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Learning in the field

How 22 communities improved their water management



Esther de Lange
(Editor)

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**Community Managers
for Tomorrow**

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PAN AFRICAN INSTITUTE FOR
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Learning in the field

How 22 communities improved their water management

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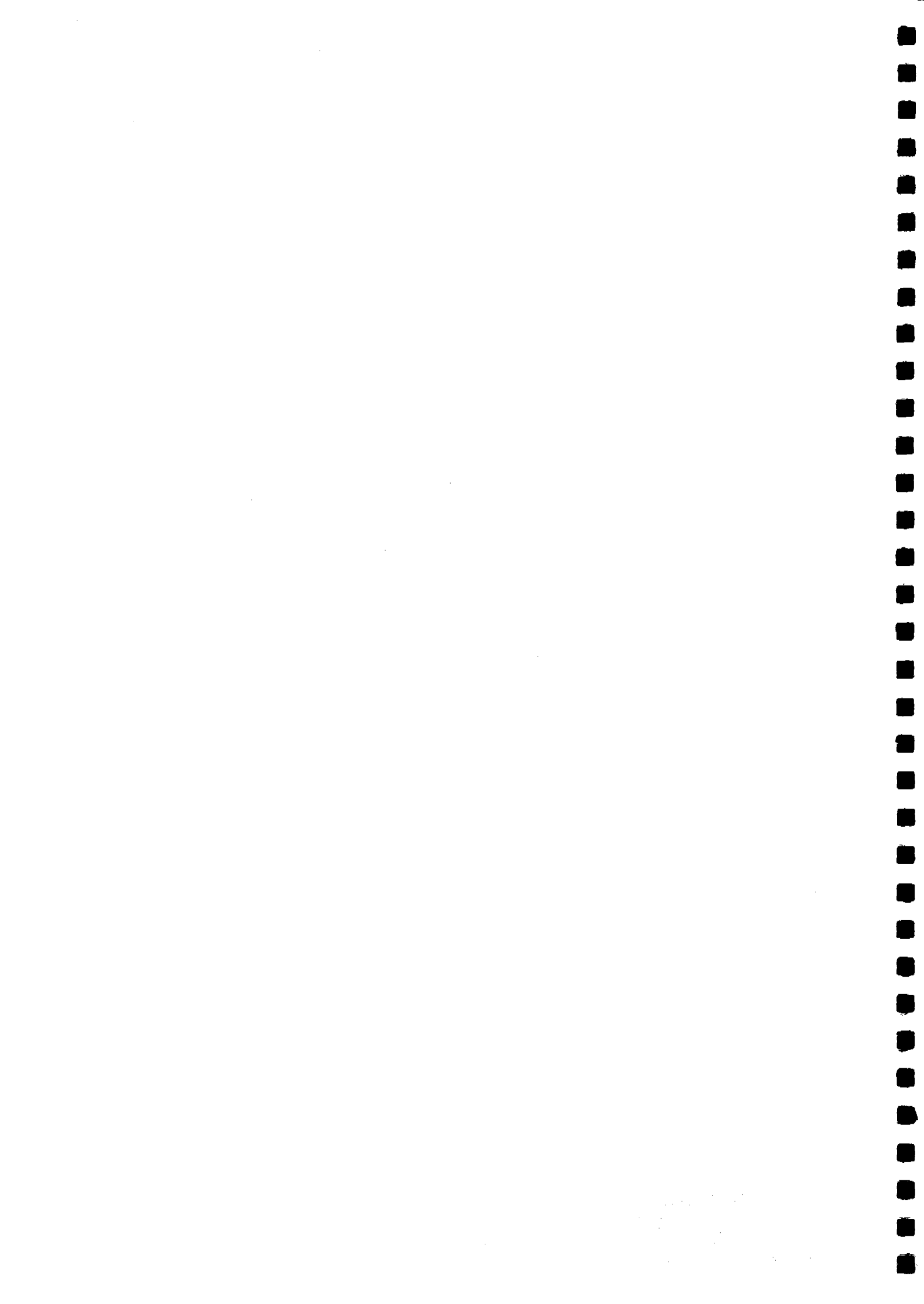


Table of contents

Preface	v
1. Community organisations are getting strong	1
1.1 Bokito Rural in Cameroon: When resistance is changed into commitment	1
1.2 Aguacatan in Guatemala: How seven communities join hands	7
1.3 Sigomere in Kenya: Getting organised	22
1.4 Yampahant in Nepal: Revival of the water user committee	26
1.5 The PAD approach in Rangpur, Nepal	38
2. What stimulating leadership can do	46
2.1 Nkouondja, Cameroon: A committed village leader	46
2.2 Ghaziabad in Pakistan: The role of local leaders	49
2.3 Batcham in Cameroon: Stimulating community initiative	54
3. When women are involved	58
3.1 The case of Nkouondja in Cameroon: Women are getting a chance	58
3.2 Hoto in Pakistan: The value of having women involved	62
3.3 La Sirena in Colombia: Women taking leading positions	72
4. On the way towards democratic management	80
4.1 Nyen and Mbemi in Cameroon: Democratisation in water supply management	80
4.2 Ceylan in Colombia: Overcoming political interference	89
4.3 Pakora in Pakistan: How to manage an originally unwanted, given water supply system	95
5. Convincing people to pay for water	102
5.1 Nkouondja in Cameroon: Financial management	102
5.2 Hasis in Pakistan: A traditional system of fining	105
5.3 The story of Barrel Chiquito in Guatemala: Dealing with water fees	111
5.4 Lele community in Nepal: Trying out different water tariff collection systems	123
6. Changing roles is not that easy	135
6.1 Belén in Guatemala: How to change ineffective management?	135
6.2 Kiveeto in Kenya: Putting ownership where it belongs	149
6.3 Nyakerato in Kenya: How to overcome being treated as a donor agency?	156
6.4 Gajedi in Nepal: The community takes up monitoring	163
6.5 The story of Yanthooko in Kenya: Enforcing management skills	169
7. Sparkling ideas in community management of water supply systems	175
7.1 Nyen and Mbemi in Cameroon: A fountain as symbol for the new water supply system	175
7.1 Compoalegre in Colombia: Local watershed management to ensure a sufficient water supply	179

Preface

This series of five documents, together entitled *Community Water Managers for Tomorrow: Partnerships for water management in rural communities*, has been developed by IRC in collaboration with teams from partner organizations in six countries. At the heart of these documents are the experiences of the local research teams at the community level, who have made enormous contributions to the adoption of this approach to community water supply.

Each of the five documents in this series has a different focus, but are all based on the same experience – a four-year participatory action research project to improve the management performance of rural communities of water supply systems in developing countries, called the PAR-Manage project.

The first two documents explain what happened during this four-year research project. Document 1, *Putting Community Management in Place: Four years of experience in improving water management*, describes the research process and presents the results and conclusions of the PAR-Manage project from the perspective of the support agencies and IRC. It explains how the participatory research was done, the tools that were used, what happened in the process, and what it demanded from the agencies and communities involved. More importantly, it documents the experiences of researchers in the communities themselves – their progress and setbacks, negotiations and discussions in community meetings, exchange visits and experiments.

Document 2, *Learning in the Field: How 22 communities improved their water management*, presents case studies of each of the 22 communities that have been involved in the project. These case studies permit a better understanding of the project from the perspective and focus of the men, women and children in these 22 communities. The case studies illustrate the main problems faced by rural communities, their efforts to improve the situation, and their achievements in terms of their improved ability to manage their water.

The next three documents contain what project team now call the Participatory Action Development approach to community water management – in short, the **PAD approach**. Document 3, *The Participatory Action Development Approach: Supporting Community Water Management*, is based on the process of action research that was developed and tested throughout the project, to arrive at an approach for supporting communities in managing their water supply systems. Around this approach, the teams developed methods and tools that are now available for wider use. Most of the material in this document is intended to help readers understand community management and the ideas behind the approach. Practitioners can adapt the approach to suit local circumstances, developing a critical awareness when putting the approach into practice.

Document 4, *Facilitating community discovery: Getting to know about water management*, gives a brief introduction to the PAD methodology, which consists of three phases – Diagnosing, Experimenting and Sustaining. The manual explores the Diagnosing phase of the PAD process in detail and describes the methods and tools that can be used during implementation. The document explores what factors need to be taken into account, the pitfalls to avoid, and the tools or set of tools that can be used in each step in the process.

Finally, document 5, *Experimenting with the Community: Identifying sustainable solutions*, again gives a brief introduction to the methodology, and then explores the Experimenting and Sustaining phases of the PAD process, together with the methods and tools that can be used.

These last three documents have been produced separately because they will be easier to use in the field than one large bulky volume. However, each part belongs together with the other parts. Documents 4 and 5 have been written mainly for practitioners, explaining how to put theory into practice. The main aim is to provide a set of tools that can be used by support workers to help communities to shape their own lives. These two documents therefore try to combine both reflection and action.

All of the methods and tools described here have been used effectively in the communities in Africa, Asia and Latin America over the past four years. However, they should not be seen as a blueprint for community management. The project team concluded halfway through the research project: 'Each situation, each culture, each place, each experience, and each community requires its own approach, although general principles can be applied'. Sensitivity to the needs of communities, and quick judgements on what would be most helpful at a particular time or during a particular process can only be developed through constant practice, complete openness to feedback from the villagers, critical reflective analysis, and years of experience.

In the near future these documents will be complemented with: (i) videos (one general video and six country-specific videos) on the experiences with the community management support approach; (ii) a manual, *Training for Trainers*, for the staff of support organizations who wish to use the approach in their field of action; and (iii) an Internet website to support all the initiatives to bring to life the PAD approach. In the project countries themselves, 'Information Focal Points' will also be established to provide background material to enhance the activities, and to enable exchanges of information at the national and regional levels.

About this document

In each of the six countries, Cameroon, Colombia, Guatemala, Kenya, Nepal and Pakistan, the so-called PAR teams worked in three or four communities with the aim of improving their capacity to manage their own water supply systems. Together with the PAR team, each community went through the participatory action research approach of identifying problems, setting priorities, developing problem-solving strategies, trying out one strategy, assessing whether it achieved the desired improvement, and if not, trying out another strategy. In this process, in which also local authorities were involved, the PAR team and the communities were supported by an advisory group in their countries, the national reference groups (NRGs), and by staff members from IRC.

This document presents 22 case studies of the communities that have been involved in the project. The case studies reflect the four-year process as described above, and highlight the major findings and lessons learned in those four years. This is one of a series of five documents that are being published as a result of the project. It complements an earlier IRC publication consisting of country reports and case studies compiled by the same six teams at the beginning of the project,¹ describing the existing situation with respect to community management of rural water supply systems in each country at the start of the project.

¹ IRC International Water and Sanitation Centre, (1997). *Water Supplies Managed by Rural Communities : Country reports and case studies from Cameroon, Colombia, Guatemala, Kenya, Nepal and Pakistan*. Project and Programme Papers 5-E. The Hague, the Netherlands.

Chapter 1: Community organisations are getting strong

1.1 Bokito Rural in Cameroon: When resistance is changed into commitment

In Bokito Rural, the villagers believe that no matter the problems that exist in the village, the location and accessibility of the village and the length of time spent outside the village, the elites will always return there because they have no other home.

If these people were wrong, the elites of the village who now enjoy city life would not have been coming back the village. Some attempted to stay away but it could not work because of traditional rites they need to perform. If this is true, then the people are right to believe that home is home, and that the solution to their problems is not to run away.

Why would someone abandon his village? According to the elites, they are disappointed with the villagers who are accused of witchcraft, disorganization, and not committed to development. They cannot see how a water supply project, which was installed in the village through their influence, should be allowed to crumble and the Village Development Committee (VDC) created to collapse. Unfortunately, they do not have another home. The village is their home and will always remain their home because their culture doesn't permit any son or daughter to be buried outside the village.

Should the village people really be blamed? Are they as bad as the elites believe? How was the water supply project established? And, can the PAR team make a difference? These are some of the challenging questions we had in mind when working with the community from Bokito Rural.

Where is Bokito Rural?

Bokito Rural is a village located some 200 km North West of Yaounde, the capital of the Republic of Cameroon. This village is under the administrative Division of Mbam and Inoubou in the Center Province of the country. It is one of the lucky villages in the country with most of the roads tarred except for about one kilometer distance. On entering this village, you will not miss the locally constructed bridge which was repaired by the youths of the village who are collecting fee from every vehicle crossing the bridge. Just after the bridge is the chief's compound looking clean like most of the compounds in the village. As small as the village is, there are three quarters, namely Niolomo, Doubodo and Ossombi, making up the entire village.

The Yambassa people

The Yambassa people, that is how the Bokito people are called. This is a tribe which is considered to be hard working. This can be seen by the variety of both cash and food crops they grow. An indigenous Cameroonian will not stave in Bokito Rural because there is enough to choose from: yams, maize, cocoyams, plantains, ndole, and almost all fruits which keep a person healthy and gives some income. Both men and women are engaged in food cropping though not to the same extend.

When it comes to major income generating activities, Bokito is not very much different from many other Cameroonian village communities where women believe that the man is the bread winner of the family. Cocoa farming, which is a very good source of income, is basically owned by the men. The women and children provide free labor to clean and harvest the cocoa, and only the man knows the market price and how the money is spent.

