and evaluation, coping with witchcraft and jealousy, enthusiasm, conflict resolution, and participatory tools.

The experience during the first few months of training showed a high level of enthusiasm among residents, and the achievement of a higher level of maturity in all activities. Discussing the need for institution-building for long-term benefits led to the moderation of attitudes which had been holding back progress, such as the insistence by some on receiving payment before doing anything for the community. A number of ZDC's have since undertaken activities independently, drawing on themes learned in the CBO training.

Over the next few years, the water project was constructed and then its operation managed, with the community institutions in the lead. Residents were responsible for constructing 34 out of the 40 water points, and laying 11 kilometers of pipe. Successive waves of education have attempted to increase subscriptions and water scheme, and raise awareness about healthy use of the water. Problems of vandalism and other conflicts have been grappled with by the committees.

Stakeholder dialogue on ownership and management of water supply infrastructure

The concept of community-owned and managed water supply is relatively new, particularly in peri-urban areas of Zambia. Both policy-makers and citizens have always looked up to government and Local Authorities to supply the service, so the shift implies a redefinition of roles and responsibilities for all the actors involved.

One big question that immediately rose was the future role of governmental agencies. Lusaka City Council and Lusaka Water & Sewerage Co. were both involved from the beginning of the Chipata water project, and the relationship was solidified by their participation on a Tender Board which reviewed and approved major designs and procurements. This later became known as a 'Steering Committee' that continued to provide some guidance to the project. As with all other aspects of PUSH/PROSPECT programmes, the Lusaka City Council Housing Department has been a constant and key ally. In addition Lusaka Water and Sewerage Co. have freely offered assistance in reviewing designs and providing an additional counter-check to their appropriateness. Their future role would be to lend technical support and be an objective reference point for the RDC whenever necessary, especially after CARE pulls out. Finally, the government of Zambia as an inter-ministerial Water Sector Reform Support Unit (RSU) which is guiding policy development for the country.

PROSPECT is now seeking to finalize the framework for community management of water schemes such as that existing in Chipata compound. The Chipata water scheme has been operational since May 1997, under a temporary arrangement involving community oversight by the ABOs and support from CARE, Council and LWSC. CARE now wishes to establish a permanent management structure called a Water Scheme Board of Management, hand-over assets and formally commission the scheme. We intend in addition to continue to provide support to improving the financial and operational management arrangements to maximise benefits to the residents and the long-term sustainability of the scheme. Following this, we intend to proceed with implementation and consolidation of water projects in an additional 11 compounds over the next five years.

A number of agencies are currently working to establish models and strategies for peri-urban compound-managed water supply, both at the policy level and at the practical level. For PROSPECT, after a decision of the Steering Committee at its last meeting in October, a Task Force with representatives from Council, CARE and the RSU has been working to revise our approach to establishing the Board of Management, and the financial management manual guiding its financial operations. A draft has been prepared, and is being considered by management at the Council and CARE, and according to RSU, this could be acceptable for implementation, and subsequent development at the policy level. Meanwhile, the RSU is facilitating a process of establishing a Strategy for Peri-Urban Water and Sanitation, which is yielding a number of recommendations, which may have a bearing on Chipata and other water scheme Boards of Management. Additional work is being done by the Council through Sustainable Lusaka Programme, by Irish Aid and its government and community counterparts, and perhaps other stakeholders.

Thus, with the assistance the of a team of locally-based consultants, we wish to undertake two actions, in order to reach a framework for the Board of Management in Chipata, and some key management arrangements, which is acceptable to all stakeholders. The first is to undertake a series of personal and organisational interviews and documentational analysis on the matter, to gather existing intelligence on a series of questions posed below, raise further insights and recommendations and explore any additional emerging questions. The second is to hold a 1-2-day workshop at which a range of issues would be discussed with all relevant stakeholders, and we would reach some consensus.

A consultancy is therefore planned to analyze the current framework and guidelines, and the current issues facing the Chipata compound community-managed water supply system, obtain viewpoints of a wide range of community and agency stakeholders, and assist CARE to generate

recommendations on whether and how to refine the approach. It is expected that the outputs of the consultancy will also inform and enrich the development of the national peri-urban water and sanitation strategy.

Conclusion

As CARE prepares to commence construction of new water supplies in other compounds, the institution building process is being refined and numerous improvements and adaptations incorporated. We're trying to strengthen our approach from a number of perspectives: incorporating sanitation and environmental health, implementing improved operation performance monitoring, dealing with mixed private and communal arrangements in a given compound, and piloting different charging and management arrangements. At the same time, the experience of Chipata compound has proven to be still one of the few urban community managed water projects, and may offer a number of lessons for other projects.

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