The people may be hard working but their ability is limited. While they have fertile land with which life seems satisfactory to them, they will not let a stranger or potential donor come and go without complaining about the lack of a school for their children, the dirty water they are drinking, and the absence of electricity which can be found just 500 meters away. Though physically very near, electricity is still a far fetched dream for them as they are still struggling with the basic element of life - potable water. The only infrastructure they are proud of is a church with a pastor who is very important to them, and who acts as their primary adviser and source of historical facts about the development of the village. His old age and education in those early days of colonization probably gave him this position. He actually demonstrated this ability during the historical findings about the water supply project in the village when a reconnaissance survey was done as part of the Participatory Action Research (PAR).

Nobela the mystical water source

If there is anything the Yambassa people of Bokito remember about their water sources, it is the mystical Nobela Source. This is a natural water source believed to be the reason behind the settlement in this place by their ancestors. No matter how prolonged the dry season may be, all other sources will dry up but not Nobela.

You may be thinking of a very large stream too voluminous to dry up by the simple effect of a prolonged dry season. This is not the case with Nobela. Rather, it is a small pond which will not reach the knee cap if you step in it. It does not flow. The people come with small bowls they use to scoop the water and fill their large containers. As they say, no matter how many people come to collect water, nobody will return without water and Nobela will not dry up.

Like any standing water in a pond, it becomes dirty after many users had been there. Everybody knows this and everybody needs clean water. As a strategy to get clean water, some people go there at night and also as early as 5 a.m., when most of the dirt from the peak period, usually in the evening - often between 5 p.m. and 7 p.m., has settled down. The water is equally clean during the day but at this time the users are on their fields. Small children are the only ones able to fetch water during such periods but Nobela is not the right source for children during the day except when you do not value the life of your child.

I would not be surprised if you wonder why children are not allowed to use such a small water source in the afternoons. Just as we value water, so do the animals in the bush. The villagers tell stories of animals going there to drink from that same source because it seems to be the only source in the vicinity during harsh dry seasons. They narrate stories of encounters with snakes and other animals, even including lions. Some courageous people go there and climb on a big tree just to watch these unwanted users who do not help them clean the source. Hunters take this as an opportunity to hunt. They either set traps or hide and wait to shoot the animals. You can now understand why children are not allowed to fetch water from this source in the afternoon.

Nobela is not the only natural source of water at Bokito Rural. There are three more and the quality is the same - polluted yet the people still drink. The quality of water had made some of the elites avoid coming home as the villagers said *"Many of our elites are not coming to the village because they cannot stand the quality of the water we have. Some do come but they buy as much bottled water as possible even including bathing water. Some come and get infected diseases and their children, who are not used to the water, die. In some cases, the deaths are attributed to witchcraft which stops them from coming to the village again. Unfortunately for them, they still have to come because home is home. No matter the problems in your village, you still need to come there. Therefore, the solution is not to run away."*

PAR on trial

Can you imagine yourself confident that you want to help some people only to be rejected at the beginning by the same people? This was our experience in Bokito Rural during the first encounter with the community members about the PAR project. You need to have patience, understanding and courage to continue. Then the end result can be completely different.

Old experiences, political influence and selfish manipulations can create regrettable losses because new adventures are not tried. The people of Bokito Rural will tell you, as we shall be reading in this chapter, what they would have missed if the PAR team would not have been experienced enough to encourage them take a chance.

The initial community meeting

After making the contacts with those who matter in the village, such as the chief and the president of village development committee (VDC), the PAR team in the company of the Sub Director of CD in Yaounde, the Divisional chief and one staff of CD Bafia, were meeting with the Yambassa people of Bokito Rural to present the PAR project.

The meeting was well attended by both women and men, including children. Everybody was waiting to hear the good news about their abandoned project. We explained the objectives of the project, the geographical coverage in Cameroon, and the organization from the level of IRC in the Netherlands. The villagers were all attentive and expecting to hear more. When we ended and asked for questions only then did we know that people were expecting more than we presented.

An internal elite, who is a councillor in the Bokito Rural Council, put up his hand and stood up. He said, *"I am very sorry that you may have some good intentions but we're are tired of hearing about the issue of water all the time. The population you have here could have been doubled if we had been talking about something else. The people are totally discouraged when it comes to water because many of your friends have been here, said the same things and year in year out we still do not have water up to today. So I am afraid that you might have wasted your time."* The rest of the community members immediately clapped. We could now see a wide gap between those we met before and the community. Still in a confused state, the Divisional Chief of Community Development in Bafia stood up and retorted trying to condemn the people when the PAR team intervened and stopped him. The situation was not strange for the PAR team because it was not their first experience of this nature.

Looking around we found that everybody had banana trees behind their houses, which indicates the importance of this tree. We asked them, "If you are given a bunch of ripped bananas or suckers, which will you prefer?" Majority went for the suckers. "Why?" They gave reasons such as that suckers would provide more bananas and can be spread by distributing them. That was when we made the analogy to the objectives of PAR which is to teach them how to solve their problems and not to provide solutions. This relaxed them and allowed us to continue. The Sub Director of CD added the Chinese saying "*When you give someone a fish, you feed him for a day but when you teach him how to fish, you feed him for life*".

Learning experiences

The community was requested to provide six persons with whom we could work. Before they could elect anybody, there were already six volunteers. They became our Local Research Group (LRG) who continued the activities the following day. While planning for the following day, one of the LRG members, Mr. Botoko Joseph, swore that nothing would take place in the village before 2 p.m. The CD Chief immediately responded condemning them for being ungrateful for somebody coming from far only to wait for you the whole day. We accepted the villagers' time and promised to meet after 2 p.m. The CD Chief could not understand our behavior to accept almost anything from the villagers. We were not surprised by his reaction because that is the way most people have been working with communities. The PAR also has been a learning experience for him.

This same people who told us that nothing would take place before 2 p.m. because everybody would be on their fields, were the very first people who requested to start at 10 a.m. after the first day of the training workshop. Eventually, some of the sessions started as early as 8 a.m. and on no occasion the PAR team arrived at a meeting venue before other people. Instead of expecting things from us, these people now were offering us almost anything they could afford, which is their own way of saying thank you so much. The LRG members did sacrifice any time for the project. One interesting moment was when they had to participate in a workshop in another village. Information sent to them never arrived and when we got there to collect them, they were already at the market. When we explained what happened they immediately abandoned the market and hurried home to pick a few things so that we could move immediately. This was when we saw how committed these people were to the project. Generally, villagers would hardly sacrifice their market days like that.

The rapid change of mentality in the community was something everybody saw. The CD Chief now discovered why we were accepting almost anything. Mr. Ghamogha said that things may never be the same again when working with this community and cautioned his staff to be wise. Upon his return to Yaounde he immediately wrote to his Minister requesting all CD field staff to be trained on the approach. The Minister then wrote to PAID-WA which promised the training when the research would have ended.

Many hands make work light

The PAR approach is not only participatory involving community members, but also needs the support of agencies whose role should be well defined. You may soon find many people wanting to be part of it. Often some do not correctly interpret the objectives and have in mind expectations which could be far out of place.

The process as we carried it out in Bokito Rural involved agencies, local village groups, and interested individuals. They all play an important role. Other parties involved were the Local Research Group, the National Reference Group, the Department of Community Development in Bafia and CD Head Office in Yaounde.

The CD Head Office

The department of CD has its head quarters in Yaounde, where the different departments in charge of planning and monitoring are located. They supervise the provincial services that control the divisional services.

As an entering point to many community water supply projects, we had to enter Bokito Rural through the CD Head Office, where we met with an elite and the sub director who accompanied us. He was just interested in seeing what we were going to do, and how it would be different from what they had been doing in the villages. When we met the Divisional chief of CD at Bafia, the divisional capital, he briefed us on the project and sent an engineer who worked on it to lead us into the village.

During this first day, the director from Yaounde got very interested and was always with us on all our trips. Sometimes we sent information to the village through him. At times he went there himself or telephoned his Divisional Chief to act on his behalf. This vital role in ensuring our activities was very important, as the village had no telephone and it was difficult for us to be always able to contact them. They could come to Bafia and phone but we could not get to them. This very man then eventually became a National Reference Group member and was elected as adviser of the group.

The Local Research Group

The local LRG established during the first encounter with the entire community soon became an important group in the village. They had gone ahead and made themselves into an association called ACHELBOR. The reason for the formation of the association was to make sure that rules were created and members would respect the rules, otherwise people would attend one day and the next time they would not. They wanted only very committed members. This seems to have worked very well because they are the most powerful LRG among all the four we have.

The group reorganized herself and made the only lady member among them the president. The former group leader became the secretary. Rules and regulations were developed to discipline themselves. In this way, they began to perform many activities in the village. Meetings were being held frequently to discuss the techniques and tools discussed with the PAR team, and even to apply some. The transect walk on the system was organized and carried out. They held meetings with the community and discussed activities. One of the activities was the clearing of the system pipeline so that the group could have easy access. The number of people that showed up was high and the whole distribution network abandoned many years was cleaned.

Working with your own people is not easy. They told us about other people trying to sabotage their work by intoxicating others by saying that the group is not going to make any change. and that they meet and eat and are not doing anything for the village. At some time they were even called researchers for food. As the female president told us, they were not discouraged because very few

people will see results that are not immediate. Those who are intoxicating may say anything but the LRG are sure of what they are doing. She was so confident and determined.

Another commonly used tool was household visits and discussions. The LRG explained to us that it yielded very good results. A meeting was to take place though attendance in previous ones had been low. They discussed how to improve the attendance and one option they came up with was to tell the chief to impose. After thinking about the issue of discussion and participation, they changed their mind and instead planned household visits. They formed two groups of two persons each and divided the village. They then went from house to house and discussed the importance of water, the PAR project, and the rumours that were circulating about them. People were now telling them the discouraging information told about them. On the day of the meeting, almost the entire village came out and that was when the villagers discussed the development backwardness of their village. It was in that meeting that they requested ACHELBOR to help organize a general assembly that would include elites.

ACHELBOR took the challenge and organized the meeting, and new members were elected into the bureau. Since ACHELBOR organized the meeting successfully, the people then trusted them and elected most of them into the bureau. This led to the death of ACHELBOR. Now it is the Village Development Committee (VDC) that handles the activities of the PAR project. The PAR team had the responsibility of solving these problems but acted behind the scene in order to see the competence of the local researchers to continue the process.

1.2 Aguacatán in Guatemala: How seven communities join hands

Four years ago the SER support team began a process of Participatory Action Research to improve water management in seven communities belonging to the municipality of Aguacatán. At the start of this process, the community leaders asked us: “Do you have financing to fix our project? Can you give us tubing to improve the flow?”

The directors of institutions such as UNEPAR, with whom we had coordinated, also doubted our ability to manage the project. More importantly, they doubted the effectiveness of a process of this nature. To be honest, each member of our team harbored doubts.

Explaining the project to the director was difficult; explaining it to the community was even more so. From there we began the process with a few community leaders that were willing to try. Along the way, other community leaders got involved; still later, the community members themselves became protagonists. This passage from “spectators” to “actors” occurred only when they saw that the meetings, assemblies and discussions, which initially seemed like a waste of time, took on life and showed results.

The PAR process involved participatory assessment, problem sharing and analysis. Little by little, the deeper everybody got involved in the PAR process, the better it was understood. Based on this understanding, the community leaders and their organizations made a plan, later to be validated in community assemblies, detailing priorities, alternative solutions, and decisions. This process occurred with respect for the community’s own way of organizing and participating. This was a difficult process because an internal war had recently ended in the country; ten years ago, thinking, speaking or meeting was a crime that often times was paid with one’s life.

Also, the process involved actions that were not previously planned. People demanded fast action and asked themselves: How do we guarantee follow through on the things planned? How do we manage to improve service of good quality water at the least cost possible and that, above all, lasts?

As the community progressively got more involved in the process, it was increasing unlikely that they would leave it. Don Chabelo, the president of APAGUA, explained:

“If we don’t solve our water problems ourselves, nobody is going to solve them. If someone else does it for us, we get used to that, and that is even worse because water is not our only problem.”

Together with the people, we at SER have managed to learn and understand. These processes need to combine the short term and the long term, the theoretical with the practical. People told us that “it’s fine what you’re saying, but we’re the ones who have to mend the tubing and have water.”

In one of the communities, something rather instructive occurred. One day, when the community was happy and we were satisfied what had been accomplished in the PAR project, it rained very hard. Part of the tubing blew, the distribution tank clogged up, and the catchment tank split. The community’s joy ended. However, one of the community leaders, despite her sadness, mustered up courage and told her companions: “It looks like we begin again. The good thing is that we already know how to do it.”

Introduction to Aguacatán

To get to Aguacatán from the capital, one must cover 305 kilometers.² This municipality is made up of 49 rural communities. Seven of these – Chex, Chichoche, Tucuná, Aguacatán Canton, Patzalam, Agua Blanca and Río Blanco – are home to 550 families (3600 inhabitants) that organized themselves for a water project.

The thing that stands out about these communities is that they are of indigenous ethnicity – Aguateca, Quiché and Chalchiteca. The men are rarely literate, and the women even less so. In general, they only speak their own language, which is not recognized as “official.”

On Aguacatán’s various dirt roads or small plots of 5 to 10 *cuerdas*³, we can see men with their hoe, hat and shoulder-slung bag ready to work the land in ten to twelve hour shifts, producing corn, black beans and lima beans for their families. We can find still others growing garlic, onion and tomato to later sell and in that way earn some monetary income.

In the houses, the women generally busy themselves with domestic activities – cooking, sweeping, bathing the children, tending the chickens and pigs. Sometimes they sit down to make their clothes, such as the *güipiles*, *cortes* and *cintas*.⁴

Every year in the months of April, July and August, the men, women and children, with their bags, hoes and kitchenware in hand, load into the backs of trucks heading for the southern lowlands. There they work on the plantations in miserable conditions at a salary of about one dollar a day for the men, and even less for the women. The children are sad because often they have left school to be able to accompany and help their parents.

Drinking water

Until 1986 these seven communities in Aguacatán did not have a potable water system. The women and children were the ones who would go get water from the rivers, streams and homemade wells in the area, running many risks because of the steep ravines and swift currents. They spent three hours every day bringing water back to their homes.

The water was of poor quality, and consequently, the children, especially, developed various disorders – diarrhea, vomiting, stomach aches, headaches and dehydration. Without health services at their disposal or the economic means to pay for a doctor, many children died. Doña Ana Simón, a resident of Chichoche, commented on this situation:

“It’s very hard for us to go all the way to the hillside to get water. And the water is very dirty – it looks like chocolate. That’s why it gives the children diarrhea so often. Sometimes they just die.”

² In Guatemala City, we find 82% of the non-governmental organizations (NGOs) that work in the water sector. Although some institutions have offices in the departments, the decisions are made in the capital. Such is the case with the Social Investment Fund (*Fondo de Inversion Social*), the Peace Fund (*Fondo para la Paz*) and the Municipal Public Works Institute (*Instituto de Fomento Municipal*)

³ A *cuerva* measures 25 meters x 25 meters, or 625 m². This is one sixteenth of a hectare.

⁴ A *güipil* is a colorful blouse, often elaborately embroidered. A *cortè* is the usually plainer traditional skirt used by the women, while the *cinta* is an embroidered sash.

Working for a project

In the Patzalam community, three of its leaders thought about the need to do a water project. They convened a community assembly⁵ to consult with all the people. Having their endorsement, but not having the money, they decided to organize and make a general collection to create a fund that would serve the travel needs for the committee to go out and look for the support of an institution.

For five years they solicited several governmental institutions, but these did not respond. They then found the support of an NGO called *Agua del Pueblo* (ADP)⁶, who made the initial studies and budget. The president of the Patzalam committee recounted the process:

"We in Patzalam began looking for an institution that would help us bring water from Pericón. Since it was very expensive, we thought that it would be better to speak with other communities to do one single project for everyone. That was how Tucuna Chex, El Cantón and the other communities got involved. That was the hardest thing about this project."

The leaders of the other communities held assemblies. The seven communities realized that they had the same problem and that the water source could supply them all. They also realized the many advantages of working together: a) the project would be cheaper; b) there would be more manpower for the construction; and c) the labor could be divided into operation, maintenance and improvement when the system was finished.

They then decided to do one single project for all seven communities, taking advantage of the same water source, as well as the financial resources and technicians from the institution that was going to support them.

Seven local committees were then organized, one in each community. With two representatives from each committee, a general assembly of "associates" was then formed. Also, a Central Council was elected, initially devised only to coordinate the project's execution.

A new water system but no water

Fourteen years after having been built and eleven years of serious technical and administrative problems with the supplying of water in Aguacatán, the PAR support team intervened. We presented the PAR project and discussed it with the Central Council of the association of water projects in the seven communities of Aguacatán – APAGUA. At first, incredulity reigned because they saw us as outsiders from yet another institution that came offering "stuff." They were also suspicious since there were many paramilitary groups in the region that used whatever pretext to obtain information about the community. Slowly and with great difficulty, they accepted the idea of working together.

We began with an assessment of the seven communities through meetings with council members, which was later subjected to consultation and validation in community assemblies. Several techniques were used, such as mapping, walks, observation, matrices, cross sections, structured interviews, as well as an examination of the Mayan calendar and the community's daily routine.

⁵ The community assembly is a meeting of all the residents of a community to pose and analyze problems and to make decisions.

⁶ Water of the People

Throughout this assessment process, one could get to know the community. As we can see in the following comments heard in meetings and assemblies, the community members were dissatisfied with the irregular operation of their water system:

- We're tired because of the problems with the project. The tubes break every little bit; there are times that we're left for more than ten days without water . . . You can't see the work of the committee and the Central Council. You can't trust them – they have sold new taps, but who knows where they spent the money.
- They keep asking us for contributions to fix the project, but they don't repair it. We don't want to pay the fee anymore or give more contributions because nothing gets fixed.
- Some residents take advantage by demanding service but then not taking care of the water. And when you ask for their help for their participation, they don't even show up.

With respect to the poor operation of the system, the water engineers observed: “A big part of the trouble with the interruption of the water supply for days on end was because of the damage to the structures, which were due to, more than anything, administrative problems.”

The Chex committee members explained how the problems affected them:

“When we come down from the mountain to inform those on the committee about the kind of damage to the flow, we don't find anybody. Most of the time, we go back without fixing anything. To us that means having walked ten kilometers to come down and ten to climb back up to our community. ”

“The Central Council has the tools to make repairs, and every time there are problems in el Pericón, we have to go down and get them. But if we don't find anyone, we return and come back to town on market day to look for the president or treasurer. ”

In the assemblies, the council members explained the situation from their perspective:

“Our project has problems in the conduction lines for two reasons: first, due to the landslides that sweep away all the tubing, and second, because people break the tubing to be able to drink water. That's why the service gets interrupted every so often . . . (The associates) weren't happy and . . . the situation was very worrisome because people don't want to give their contributions anymore. That's why the water problems can't get fixed, because a lot of money is needed . . . [T]hey also don't help to go see what the problem is; they always say they don't have time. It takes us a lot of time to go see where the problems are – hours of walking and lots of dangers climbing up the mountain. People don't see that. ”

The previous selections demonstrate the confrontation between the council and committee members and the associates of the water supply system – a project that cost Q 900,000 (US\$ 140,625) and that did not work.

Improving the ability to manage water

Having gotten to know, discussed and analyzed their problems, the Central Council and seven local committees made priorities and plans. (It was impossible to prioritize and plan with the entire community.)

Several planning techniques were used, such as the scale of priorities, matrices, logical frameworks, and *la placita*.⁷ Taking advantage of meetings and assemblies, the central problems were identified and community plans were made, within which was included a program.

During the planning process, many associates made themselves heard:

- The project is ours and we have to take care of it.
- It would be good if those on the Central Council and the committees informed us about everything that happens so that people don't go around spreading rumors . . . [I]t would also be good if the committee worked and put us to work, and if someone doesn't want to, have their service taken away.
- It's better if we use the regulations; that way, there's no nonsense – everyone is equal with regard to what is demanded of us and what we have to do. If what we have doesn't work [i.e. the regulations], let's make new ones.
- What we want is that tubing on the mountain get fixed, or else, the PVC pipe get changed with steel pipes.
- We want a new project because the one we have gives us a lot of problems and we have to keep on repairing it.

Others, feeling more desperate with the situation, suggested that *"it would be better if we sell the taps because they are asking too much money for repairs."*

A few leaders gave their opinions: *"Better if we talk to the director of the institution in Xela so that he helps us fix the project . . . Where people break the tubes, let's put a tap there and see how it goes."*

These were the preliminary ideas put forth to improve the management of water. After a heated argument between the beneficiaries and their leaders in the assembly, they began working together. They managed to divide the operation and maintenance of the water system. They also divided the 17 kilometers of conduction line into seven parts, with one part being the responsibility of each

⁷ "The little plaza" is a technique in which people familiarize themselves with activities and results through charts and diagrams.

community. Next, the keys to the padlocks of certain key structures in the system were distributed, and more tools were obtained.

Elsewhere, they recognized the need to train more water engineers so that each community would have its own. Regarding this work, the seven council members set for themselves certain tasks:

“First, look for a solution to fix the technical problems with the water so that people give their contributions and don’t sell their taps. Later, let’s strengthen [train] the committee and water engineers to avoid the same problems in the future.”

After several meeting and assemblies, they managed to make plans and timetables. The people decided that to keep track of their completion, and everyone had to watch over them and indicate in the assemblies when they were not done.

Seven communities organizing and working together

At first, the communities had united only to execute the project. But now, according to the need identified in the assessment, they made their plan by consulting with all the associates. This obligated them to better define their organization and operation.

Within each community, the water committees were strengthened. The committees were now elected through community assemblies, wherein a list of new members was presented. Their function was to direct each community in the management of water. To guarantee the coordination among these committees, a general assembly of associates was organized, made up of all the committee members in the seven communities.

This assembly, in turn, elected a Central Council, which was in charge of the global management of the water supply. Through this process, the community members, organizations and leaders participated and made decisions about the system and water management.

The local committees are made up of seven people: president, vice president, secretary, treasurer and three other committee members.

Plans were made in the community and followed by the support team; activities included exchanges with other committees in the municipality; workshops with committees; and training sessions for community leaders. These actions allowed the community leaders themselves, by using participatory methodologies and techniques, to better define their functions:

- All of us who are project associates have to pass through the committee because there is no way only a few are going to lend services while others do not. That is why the community named the committee through a list; that way, we all participate equally. When someone refuses to participate, there will be a sanction: water is taken away from us for one year, and we still have to keep giving our contribution and workshifts if we want to get our service back.
- We have to be at all the committee meetings to deal with matters relating to the water. We also have to go to Central Council meetings in town. When there

are technical problems, we advise the water engineer so that he is with us to see how to solve the problems.

- We invite the associates when they have to be informed about problems with the water in order to plan with them what we are going to do, as well as to ask for their contributions and manpower for work in the project.
- The committee is changed every two years. If we do not render accounts of our work and finances, we get a punishment: our water can be taken away for one year.

The group of people that represented the seven communities was the Central Council. Ever since the Central Council was organized, different actions had been taken, but its work was mired in debilities, conflicts and obstacles that limited its proper functioning. Like the local committees, the Central Council at first had little knowledge of the work it had to do in the management of the project.

In one Central Council meeting, their functions had to be analyzed and discussed. In the end, they were defined thus:

“Our biggest job is to see to it that the water service works. One must, then, have knowledge of what happens with everything related to the water; make a work plan; and make decisions.”

The Central Council members determined more specific functions as well:

- Meet every fifteen days to talk about water and sanitation.
- Look for ideas to do the project maintenance and see to it that it lasts.
- See that all the assemblies help in the work to improve the water project.
- Make sure that maintenance and operation work is done.
- Keep the local committees informed about the work we do in the Central Council.
- Invite the local committees to decide what work we have to do with the water.
- Look for help from other institutions and organizations to improve the water project.
- Report on the financial resources we have and how we spend them.

The president of the Central Council, recalling the work done to fix the project, explained:

“When we were working on the repair of the project, we realized in the assessment meeting that there were other problems, and we began to see what they were. During the talk, many more problems surfaced and we said that it would be good to fix them, too. So afterward, we made a work plan, wherein we would look at the fee, new regulations, and household taps, as well as organize the community for maintenance . . . [Also,] we would tell people to plant trees and do something to care for the conduction line, where there was always a problem.”

According to the secretary of the Central Council, there were positive results:

“After the work that was done to fix the project, and when everyone had water, the people then loved us because they saw our work and because we talked with them in the assembly – they know what we do. It’s better for us if people know about our work; that way, they help more.”

In sum, the organization was now clearly defined with respect to its levels of decision making, organs, forms of participation and communication mechanisms. It was now easier to get organized for the work.

Strengthening the power of the local water committees

The auto-assessment initially done by the council members revealed a lack of legitimacy among the authorities and, consequently, a lack of attendance, power disputes from personal interests, and discouraged community participation. The plans made by the council members included strategies to strengthen and improve the authority and power of the local committees and the Central Council.

With the implementation of these plans, the situation began changing. Don Pascual, one of the beneficiaries in Agua Blanca, commented on this change:

“When the committee or Central Council let us know that there are meetings, we all have to be there, because if not, they punish us – they can take away our water for a while . . . The meetings that those on the committee invite us to are good. They say how the water project is going. When it breaks down, they say how much of a fee we have to pay and who is going to work; that’s why we always go to the meeting.”

Doña Estela expressed the situation of the women regarding the change:

“When our husbands go off to the lowlands to work, they tell us that if there is a water meeting, we have to go to find out what those in the committee say. They [our husbands] also tell us that when we want to say something, we have to say it, even if we’re afraid to.”

The work and economic contribution strengthened the identity that the associates had with their water system. This translated into the feeling of ownership among them, as expressed here by Don Reginaldo from Chex:

“We all feel like owners of the water project because we always have to watch what we’re doing so that everything works out well and that we have water in our houses – also because we pay our fee.”

One APAGUA associate in the Tucuna community observed: “We in the community use the water better because our tank always has water and we don’t see it go down.” Another from Río Blanco Chiquito added: “We tell the committee not to sell more new connections; one must think about if there will be enough water for later on – our children are going to need water, too.”

The communication had been strengthened in the meetings and assemblies. Matters relating to the operation of the supply of water were reported on, principally when the system had problems;

afterward, the situation was presented along with possible solutions, and decisions were made together.

Making decisions in community assemblies

The committees of Aguacatán would always meet to make their decisions. In these meetings, the heads of families participated – be they men or women – from the seven villages and hamlets. Throughout the PAR project, the assemblies were often not very productive because other subjects were talked about and because not everyone participated. For this reason, the council members themselves determined some “rules and recommendations” to improve the running of the community assemblies.

This development helped the community assemblies to present water supply problems, look for solutions, make decisions, as well as report on activities and the money taken in and spent. The assembly was also the time to resolve conflicts within the community or with outside people and institutions. Conflicts and disagreements always arose in the assemblies.

These assemblies were part of community tradition, for although their form of functioning is not written down, what is discussed and agreed upon there is respected and carried out. This activity was part of the common law norms of these indigenous peoples. Formally-recognized traditional community leaders directed the proceedings. The assemblies were always held in the Aguatecan language; for those who speak another tongue, the assembly is translated. Don Angel Velázquez from Agua Blanca explained the importance of the assembly:

“The assembly helps the beneficiaries of the water project to realize what activities the Central Council and local committees were doing. The fact that people are aware of problems and advances helps when their collaboration is solicited. They happily give it because they are informed about what it is for. What’s more, it was they themselves who had decided it would be that way.”

On one occasion, an assembly was held to decide what to do with an associate who had broken his back and ended up handicapped. After a heated discussion, it was decided that he was not obligated to work any shifts nor pay for them.

Some of these agreements were written down, but the majority were not. The oral tradition was respected by the community members themselves. The assembly had also come to be a mechanism for social control and pressure for those who violated the regulations or did not fulfill their responsibilities.

Making and applying water regulations

There existed within these communities norms defined by the community itself responded to a system of common law, that is, unwritten laws. Oral tradition – the spoken word – was the law of these communities.

Previously, there did not exist any clear norms or agreements regarding the supply of water. As a consequence, they had had many problems, especially relating to water use for production ends; the amount of consumption; the fee payment period; and the situation of the widows.

The institution that had supported the project construction in 1986 also brought them a well-organized set of written regulations. These regulations, however, did not help these communities much, principally because their content was highly technical and because they espoused a vision different from that of the community. Later, a technician from the community itself made other regulations, but these contained only his ideas. Once again, they did not work out. Likewise, one of the council members drew up some regulations, but because she had not consulted with the community, they too were not accepted and respected.

Don Aurelio Gómez, the ex-secretary of APAGUA commented on the problems:

"We beneficiaries are not familiar with the regulations that we have. We only get to know them and apply them when we become council members. It seems like the council members that made them thought more about their own interests and not about those of the everyone else."

During the assessment process, it came to be understood that the projects lacked regulations that reflected the interests and vision of the associates themselves. Through a slower, more labor-intensive process that applied participatory techniques, the council members started elaborating a document. There were several steps in this process:

1. A list was made of the problems with the supply of water.
2. The key problems were analyzed.
3. Alternatives were sought for regulation.
4. Agreements were established for the new regulations.
5. These regulations, although analyzed and agreed upon among the council members, were also subjected to consultation with the communities to assure that they were in agreement.

The community members now said that, with the regulations that they themselves had made, they had managed to clarify what was the responsibility of the Central Council, the local committees and the project associates. It was also revealed that a small group of associates (a minority) had been adversely affected by the new regulations, given that there were limits stipulated for water use in production activities.

The inhabitants also determined that, within the regulations, they were not to be called "beneficiaries" because that term implied that they only received the benefits of the project. Nor should they be called "users." Instead, the community members agreed to call themselves "associates" because this meant that they were owners of the water system and that they had responsibilities. This feeling of ownership had made them assume more responsibilities regarding the management of the water.

Don Chico illustrated how the assembly continued to be a control mechanism to apply pressure and so enforce the regulations:

"I know the case of a person who has a tap connected on his land but hasn't told the committee about it. If I were to tell him not to do it, he'd tell me to go to hell. It's better if I say it in the assembly. That way, he feels shame and doesn't do it again."

Defining a high-enough fee for the operation and maintenance of the water system

Through problem identification, analysis and internal discussion, the Central Council and local committees – using the participatory methodologies offered by the SER support team – tackled the problem of the fee.

The fee amount and form of payment had been a problem ever since the water system was constructed in 1986. Initially, a fee of Q 6 (US\$.94) per year was established. The problem the council members observed was that the institution that built the project "imposed" a fee without knowing the nature or amount of expenses the system's operation and maintenance would involve. This situation led the council members to determine a new fee of Q 12 (US\$ 1.88) per year.

Once again, the fee showed itself to be inadequate when more serious problems began, especially when conduction pipes broke.

The irregularity in the water service caused some associates to refuse to pay their fees. Without a fee and financial resources, the committee could not operate and maintain the system, much less repair the broken parts. The associates who did pay began to lose faith in their local committees and the Central Council. Soon after, the members of the Central Council resigned one by one.

Once this problem was identified, discussed and analyzed, the council members presented it to the associates in each community. They also took advantage of the opportunity to obtain alternative solutions from each. This activity served as a basis to make a plan to redefine the fee and subject it to consultation.

Following the plans, the Central Council did an analysis in which the operation and maintenance costs were calculated for one year. By comparing the outgo with the income generated by the fees in this same time period, a negative balance was apparent, for much more was spent than taken in. With this finding the Central Council members detailed what things the fee was invested in; they also established the need to define a new fee and plan their expenses annually.

As a result, the Central Council decided to analyze and propose a new fee within the APAGUA assembly and later subject it to consultation with all the associates of the seven communities, detailing the expenses. During this assembly, the associates committed themselves to paying additional fees for repairs, so long as the Central Council reported on for what things the money was spent. It was also established that the fee be reviewed every year.

The system used to collect the fee was improved. Now all the associates paid their fee directly to the local committee. Previously, the local committees held assemblies to remind people of the day and place of collection. For those who did not comply, there were sanctions, such as the temporary suspension of service.

The treasurers of the local committees kept track of the funds obtained through the fee payment. This accounting was maintained in cash books with a list of users that paid and those that owed. The Central Council received all the funds that the committees collected in their communities.

In the APAGUA Central Council, a general accountant was named. Every three months, he made accounting reports to the departmental government as a way to institutionalize the handling of resources within the legal framework established in the country. He would also keep account of the funds gotten through fees and extra contributions. The purpose of this move was to make a general accounting each year of income and outgo, as well as to offer clear information to all the associates.

It was decided that the local committees handle a percentage of the fee collections to attend to water problems specific to their communities, and so not have to recur to the Central Council.

Because the treasurer and local secretary would have to handle money and give reports, it was established that they, as a minimum, would have to be able to read and write, as well as add, subtract, multiply and divide.

Ever since the system began functioning without major problems, the community members have made their contributions through fees and extra payments. As a result, the Central Council currently had administered approximately Q 40,000 (US\$ 6250).

Reforesting the conduction area to avoid landslides

The deficiencies of the water service was due in large part to the rupture of the conduction tubing. This, in turn, caused landslides and erosion on account of the deforestation in the conduction area.

The plans of the Central Council and the local committees proposed the creation of a nursery in Aguacatán to thereby reforest the areas. But this task required much money, time and effort; what was more, they had little experience with reforestation. This activity was not very attractive to the associates since it did not offer them a direct economic benefit.

Responding to this new need, the Central Council of APAGUA contacted the *Unidad Ejecutora del Proyecto de la Cuenca del Río Chixchoy* (UNEPROCH).⁸

At that time, UNEPROCH was going through a difficult time, since its programs and projects had been rejected by the communities of this municipality. APAGUA proposed that a plan could be made through this institution to reforest part of this basin, but it had to be a plan where the association took advantage of the resources of UNEPROCH and not the other way around. UNEPROCH accepted this proposal.

Taking advantage of its knowledge and abilities in the application of participatory methodologies, the Central Council made a forest assessment, a corresponding plan and a timetable that included those responsible for its execution. This plan was subjected to consultation in the community assembly and was approved. Among other things, the plan included forestry nurseries, reforestation and training of forest promoters. The communities involved were consulted on the plan.

⁸ Chixchoy River Basin Project Executive Unity

As a result, forest nurseries were set up with 100,000 plants; 50,000 trees were planted in the landslide zones, an area that was part of the Chixchay microbasin. Also, fourteen forest promoters were trained. These achievements were the result of the participation and organization of the Central Council, local committees and associates, and with the financial, material and technical assistance of UNEPROCH.

Defining strategies for the financial support of water management

Managing the supply of water in rural communities required not only local organizing, technical assistance and human resources, but also financial support. Without economic resources, management would not be easy. Don Abraham Velázquez, ex-president of the Central Council, summed up the situation: "Ideas and plans are nice, and we can go on talking, but without economic resources, they just don't do any good."

Nevertheless, the financial situation had been critical. At times, the Central Council was left without any funds. The local committees did not manage money; record keeping was not the best; and corruption also occurred among some directors. The lack of confidence among the associates grew even more.

Having analyzed this problem, the Central Council moved to improve financial management, with the following results:

- a. The local committees made collection of funds by way of fees and used a percentage for local management.
- b. The local committees and Central Council paid off Q 900,000 (US\$140,625) in a loan from the NGO that built the project, in accordance with the agreement set down.
- c. Collections were made within the seven communities for Q 50,000 (US\$ 7,812.50) to be used for repairs and to pay off a loan from another NGO.
- d. A loan of Q 30,000 (US\$ 4,687.50) was taken out from a financial firm to improve the current system. With their harvest, they would be able to pay it off.
- e. Currently, APAGUA has a bank account of Q 12,000 (US\$ 1,875).
- f. There is now an accountant who has made a plan to improve the financial management of the resources. APAGUA made fixed-term loans to business people and to groups to collect interest and maintain the fund.

These experiences have helped to consolidate the accounting, administrative and financial capacity of APAGUA, and consequently, to bolster the confidence of the associates toward their directors.

Applying the community's knowledge and human resources

In the beginning, when there was no water project, the leaders always thought about looking for an institution that would "make them a project"; that would "hand out financing to them"; that would

“train them to handle it”; that would “bring them regulations”; and that would even “put in some technicians.” Consequently, the institutions only imposed a solution and made the decisions about community matters.

Now the community takes advantage of the new system and manages it, but also continues utilizing its different water sources – wells, rivers, streams – to wash clothes, irrigate crops and water their animals. They do this in accordance with their own agreements, some of which are established in the regulations.

The community’s elders exercise their authority and forms of organization to manage the water, for they are now the advisors to the council members. The community assembly continues being a mechanism for consultation, discussion and collective decision making.

The experience and training that their leaders have received in the way of accounting, organization and water engineering now constitute the basis for permanently maintaining water service of high enough quality for human consumption.

The basis and legitimacy that the community’s common law norms took on now have more validity and written support in most cases. The norms are complied with not because they are written down, but because they have been defined by the community members themselves.

Social pressure is an indispensable element for proper control and management of water. The leaders have also established some formal mechanisms to keep track of and follow through on planned activities. Many of these mechanisms work by means of visits by the leaders, meetings and community assemblies.

One of the biggest achievements has been the use of participatory methodologies and tools. The leaders not only apply these to water management, but also in other community development work. An ex-council member and current worker in the local cooperative provides just such a case: “I was given work in the cooperative because they say that I can handle participatory techniques to work with people.”

Making a community business for the supply of water

With regard to the water project, the leaders and associates consider some basic ideas valid:

1. The project is the community’s; that is, there exists an idea of ownership.
2. It is not acceptable that the municipality assume responsibility for this service.
3. There is a desire to continue managing the project.
4. Management implies expenses that must be charged to the associates.
5. The capacity of APAGUA must be improved.

From these ideas arose the effort to institutionalize the water service, that is, to make it run as a “business.” To do this, APAGUA now has land and a local headquarters where its office currently functions with the minimum requirement of materials – desks, blackboards, benches and water engineering equipment. A general coordinator and an accountant have also been set up as paid staff.

Although no one specifically posed the idea of a community business, it arose as part of the projects activities. Some council members did not think it was a good idea because the associates might have interpreted it as business profitable only to the leaders. The idea of the leaders, however, was to “have a business directed by the community members themselves to permanently provide themselves with sufficient high-quality water at the lowest cost possible.”

Additional accomplishments of the project

With the improved management capability, APAGUA could move beyond their role of supplying water and promote “Integral Community Development” projects benefiting the associate communities.

APAGUA has been invited by the Public Health Ministry to present its experience before the directors of all the institutions in the country’s water sector. Also, the neighboring communities have solicited support from APAGUA to train other committees and follow the process of water management.

The municipality of Aguacatán and other communities have asked the SER support team to help with other processes, using the experience with the seven communities in Aguacatán as a base.

APAGUA currently has cooperation agreements with three other institutions – UNEPROCH, Housing Cooperative, and *Asociación de Desarrollo Integral de Aguacatán (ASDIA)*⁹ – to implement plan to improve water management.

⁹ Aguatecan Association for Intregal Development. This is a local NGO that came about as a result of the same kind of water project in other communities in Aguacatán.

1.3 Sigomere in Kenya: getting organised

Historical perspective

Sigomere Water Supply has had many graduations. The initial project was a piped scheme with a spring as the source. This scheme broke down and was abandoned. The community leaders then approached the Kenya Finland Western Water Supply Programme, which provided several shallow wells equipped with hand pumps and protected springs where appropriate. The third graduation was effected when the community desired and obtained a borehole equipped with an electric submersible pump. The scheme has an extensive piped distribution.

Physical features

The predominant physical features in Sigomere Location include tropical shrubs and gently sloping plains west of the Lake Victoria. The road to Sigomere takes the main Kisumu-Busia road leading to Uganda. Turning off to the north at Ugala, one travels on an all season earth (Murrum-dusty) road to Sigomere market, 10 kilometres from the main Kisumu-Busia road. Sigomere Water Supply is named after and erroneously expected to serve the many villages of Sigomere Location comprising of four sub-locations Mung'au, Got Osimbo, Madungu and Sigomere. This water supply received support from the Kenya Finland Western Water Programme (KFWWSP) and currently serves those consumers that are able to provide themselves with the expensive piping materials to connect them to the trunk mains. This limits water to the few households that were able to buy pipes for the initial connections, which may be several kilometres of pipelines, and also sustain the monthly payment of water charges. The difference may also be seen from the economic status of the various consumers. Those that are wealthy have built themselves modern housing units, while the poorer members of the community still retain the traditional housing units. These poorer households obtain water from traditional improved water sources (protected springs) and also from improved shallow wells with handpumps. These diverse water sources cause conflicts in management as consumers are not loyal to a particular water source and default in payments.

Socio-cultural aspects

The predominant tribe in Sigomere Locations is the Luo tribe with small scale (peasant) farming as the main stay. The English language is widely used as the community has embraced education since many years. Here in Sigomere one can find many elderly people, both men and women, who have retired from active public service. They bring into Sigomere a wealth of experience and expertise that is being wisely used in the management of the Sigomere Water Supply. However, in the past little attention was given to the poorer classes in the provision of water from the piped scheme, but this has changed as more communal water points (kiosks) are being constructed.

History of the project

Like many similar projects the KFWWSP focused on community participation only as it related to the provision of free labour and locally available materials. The planning and decision making was still the prerogative of the support agency. Operation and maintenance was considered only after the completion of the project implementation. Rules and regulations related mostly to project implementation. In Sigomere, the community took the initiative to strengthen their own water supply

management organs including the central management committee. They employed staff to manage and operate the water supply and zonal/kiosk committees to oversee the operation of the water supply in their respective areas.

Physical facilities

The advent of Sigomere Water Supply was a protected spring with pumping units supported by UNICEF in the 1060s. This water supply broke down and was abandoned. However, the desire for clean water supply was existing in Sigomere. When the UNICEF supported supply broke down and was abandoned, the community approached KFFWSP who agreed to support the community by providing shallow wells with handpumps and protected springs. The technology chosen was a borehole with electric submersible pump supplying an extensive pipe network. The shallow wells have individual water committees. The communal water points have water committees too. The consumers draw water from the nearest water source. Many consumers have access to either a protected spring, a shallow well or a communal water point (kiosk).

Community attitude

The access to different water sources is causing laxity among the consumers to support any of them, a fact that is causing hand pumps to remain unattended when broken down. The management of the various improved water sources is not sufficiently harmonised within the Sigomere community.

The stratum of expectations in the community is indeed wide. Those being served by protected springs and shallow wells desire to have piped water supply, without corresponding understanding of the inherent investment and operating costs.

The PAR team

The Participatory Action Research (PAR) team made its first contact with Sigomere in 1994, during a community management workshop held in Kakamega where several community leaders from Water Supplies in Nyanza and Western Provinces of Kenya participated. The representative of Sigomere gave an impressive outline of the Sigomere Water Supply and its management. In 1996, when Sigomere was selected as the fourth community, the PAR team received a very positive reception, owing largely to the earlier contacts and the enlightened committee chairman.

Socio-cultural conflicts

The community management concept narrows significantly in practice to committee management as issues of cohesiveness, within and among community segments hinders meaningful communication.

Community expectations

The larger community saw the PAR team as a donor that will answer to their need to expand the piped water supply to areas not covered by the scheme. It took a considerable amount of time and resources to have the committee understand the need to study/research on management.

Reception by the community

The community of Sigomere Water Supply had little appreciation of management issues as compared to physical improvements. This gave the usual inclination of demand support for physical

improvements especially the desire to extend the piped network to the outlying areas of Sigomere Location. With much reluctance they did start to appreciate the need to study the management aspects of their water supply. Whereas the committee expressed willingness to work with the PAR team, deep down in their hearts they cherished the hope that one day the PAR project would provide physical assistance.

Management aspects

Of the four communities, Sigomere Water Supply has the most exhaustive management organs including a constitution. According to the constitution, the election of office bearers takes place during an annual general meeting. The office bearers are elected from among the committee members who are elected to represent nine zones. Special interest groups are also represented in the central management committee. These groups include religious organisations, schools, government departments of water, health and community development services, the local administration and traders (business community). Women representation is recognised and enforced.

The Sigomere Water Supply is registered with the Ministry of Culture and Social Services (MoCSS), a registration that is common for all water self help groups. This registration is deficient as it does not provide community groups with sufficient legal status to enforce their constitutions. To overcome this obstacle, the Sigomere Water Supply constitution draws from the Chief's Act, which allows for enforcing constitutions of self help groups as long as the individual constitutions provide for the Chief's Act to provide Annual Order on their behalf which must be renewed annually. In Sigomere, prominents carry out Annual Audit of their books of account.

The shallow wells and protected springs, whereas they have individual management committees, do not have constitutions to guide their operations.

Climate setting

A prominent feature in the management of the Sigomere Water Supply is the partnership approach. The involvement of the experienced retired public servants resident in Sigomere, the inclusion of the chiefs, and assistant chiefs, and the involvement of other government departments (water, health, social services) gives Sigomere a capacity to absorb and assimilate issues and aspects such as Participatory Action Research with relative ease.

The community selection process for Sigomere included an initial visit by the PAR team, who met the chairman and the manager seeking expression of interest to participate in the PAR project. The chairman was emphatic and expressed interest on behalf of the community. This expression was provided to the National Reference Group and Sigomere was selected as the fourth community from among several other communities that expressed similar interest.

Follow-up meetings were held to provide explanations on the purpose and intended work of the PAR project. The key aspect of the PAR process was drawing up an agreeing to the work plans with the respective communities. Having obtained consensus with the whole community, problem identification and prioritization was done.

Community diagnosis tools used

The community diagnosis was done by using tools which included household sketches, group discussions, village map, village water, observations and transects.

Where is the community

The use of the village map and village walk gave an overview of Sigomere Location, showing areas that are served by the piped network. Household sketches and transects provided area specific service levels, demands and limitations. The observations during the village walk revealed the existence of other water sources and disparities of service levels within the same area, especially where pipelines radiated to outlying areas from the boreholes. These pipelines always fermented in the home of a prominent community member, who had almost always paid for the investment costs. The poorer community members did not benefit from the piped water supply except occasionally at the benevolence of their neighbours.

Triangulation, a means of getting to the core problem, was extensively used. Information provided by one sector of the community was checked and clarified by a different by a different segment of the community. For example issues seen as crucial by the management committee were cross checked with the community. In this way, the PAR team assisted the whole community to obtain a common and untied view on an issue by consensus. Further, addressing different aspects of the same issue in different meetings helped the community to go from symptoms to the actual causes of the problem. For example the problem of insufficient funds for operation and maintenance was traced back to its main cause, a "lack of metering the amount of water produced". This omission of metering the water produced made the manager and her staff to understate the revenue collections, despite the fact that water consumption for all consumers and kiosks were metered. Further, it was observed that whereas all kiosks were metered, there was no correlation between the amount of money remitted to the cashier from each kiosk and the amount of water consumed at each kiosk. The respective kiosk attendants remit and whatever amounts they deemed reasonable. The phenomenon repeated itself in respect to the individual consumers, who got delayed payments in some cases for up to 9 months, causing enormous cash flow problems for effective O&M of the water supply. This state of affairs existed despite the "Annual Audits".

1.4 Yampaphant in Nepal: Revival of the water user committee

Since 1994, the project "The role of communities in the management of improved rural water supplies" has been implementing Participatory Action Research (PAR). This project has been carried out in 24 communities in six developing countries with support from the IRC International Water and Sanitation Centre, the Netherlands. The project aims to develop methods and tools for both support agencies and communities themselves to promote sustainable community based management of rural water supplies in developing countries. The countries Nepal, Pakistan, Guatemala, Colombia, Cameroon and Kenya were selected to implement the research. In Nepal, the partner organization Nepal Water For Health (NEWAH) has been carrying out the research in four rural communities in Nepal. This is the story of Yampaphant, which is one of these communities.

Geographical situation

Yampaphant Ward No. 8 of Bandipur VDC is at the foot of Bandipur Hill, along the Prithivi Highway that links Pokhara with Kathmandu. The village is surrounded by the Marsyandi River in the north, Andhikhola in the east, Phedi Khola in the west and thin bush towards the south. It is about 130 km. west of Kathmandu, the metropolitan capital city of Nepal. 90 Households with a 544 population are living in Yampaphant.

Socio-cultural conditions

The village has a rich variety of ethnic groups like the Brahmin, Chhetri, Gurung, Magar, Sarki, Damai, and Kami. However, Brahmins and Chhetris are the dominant ethnic groups. The hindus' main festivals Dashain and Tihar Teej are celebrated by Yampa villagers. The strict caste system is still deeply rooted in this community. It was observed that during snacks lower caste people were staying far away from other, so called high caste, people. This was our experience during a community workshop in 1995 in Yampaphant. There is also a strict Brahmin culture. Brahmin people take bath every day only with water. There is not only caste discrimination but prominent gender discrimination also exists. Women work harder than men. Mrs. Mishra explained that except for ploughing and roofing (culturally women are not allowed to do these activities), all work is done by women in this village. Even in their childhood, girls help their mother in household chores while sons are not obliged to share such household activities. An interesting aspect is that women work harder than men but men are the controllers of financial matters as well as the decision makers at home.

There are a primary school and an Adult Literacy Program in the village. There is no gender discrimination in education, which shows that Yampa people are aware of the importance of education. According to Mr. Hari Narayan Paudyal, a community member, the literacy rate of the young generation (below 40 years of age) of this village is nearly 100%. Eight people from Yampa are working as teachers.

Economic conditions

By observing the situation, anyone can easily identify that there are middle class people are living in Yampaphant. Flat cultivated land with a gentle slope towards the north, regular running water in the irrigation canals, and all seasons different green vegetables everywhere are indicators that agriculture is the predominant occupation and main source of income for the village. Always busy

and devoted farmers earn about NRs. 30,000 to 80,000 per year from vegetable selling alone. Both the technical support from the Agriculture Research Centre (which has provided knowledge and skills for improved farming and vegetable growing at a large scale for the past few years) and the efforts of villagers have equally contributed to the economical situation of the village. Dairy and teaching are also secondary income sources of villagers.

Community facilities

There are some basic infrastructure facilities in the Yampa community. In the primary school, young boys and girls are being educated without any gender discrimination. Unceasing water in irrigation canals has provided water for irrigation and other purposes. The Lumle Agriculture Research Centre (LARC) trained every farmer of Yampa in agricultural production. If someone enters the community, he/she will see that most of the people spend their time in the field from sun rise to sun set. Devoted farmers have been able to supply a local production of milk by establishing dairy within the village. These infrastructure facilities are a positive aspect of the community, but at the beginning of the PAR project nothing was found related to the management of the water supply system.

The need for struggle

If a person faces a problem, he or she will try to solve that problem, or try to move far away from it. He/she will struggle until the desirable goal is achieved. Some conditions in Yampa have pushed the community people to identify a way to improve the present situation of water supply. Thus the situation gave challenges to the Yampa people.

Health and sanitation practices and facilities

There is no health post within the community, people use the traditional healer for treatment. Yampa people are not far away from health facilities but they are also superstitious. Dumre and Satrasaya are the nearest places for medical treatment. There used to be a prevalence of skin diseases, diarrhoea, dysentery, and worm infection. Community people were forced to use stream, spring and irrigation water for all purposes. A community woman reported that they had no choice left rather than to drink polluted water.

There was not a single latrine in the community. Open field, streams and the jungle were common places for defecation. Thus the health facilities and practices of Yampa villagers were far away from satisfaction, even for an ordinary person.

The traditional community management system

During the community diagnosis, the former chairman of the Water Users Committee, Mr. Bishnu Ghimire, explained that ideologically and for many other reasons, people of this village are not united. Some people even tried to disturb the collective village development efforts. However, there are some supporting social systems which are performed jointly, such as joint farming, irrigation, parma (exchange of labor), pooja, and forest management. Likewise, there are other social systems like Katuwal (village messenger), Kami (blacksmith) and Damai (tailor), who are paid in kind from each household on a yearly basis. This shows that the traditional community management systems weren't so systematic and well-managed. Similarly, the community people weren't very cohesive

like other tribal or ethnic groups. However, the study also showed that there existed some traditional community management systems like in more or less every human settlement.

Water supply and sanitation status

The Yampaphant water supply system was implemented by the Nepal Red Cross Society (NRCS), Tanahun. In 1987, Yampa villagers requested for a drinking water project to the Red Cross, and in 1990 a detailed survey was conducted. In 1992/93, the Red Cross constructed a water supply system with 14 taps.

There is a story behind this water supply system. The actually surveyed source was Andhimul, which is bigger than the present source. People dug a pipeline of about 300 meters, but a dispute aroused about this source with the people from Sarasaya Phant, a neighbouring village. The problem couldn't be solved by local people nor by the district administrative office. So the Yampa people immediately searched for an alternative source and identified the present one. However, the capacity of the source was insufficient. Therefore the water supply used to be open for two hours in the morning and two hours in the evening. The community people blamed that this project was implemented by Red Cross for a training purpose only. There were 21 persons trained as technicians.

In project construction phase, a Water Users Committee (WUC) with 13 members was formed, but women participation in the WUC was nil. However, the men and women were equally participating in physical work. Some people raised questions about the selection of the location of the taps. Anyway, the project was completed in 1993 by the Nepal Red Cross Society. People collected Rs. 2,000 as a donation for the operation and maintenance fund and Red Cross matched this with Rs. 500. The money was deposited in the bank. One Village Maintenance Worker (VMW) was trained by NRCS.

The water supply project also incorporated a sanitation program and encouraged community people to build a pit latrine. The NRCS provided 50% of the cost as a subsidy for the construction of pan slabs for the latrines. Very clever people of Yampa didn't want to miss that golden opportunity. The former chairman of Water Users Committee, Mr. Bishnu Ghimire, said that more than 60% of the households constructed a latrine during that period.

The chairman also explained that during the construction period, WUC members were very active. However, after completion of the project the committee became inactive. The committee also formed some rules and regulations. The villagers decided to collect Rs. 5/house/month for a watchman, although some people refused to pay that money. If somebody asks to Yampa people the reasons why they refuse to pay the money, the villagers answer that there was no adequate water, water was not supplied to all taps (technical default), and some taps were not appropriately located. This resulted not only in no collection of the water tariff, but also the active committee became inactive.

The above mentioned situation gave the pressure to the Yampa community to change the road and find a better way for sustainable management of the water supply system.

PAR: An answer to sustainability

When we started

NEWAH was looking for partner communities for the PAR project. Yampa, on the other hand, was suffering from poor management of the water supply system. Since the PAR project aims to meet the situation of community, the PAR team further explored Yampa by visiting the community in early 1995.

To understand the real situation of Yampa, the team met with the WUC chairman Mr. Ghimire, ex-ward member Mr. Keshab Ghimire, and Mrs. Sumitra Bhattarai. Besides those meetings, the team made a walk through the village to observe the situation.

Water supply was not adequate for 90 households. The distribution of water was also unequal. One tap seemed to be very tired for 2 years standing without water. Nobody wanted to go to that tap because the tap was without water and villagers found water close to the tap. One trained VMW went away from the village for a better job. Some people raised their voice that without a regular and equal water supply nobody wants to pay money for the watch man. WUC members became worried because nobody followed their decisions and nobody wanted to listen to their speech. This was why the WUC became inactive. Hardly any meeting of WUC was held after project completion.

The team collected this valuable information concerning the actual situation of the water supply system. Then the team ranked the visited communities with criteria and discussed these with National Reference Group (NRG) members. Based on the information and suggestions of the NRG, Yampaphant was selected as partner community for the PAR project.

PAR in action

By aiming to enhance the capacity of the community concerning the management of the Yampa water supply system, the PAR team started its activities by giving an orientation on PAR. The old WUC dissolved after the first meeting with the community and a new committee was formed, consisting of nine members including 2 women and 2 advisors. They also selected two male PAR volunteers (Vol) to work as a bridge between the community and the PAR team.

In the first mass meeting, the PAR team tried to clarify the meaning and intentions of the PAR project to the community. The team explained their expectations, and discussed the expectations of the community, also explaining the limitations of the PAR project. As an example, a poster showing chick hatching from an egg was shown to the community, and people were asked what was expected from the hen. The smart people of Yampa easily gave the answer that the hen gives warmth and energy until the time the chick comes out of the egg. The hen symbolizes an external support agency, and chick's effort to come out symbolizes the community effort. In the first meeting it was also decided that the new formed WUC would be responsible for system management.

Challenges for the PAR team

At the very beginning, working in Yampaphant was a challenge for the PAR team. The people of Yampa are always busy with their agricultural work. It was very difficult to plan a time for the meetings. The team planned meetings on religious days, such as Janai Purnima and Dark Moon Day

for meeting and discussion sessions. The PAR team had to spend more time, energy and resources in Yampaphant to bring them together than in the other three communities. The PAR team organized a one day workshop on government policy, community participation in system operation and maintenance, and the need and importance of women participation in decision making. Water quality testing and survey as well as the design for new sources were also done. With great efforts of the PAR team, Yampa community carried out the PAR processes as smoothly as the other communities.

By using various PRA tools, they identified 14 problems. Inadequate drinking water supply for the total population, a lack of rules and regulations, and the lack of a trained maintenance worker came on the problem priority list. They also developed problem solving strategies, an action plan, and monitoring indicators of community activities. Through regular follow up visits, motivation and support assistance, training and workshops, the Yampa people, the WUC members and the PAR volunteers became more aware about the importance of the PAR activities. Mr. Rameshwor Lamichhane, the secretary of the WUC, said to PAR team " *We reformed the Water Users Committee, there are now 13 members, one representative from each tap. We think that if the WUC represents all taps, it will be easy to manage the system and to implement the decisions of the WUC.*"

A symbol of sustainability

Capacity building

An ultimate goal of PAR is to enhance the capacity of communities in the management of their water supply system. Many activities have been implemented during PAR process to achieve this goal.

The first PAR volunteers training in 1995 emphasized the aims, process and phases of PAR, and the use of some PRA tools. Mr. Ganesh Dhakal and Purna Bahadur Thapa were participants in this training. They prepared their role and responsibilities, and a seasonal calendar and social map of Yampaphant. The PAR team developed a foundation by training two key persons as PAR volunteers.

After the training, the PAR team immediately initiated and organized a community diagnosis phase. The two PAR volunteers didn't stay silent, they played the role of facilitators during the community diagnosis. They discussed, verified and finalized the seasonal calendar and social map which they had developed during 1st PAR volunteers training. In the community diagnosis process the PAR team used various methods like focus group discussion, interview, observation, transect, ranking exercise, social map and seasonal calendar, which all gave more emphasis to the involvement of the community people. They identified their own problems, analyzed them, and developed problem solving strategies (PSS). During the PAR process it was realized that only two male PAR volunteers would not be sufficient to mobilize the whole community. Thus, in the second PAR volunteers training, six PAR volunteers, including 2 women, participated. The main purpose of the training was to develop their capacity in helping the community people by facilitating the implementation of the PSS. After the second PAR volunteers training, PAR volunteers organized a community workshop on the development and experimentation of PSS, which they had prepared during the training. One of the PAR volunteers played the role of facilitator in this workshop.

In order to strengthen the Water supply management system, a five day training for WUC members was organized on leadership, communication, group management, financial management and proposal writing. Mr. Rameshwor Lamichhane (secretary of the WUC) said to the PAR team, while showing their up to date ledger and account book: *"this training is very useful and it also helps a lot in financial management and record keeping"*. Similarly, the training on the importance of documentation and systematization, and the importance of hygiene education in water supply, has helped the community people to be more aware on systematic documentation and to promote sanitary behavior. After this training, taking minutes and record keeping is also being promoted. Mr. Khil Prasad, chairman of the WUC, reported to the PAR team how he had been motivating the people who do not have a latrine to construct one. In the beginning, he tried to motivate them but they didn't listen. They just only gave the answer *"yes your suggestion is right, we will build the latrine when we have time"*. He was thinking how to solve the problem. One day he thought of a idea and went to a lower cast family who didn't have a latrine. He politely said to house owner: *"You have no time to build a latrine, today I am free, I will dig a pit for your latrine."* He also asked where the appropriate place for the latrine would be, and he started to dig the pit. The house owner felt ashamed by the polite behavior of the chairman from a high caste family, and told the chairman *"give me the tool I will dig the pit and build a latrine"*. Similarly, during the WUC meeting on the 24th of May it was decided that the rest of the households who did not have a latrine yet should build one, and around each tap, a of tap stand cleaning should be developed as soon as possible. The WUC vice chairman, secretary and coordinator of each tap took the responsibility to motivate and supervise the activities. This was the positive effect of the hygiene education training.

Various trainings, workshops nad exchange visits have provided the community a forum for sharing, exchanging of ideas and experiences, and picking up new ideas to implement in their own community. These activities were also part of capacity building. The exchange visits to Syangja and Kaski Districts proved to be a good opportunity for the Yampa people. They visited 'mother group' activities a well as a managed water supply and a well managed community forestry scheme. After their visit they organized a meeting to give feedback and sharing their observations. Mrs. Sabitri Tiwari, former chairwoman of the mother group, shared her impression with the PAR team during a community workshop in 1997: *"I was present in that meeting. During our observation visit I observed and listened to the mother group activities. I realized that women can do something. After that I discussed with the women of Yampa to form a mother group. They agreed with my idea, and we formed a 13 member Executive Board Committee in 1996. There are 48 general members. We decided to collect Rs. 30 as a membership fee and we are collecting Rs 5/month from each member. In the future we have planned to help in the construction of the road and the temple in our village by using this money."*

The intra-project exchange and observation visit in Lele by the Yampa team gave the opportunity to pick up new ideas to improve the existing water supply system. Now each tap has a regulator that mentions the water flow in Yampa. They have further added an additional source, and constructed 3 taps through their own efforts.

No success can be gained without effort

To sustain the water supply system, Yampa community has been trying various options. One vivid example can be seen concerning the collection of the water tariff. At first the community decided to collect Rs. 5/month from each household for the watchman. Some people refused to pay because of insufficient and unequal distribution of water and because of the inactive WUC. When the WUC

added an additional source they decided to collect Rs. 10/month from each household. However, the water supply was still unequal and insufficient due to problems with the new source. The same case was repeated and therefore some people didn't want to pay the money. The WUC also found it difficult to visit all households regularly to collect the water tariff. Even then the WUC didn't get frustrated and tired of it. The committee realized that the decision they had taken wasn't as practical as they thought. They repaired the system and decided to collect Rs. 100/year from each household. Now the WUC became successful.

The PAR team also saw the struggle of the community and thought about how to support the community to sustain their effort. NEWAH developed a user card for the collection of the water tariff, which was provided to the WUC together with a big ledger book. Then the community agreed to raise Rs 10/month from each household by using the user card. Since the WUC had bitter experiences with previous household visits, they selected one coordinator from each tap and gave this person the responsibility to collect and manage the water tariffs. Mr. Khil Prasad Lamichhane, chairman of the WUC, said *"The user cards are very useful to keep the record up to date. The financial system has become more transparent and official. We also appointed a watchman and decided to pay him Rs. 3500/year"*.

Someone who sees the effort of the Yampa community to sustain their water supply system by experimenting one solution after another will learn a lesson that *"Don't ever lose hope for there is always a solution to every problem. The only thing we need to do is experiment with the other alternatives when the first one fails."*

Their present facilitation practice in workshops, trainings, meetings and discussions indicates that the community people of Yampa have developed their facilitation and leadership skills. The registration of the constitution, a request to the Red Cross to design and estimate a new water source, and the process of dairy registration show that the community is able to coordinate with various organizations when necessary. Community people have a greater opportunity to build their research capacity by implementing the Lumle Agricultural Research and Participatory Action Research.

Management of the water supply system

The above mentioned facts of capacity building indicate that Yampa community people are able to handle their water supply system by their own effort. The existing WUC and PAR volunteers are active and trained. Mr. Rameshwor said *"We learnt a great number of lessons during the PAR process. Humbleness and patience are very important aspects in social activities. If the work is done in consultation with the community people, there will be great cooperation and no obstacles and difficulties in the process. Identification of needs is very important, needy households are ready to donate for the activities which benefit them."* Mr. Khil Prasad Lamichhane, chairman of the WUC, said *"Technicians aren't all knowing. They too can make a mistake, so local knowledge, experiences and skills should be also considered. The community has bitter experiences by technical problem created at the intake of the new source."*

Because of the great effort of the community and the regular support of the PAR team, now one can easily see some of the improvements of the presently well-managed water supply system. The WUC of Yampa sent a record of minutes: *"To sustain the management of the water supply system, we have decided to conduct regular WUC meetings on the 1st Saturday morning of every month."*

During the 4th PAR volunteers training, they decided to organize regular mass meetings on a yearly basis. Regular water tariff collection shows that the community has realized its importance. Up to date record keeping and deposits of collected money in the bank indicate that there is transparency in financial matters, and that they are able to manage the money for system repairs. After a long and appreciative effort, they have succeeded to register the constitution of WUC for legalization. Now the WUC is officially legalized. They have authentic rules and regulations. Therefore, if someone raises a problems or obstacle in the management of the WUC, he/she will dealt with according to the law. They selected one coordinator for each tap, and gave this person the responsibility for regular water tariff collection and routine tap stand cleaning in consultation with the users of the tap.

The above mentioned are capacity building activities and efforts of the community people to manage and sustain of their water supply system. Can we now say that these are a symbol of sustainability for their water supply system management?

Community effort towards sustainability

It is important for NEWAH, the PAR team, IRC and DGIS to know what have been the efforts and activities of community people to achieve a sustainable water supply management system during the four years of participatory action research. For this purpose, a final participatory community evaluation at Yampaphant took place at the 29th and 30th of October, 1998. Ms. Renuka Rai (social Division Chief) and Ms. Laxmi Paudyal (Training and Research Officer) were appointed to evaluate the PAR communities Yampaphant, Tanahun, Lele and Lalitpur. Similarly, Mr. Raju Khadka (Asst. Training and Research Coordinator) and Mr. Mahadhab Bhattra (sociologist) took the responsibilities of evaluating the other communities, being Rangapur, Rautahat, Gajedi and Rupandehi.

The team headed for Yampaphant from Kathmandu in 29th Oct. at 12 noon. and arrived in Yampaphant at 4.15 P.M. The team met Mr. Khil Prasad Lamichhane (chairman of WUC) and Mr. Rameshwor Lamichhane (secretary of WUC / PAR volunteers) and briefed the objectives of this visit. They informed us that all most all villagers were busy with harvesting, so it was difficult to conduct a mass meeting in a day's time. By considering their suggestion it was decided to conduct the mass meeting in the evening after dinner. Mr. R. Lamichhane started to walk through the village to convey the information on the gathering.

The meeting started at half past eight. Twenty-two people including nine women were present in this meeting. At first R. Rai explained the objectives of the meeting and requested them to share their opinion or other feelings openly without hesitation. The responses and opinions of the WUC members, PAR volunteers and water users are given below respectively.

1. What is the history of the water supply system and what sort of activities have they been implementing?

The historical trend was used to recall the history of water supply system. Community people selected Mr. R. Lamichhane for writing the historical trend of the water supply system. During this discussion women group expressed that

“We can't finish to describe our trouble on water problems even within ten days. We used to spend two hours to get one Gagri of water. You (PAR team) need to stay more then ten days to listen previous problems which we had to face to get water.”

After half an hour exercise, Mr. R. Lamichhane presented the historical trend to the group. This is the version of villagers what they prepared and presented:

- In 1992/93 the water supply system by Nepal Red Cross Society was completed.
- Water at the source decreased and in 1993/94 we started to search for alternative water sources.
- In September 1995 we made contact with NEWAH and started the Participatory Action Research.
- Experimenting of various means and alternatives for sustainable water supply program.
- Decided to add a new water source to improve the water supply system in March 1996.
- Completed the construction task of new source in June 1996.
- Formation of a permanent Water User Committee.
- Participated in various training activities and exchange & observation visits, and implemented what we observed and learned.
- Appointed a regular male caretaker in 1998.
- Decided to regularly collect Rs. 10/month for each household.
- Bought the land for a reservoir tank, cost Rs 4,000.
- Registered the constitution of the WUC at the District Administrative Office, we re-newed it in 1998.
- Distributed the user cards for regular collection of the water tariff.
- In 1998 we gave a number of taps and selected a coordinator for each tap to regularly collect the water tariff for their tap.
- In 1997/98 we constructed 5 additional taps through the effort of the users.
- In May 1998 we repaired the intake of the new water source.
- In 1998 we installed a regulating valve in each tap.

2. What were your objectives to participate in PAR ? And did you achieve these objectives?

The community people expressed that they participated in PAR by hoping:

- to get safe drinking water untill death.
- to have a regular, safe and sustainable drinking water supply.

Regarding the achievement of these objectives, the villagers said:

- We have achieved 75% of our objectives. We aren't able to regularly supply water from the newly added water source so far. Therefore we haven't been able to achieve the 25% of our objectives.

3. What were the main problems you identified during the community diagnosis?

This question was mainly asked to PAR volunteers and WUC members by using focus group discussion. Mr. Kil Prasad Lamichhane (chairman of the WUC) said that they had identified 12 problems. The community people easily mentioned the two major problems identified: inadequate drinking water supply for the total population, and the absence of rules and regulations regarding the water supply system in the village.

Observer comment

Actually the community people identified 14 problems during community diagnosis. Among these problems, they prioritized the three major problems. But in the process of community evaluation they didn't mention one major problem i.e., lack of trained maintenance workers.

4. What were the problem solving strategies you developed?

- We searched for a new water source, identified it and constructed the water supply system.
- We did not have a legal WUC, so we discussed with a lawyer and he advised us to prepare a constitution. We prepared the constitution of the WUC and registered it. We needed regular follow up during four months to register the WUC. After the lengthily process of the District Administrative Office, we were able to register the constitution of the WUC on the 16th of June 1998.

What do you feel about the effectiveness of constitution ?

- Untill now we did not need to apply/use the constitutions' law, so we don't have any experience with it.

Lesson learned

- We registered the WUC, we are in a strong position from our side and we are satisfied about it. But in the other hand we can't do anything or it may not be useful and effective only using laws, public awareness is the most important aspect.

5. What are the strengths/positive aspects and troubles you feel during the experimentation of the problem solving strategies ?

Strengths/positive aspects:

- We now have an alternative water source to improve the situation of inadequate water supply.
- All villagers are united and equally participated in the construction of the new water source.
- We are able to supply water in all taps by using a regulating valve.
- We have been able to register the constitution of the WUC.

Troubles :

- We had a very big problem to register the constitution of the WUC due to the new system and the staff of the District Administrative Office, who are not familiar with the rules and regulations of WUC registration. Transfer of government staff has created another problem. However with untirable effort and regular follow up we are able to register the constitution of the WUC.
- The demand for water is increasing. All households want to build a separate tap in their own house but the source of water is inadequate for the total population, and the newly added water source is not regular.

Users comment to the WUC:

- During the mass meeting, one user commented that the secretary and chairman of the WUC are very active in social activities, but some members of WUC are not so active. He said if the 90 households of Yampa become active, our management system will become sustainable. The women's group further added that if they are opportunities for training, they are ready to go but they are not actively involve in community activities.

6. What are the achievements you have reached after experimenting the PSS?

- We registered the constitution of the WUC, so we are legalized.
- We are able to collect the water tariff on a regular basis.
- We constructed the new water supply system and are able to supply the water to all taps.
- A watchman is appointed for regular care of the water supply system.
- Improved sanitary conditions in the village as well as an increased number of latrines.

7. What are the strengths and weakness of four years research program and what are your suggestions concerning it?

Strengths:

- It increased our awareness in the water supply management system.
- We feel ownership of the program and we have become attached to the water supply management system what we are doing.
- By regular follow up, the PAR team pushes us and we have become more aware on how to improve our management system.

Weakness:

- It takes time of villagers.
- It is a burdensome and heavy program.

Suggestions:

- The research program doesn't have any disadvantages. It teaches new lessons. By this program people also become more aware.
- We just implement some problem solving strategies but we don't have any opportunity to see the effect of this.

8. Is your water supply management system improved or not by the help of four years of research? How is your management system is improved?

Our water supply management system is improved. We added the new water source to improve the inadequate water supply. We now use a regulating valve for equal distribution of water to all taps. It is working well. We have a system of up to date record keeping and meeting minutes. We have legalized the WUC by registration of the constitution. We appointed a regular watch man. We distributed the water user cards for regular collection of water tariff. But we find it quite difficult to collect only Rs. 10/ month for each household because the villagers are ready to pay and help any time if we need more financial or other support. So we think it will better to collect the water tariff on a yearly basis. Actually we don't decide about it, it is just our thinking.

10. What is your future plan?

We feel that a big problem is to supply water regularly from the new source. We are thinking whether we should build a new reservoir below the old one only for the new source, and if it will supply the regular water. So we think to build a reservoir. But we will request NEWAH for financial and technical support.

11. Do you want to disseminate your experiences and do you want this type of research to be carried out in your neighboring villages and other villages?

The villagers quickly gave the answer that they want this type of research to be carried out in whole of Nepal not only in our neighboring' and relatives' villages.

Do you believe that the Mother Group can raise seven lakhas by the SAPTAHA (worship of God and Goddess during seven days) Program?

This is not a joke but the real story of the Trishakti Mother Group in Yampaphant. The mother group was formed in 1996 and registered on the 20th of July 1997. The old committee dissolved and a new committee of 13 members was formed. Mrs. Sabita Lamichhane was selected as chairperson of the newly formed Mother Group. Rs. sixteen thousand, two hundred and fifty two was collected by the Mother Group through Deusi Bhailo, a singing and dancing program. According to their previous plan, they used one thousand five hundred and fifty rupees for village road construction and improvement.

Recently, they conducted a Saptaha Program during the 2nd to 8th of October 1998. With this program they collected Rs. six lakhas and thirty eight thousand in the form of cash, crops and land). Mr. Rameshwor Lamichhane said we did not yet collect all crops, cash and land now, but the people gave the promise and signature on paper. But we have one lakhs cash in our hand. He further added that we need to give more time to collect and manage the profit of the program. The chairperson of the Mother Group said that they had already announced to buy an ambulance by the profit of Saptaha. So they are planning to buy an ambulance when all cash and crops are collected. She said one person of Yampa donated land, crops and cash worth of Rs. seventy-four thousand. We are also thinking to build a garage for the ambulance by using the land provided by the Saptaha program. This shows that Yampa people are capable and get united to manage any social and developmental activity if they really want to do so from the bottom of their heart.

Conclusion

The present situation of Yampa is different than the past one. Community people are busy in farming, however they are more interested in social activities. They have been experimenting one PSS after another for a better community. Do you want to see what they will be doing in the coming years? Can you wait patiently and watch what will happen in future wit the Yampa water supply management system?

1.5 The PAR approach in Rangpur, Nepal

Background

From 1994 to 1998, IRC, the Netherlands, together with six partner organisations in six developing countries in Africa, Asia and Latin America, have carried out a participatory action research (PAR) in selected communities on community management of rural water supplies. The action research was funded by NEDA, the Dutch Government, and trusted with a mandate to set in motion a joint cooperation process involving External Support Agencies and developing countries to develop approaches, methods and tools to enhance the capacity of rural communities, and thus to optimize the efficiency and effectiveness of sound management practices to manage their own water supply systems with appropriate back up support and guidance in a sustainable order.

The four year (1994-1998) project took place in 4 different rural communities in each of the countries. The communities had already been functioning and self-managed water supply systems and service levels that represented a range of environmental, socio-economic and cultural conditions as well as variations in management performances. The project therefore systematically assessed a number of typical problems which dealt with current management practices and understanding on community-managed water supply systems and addressed the most effective approaches to manage their own water supply systems for long-term sustainability.

In Nepal, the participatory action research was undertaken by Nepal Water For Health (NEWAH), a national NGO working in improving the lives of rural people of Nepal with a provision of safe drinking water, health education and sanitation facilities. The action research took place in 4 rural communities, being Lele and Yampa with gravity-flow systems and Rangpur and Gajedi with shallow handpumps systems.

This following case study shows how community management of a rural water supply system improved in the village of Rangpur, which was one of the research communities in PAR.

Rangpur Utterbadi tole: an introduction

Rangpur Utterbadi tole, which consists of wards 1,7 and 8, is a part of Rangpur VDC of about 1934 persons (300 households) in the terai region about 300 km. south from Kathmandu, the capital of Nepal. Rangpur lies in Rautahat district, Narayani zone of central development region. The district headquarters is in Gaur, which is about 40 km. Away, and the nearest road head is Chandranigahpur, which is about 15 km. Far away from the community.

The community comprises of Tharu, Danuwar, Teli and Baitha. There are also Brahmans, Chhetry, Newar and Rai who are migrated from the hills. Tharus is the main ethnic group in the community.

Rangpur is an old settlement with a compact cluster. Most houses are made of timber and mud with tile roofs. They live in a very compact settlement along the village path and keep their cattle on the roadside.

The main occupation is agriculture. Rice, wheat, maize, potatoes, mustard, sugar cane and tobacco are the main agricultural products. - Besides agriculture, some people holds Government jobs and some goes for daily labour works. - The economic status of the people varies from landless to landlords. Poor landless people (mostly Musahar, one of the schedule caste in terai region) earn money for their livelihood by daily labour works, whereas middle class people have their own lands to produce enough food for their family throughout the year. Few rich people have surplus grains and they usually sell them at the local market.

There are one secondary school and 5 primary schools throughout the VDC. The literacy rate of men is higher than that of women. But now there is a growing awareness as most children go to school. However, the Musahar children and a few girls are seen working at home helping their mothers. A few years ago, an adult literacy class was conducted by the district education office and through a local based NGO Jana Sewa Youth Club with PACT assistance emphasizing for women.

The other significant feature in the community is caste discrimination. There is a small cluster of Musahar caste that are considered as schedule caste and untouchable. They do not have their own land. Their landlords provide them a separate place to live (a bit outside the village) and they work for the landlords (like bonded labour) in the field.

History of water supply and sanitation

The most common water sources are traditional wells and rivers, which people have been using since unknown time. These water sources still exist in the community and are used for watering cattle and washing clothes.

Development of Rangpur's water sources began in 1992 and was completed in 1994. Nepal Water For Health (NEWAH) provided technical and financial assistance to implement a water, health education and sanitation programme in 1992. Community members had requested this programme through a local NGO, the Jana Sewa Youth Club, who applied to NEWAH. The request was further followed by a feasibility study for implementation.

72 Successful boreholes fitted with shallow handpumps were installed throughout the VDC, among which 11 handpumps were installed in Rangpur Utterbadi tole inwards 1, 7 and 8.

A water committee called PMC (Project Management and Maintenance Committee), representing members from all wards, and a sub-water committee for each handpump were formed prior to the construction. The responsibility of the water committee was to implement the programme and take management responsibility for the operation and maintenance of the whole system. The handpump sub-water committee's responsibility was to repair the individual handpumps default, make handpumps beneficiaries aware on hygiene education, keep handpumps and surroundings clean, and raise maintenance funds. Each handpump sub-water committee consists of 3 members; two of whom are female health volunteer and maintenance care-takers during the project.

The water committee, health volunteer and maintenance caretakers had received basic training on management, hygiene education and minor repairs of the handpumps. A toolbox was also provided to each individual handpump caretaker.

An initial amount of Rs. four hundred was collected from each handpump prior to the programme and deposited in the bank account for the maintenance of the handpump at the beginning. But now the community is suspicious about the funds, as they do not know who is holding the funds. Spare parts were provided by NEWAH for the time being, and the community shared cost to purchase it.

A sanitation programme was also incorporated subsidizing latrine components. However, the progress in this regard seems to be unsatisfactory as most people still defecate in open field and the river.

Challenge for change

Despite of the successful community participation and implementation of the project there was little success in hygiene and sanitation practices, and the community still has some problems as their motivation and interest is dropping since there were no any other activities. These problems were being directly related to their performance in the management of their water supply systems which include: inactive committee, limited O and M funds, rush in hand pumps, no experienced technician to tackle handpump major defaults, high iron content in water, open field defecation practices, stagnant wastewater, and inadequate policies and legal frameworks of the committee.

These problems were little but can lead to the uncertainty of the system in the future. And ultimately the people realized that they had to change the road to where they were moving.

PAR - A new start

Participatory action research was a new attempt which came to Rangpur in early 1995 and has played a crucial role in the improvement of their water supply systems. A general meeting was called and briefed the community regarding the main objectives of the project. Feedback was about a general consensus among the villagers in participating in the PAR.

PAR was a joint effort in which both the community and the PAR team have participated actively throughout the development process starting from the community diagnosis, to the experimentation of strategies developed and sustaining the process. PAR offered the community an opportunity to gain experience and contributed to finding creative and sustainable approaches to improve their water supply systems. PAR was a learning process for community people as well as for the PAR team: learning from experience of social action.

PAR placed a strong emphasis on participatory and gender-sensitive appraisal and needs assessment methods. It used both qualitative and quantitative data collection methods on system performance and service such as discharge and water quality, breakdown rates, costing, local organisations, and socio-economic characteristics of served and unserved households.

During a planning workshop in the Netherlands the research team jointly developed the research approach and its operationalisation. In summary, the following major steps were followed:

1. Community diagnosis: situation analysis, needs assessment, problem identification and identification of possible solutions;
2. Experimentation: development and testing of problem-solving strategies methods and tools, including monitoring and documentation of results;

3. Evaluation and sustaining the process.

Planning as partners

Once the community agreed and was involved in the process, all major decisions were made in close consultation by the community itself and the research teams. The first attempt was made when a wateryard committee of ward 1,7 and 8 was established, which properly represented the members from these wards, including the involvement of women in the committee. The committee was comprising 9 members, 3 of whom were women, and a 3 member advisory body to guide the committee. The research team also advised the community to select volunteers (PAR volunteers) to carry out research at local level and to function as an important channel of communication to inform and facilitate the community and the committee to carry out activities in all stages of the PAR project.

Once the committee and the PAR volunteers were established they took over responsibility in managing their water supply systems. The success of local decision-making had been proven by the wide variety of solutions found.

Community diagnosis opens community's eyes

Community diagnosis was a very important phase in the entire process of PAR, whereby information was collected about the community and its environment, using a variety of methods and tools. Since PAR aimed at building the community's capacity to identify and implement problem-solving strategies, maximum community participation was encouraged to increase awareness and self-confidence towards possibilities for improving existing problem situations.

Participatory diagnosis helped the community to describe the situation in the village, and the tools used gave community members an opportunity to reflect on the situation, which leads to the joint formulation of conclusions. This resulted in that the community felt owner of the information, owner of the analysis and responsible for solving the problems identified. Methods and tools were chosen which were relatively simple. Visual aids were used to be controllable by community and to stimulate participation. Feeling owner of the information and of the process, people more likely assumed responsibility for implementing the activities which derived from the strategy.

Participatory action research thus fits very well in a project aiming at sustainable development. It looks at ways to stimulate and enable the improved management of water supply systems.

Community diagnosis helped the community to:

- assess existing management performance;
- get a preliminary understanding of the socio-cultural situation, including gender aspects, related to the management of water supply systems and;
- assess physical conditions related environmental aspects and general sanitary conditions.

Also consensus was reached on priority problems and commitment towards the implementation of possible solutions that went beyond trying to get additional handpumps. Problems were solved by the project with supervision of NEWAH's technical staff.

Indigenous knowledge and experience with past experimentation (also in fields other than water supply), as well as ideas from outside the community were explored, since they could be part and

parcel of the promising solutions. The outcome of the community diagnosis was not limited to insight in the above mentioned fields, but also included improved skills of the community and research teams to identify problems, to understand root causes and effects, and to detect promising solutions. Increased awareness, self-confidence, trust and appreciation as well as meaningful community participation were additional outcome which were as important for action development as the facts-findings.

Finding the right solution

A story of "Chicken and egg" had encouraged the community and provided a list of possible strategies to solve the identified problems, which was followed by an "agenda for change". After selection of the most promising problem-solving strategies, community action plans were made to start experimentation.

The purpose of experimentation was to develop management solutions that are reliable and affordable and which can be monitored and evaluated by the community themselves. The aim was to strengthen local capacities (e.g. skills, self-confidence and organisation) in order to plan and design experiments on their own initiative.

One example could be the regular collection of water tariffs. Since, there was a limited fund, the community first decided to collect funds (two Rupees) on a monthly basis from each household. But this strategy did not work out and the community finally decided to collect O&M funds in a seasonal basis twice a year and this worked out well. The collected O&M fund was then deposited separately in a bank account combining two individual handpump users. A user payment card was developed and is in use.

The long road to success

Successful community management does not happen by accident. It can take many years to evolve. The PAR has been a long process, involving the participation and great dedication of many people.

An ultimate goal of PAR was building community capacity in the management of water supply systems. Therefore, PAR had carried out a number of activities to make the community capable of managing, maintaining and sustaining their water supply system themselves. For this purpose, the PAR followed an intensive training/workshop meeting and a very close follow-up of the water committee, the PAR volunteers and the whole community. Training in practical tools and skills required to carry out experimentation included the formulation of problem-solving strategies, developing and formulating an action plan, developing monitoring indicators, formulating terms of reference, and assigning roles to groups and individuals, organizational aspects, various record keeping techniques, securing participation and commitment of community members, and giving feedback on progress to the community and to the research team.

Training was also organized for each individual handpump caretaker on general repair and maintenance of the handpumps above ground level, and a toolbox was given to each handpump caretaker.

The information-sharing activities through the training, workshop and meetings helped community members to enhance their management capacity and to build self-confidence, which had engendered

a more comprehensive outlook to manage their water supply systems in a sustainable order. A visit has also helped community members to build self-confidence. Mrs. Parvati Chaudhari, who also represents the community as well as works as a PAR volunteer, can now bring their concern confidently. There are other community members who can now take a lead in the community.

Learning is a two-way process

One of the strongest underlying principles that PAR believes in is learning from each other i.e. both community and the research team. We have learned that an appropriate learning environment can provide an opportunity for a community to carry out a collective review of existing information and experiences, thereby arriving at a common understanding and a clear course of action.

An example could be that the PAR team had organized various exposure inter-PAR community exchange and observation visits in the selected communities, which included water supply systems as well as forestry. The objective was to provide a forum for sharing information and exchange of ideas and experiences.

The exchange visit in Gajedi (a PAR community) has helped the community to realize and raise awareness on the importance of latrines. This led to further discussion in the community on how they can solve this. The members of Gajedi have shown interest in constructing latrine components if they are willing to built latrines in the village. However, this is still in the process. Similarly, the exchange visit also helped Gajedi to learn from Rangpur that a sub-water committee for each handpump would be more effective to manage the individual handpumps, and they applied it in their community. The observation visit in Damechour, Dhading district, one of NEWAH supported programmes, has also contributed to the organization of a health campaign in the community.

The community's voice

"In the beginning we thought this project wanted to make a model village and that it would take care of the project. Later from experience we realized that this was not true, at the time we were not capable of taking care of our water supply system on our own. However, we had tried many times to improve the situation but we did not succeed".

"Now we think that this system belongs to us and we have to manage it ourselves. It took us four years to realize this truth! We are gradually learning how things should be done in a systematic order".

Whether the communities manage their water system in a reliable way or not is one of the issues. The community evaluation and the responses gathered from the community confirm that the system is judged to be reliable. Overall users are positive about the performance of the water committee and the PAR volunteers.

Results achieved

The experimentation of appropriate strategies for improving the management of water supply systems and the process followed have already showed promising results. In the four years of research, the most important achievements are were as follows:

- The community formed a separate wateryard committee of wards 1, 7 and 8 to manage their water supply system adequately.
- Additional handpumps were installed to minimize the rush to the water points. 2 Handpumps were cancelled due to political dispute.
- Handpump maintenance caretakers were trained in basic repairs and maintenance.
- The community has become willing to pay money for operation and maintenance of the handpumps. The O&M fund was established and deposited in a bank account. A user water tariff payment card was developed and used.
- There is full involvement of the community, with everyone participating and contributing in some way.
- The community has developed confidence, diagnosed their problems and felt committed to participating in making changes in their performance.
- The community has become increasingly committed to the concept of community management. The value of women and their role in water supply systems was realized and their participation was encouraged, involving them in the water committee and as PAR volunteers. There is also evidence that the committee is holding meetings regularly every month.
- Record-keeping skills have increased.

PAR – Constrains

Although there has been significant progress in the management of the water supply system in the village, the PAR team has also faced a number of problems:

- Friction due to competition over leadership, mostly stimulated by political rivalry (a factor which emerged recently with party politics) which caused delay in action. The political interference is also seen as a seriously contributing reason for canceling two handpumps, since the problems were encountered on the location of the handpumps. However, the PAR team has put both leaders together and discussed this with the community reformed water community.
- Major problems envisaged to be solved under the project are still not taken care of because of financial constraints and land acquisition problems. Furthermore, the improper drainage system and open defecation practices have caused an increase in stagnant wastewater and an unhealthy environment. It is evident that measures need to be taken urgently to improve the drainage system and sanitation facilities to avoid health hazards in the village.
- The project only provided a basic training to the caretakers on general repair and maintenance of the handpump systems above the ground. Training identified on below-ground-level issues was not completed.
- Management of spare parts was difficult since spare parts are not locally available and the lack of adequate spare part distribution has had an effect on system performance. The PAR team feels that there is an urgent need to determine how the availability of spare parts can be managed locally.

Planning for the future

PAR in Rangpur evolved over many years and overcame a succession of difficulties before establishing a successful management approach. PAR has laid a foundation for the community to improve their management performance so as to sustain their water supply system. It also led them to think towards other technical and managerial problems, which they still had.

As a result, the community felt that they still needed to constitutionalise the committee in a legal framework so as to help maintaining the rules and regulations within the community. Now they have asked for support from NEWAH to provide guidance on preparing a draft constitution.

Another activity which they are willing to carry out is the construction of latrines. For this purpose they have asked some construction materials from NEWAH and they are going to share the cost of latrine components.

Similarly, they are also interested in conducting literacy classes emphasizing hygiene education to raise awareness in hygiene behavior and to promote latrine construction. For this purpose, the community is trying to get support from other agencies, as the research team advised.

Conclusion

In conclusion, PAR appears to have been very successful and the results are encouraging. PAR has had a major impact on people's skills, knowledge and attitudes towards the whole process, and has improved their performance in the management of their water supply system, at least in the short term. The challenge to be faced in coming years will be to sustain the process followed by the community in improving their performance in the management of their water supply system.

The research team hopes that this process will encourage the community to look to a more comprehensive way to solve solutions not only for the water supply system but lessons learnt and expericnces gained from the process are hopefully also applied in other development endeavors.

Since PAR has dealt with most management issues during the project, it is logical that that the action research will be expected to play a crucial role in the light of information and experience gained by the community. It is likely to assume that the community will be able to solve other technical and managerial. Time will come to see how these challenges are overcome.

Chapter 2: What stimulating leadership can do

2.1 Nkouondja, Cameroon: A committed village leader

Nkouondja, a village in the West Province of the Republic of Cameroon, is known in the Foubot District for its improvement in the management of its water supply system in the area. The secret behind this improved management is the proper organisation of the village with prominent figures like the chief, Mr. Isiaka - president of the Village Development Committee (VDC) and Mr. Moussah - president of the Water Management Committee (WMC).

The village has small groups which are supportive to village development. These groups exist both inside and outside the village. The members of these groups are indigenes of the village who freely come together for other purposes like farming and selling of farm produce, and are ready to assist the village collectively.

As government policy, the department of Community Development (CD) gives support to community initiatives. The people of Nkouondja are beneficiaries of such policy. They have Mr. Njikam and Mrs. Awousa Jacqueline as their support staff.

The Chief: a symbol of respect

The chief of Nkouondja is generally seen by all the villagers as a symbol of respect and order. His presence during any occasion in the village gives an atmosphere of peace.

During the process of Participatory Action Research (PAR), he is always present mainly at meetings. These meetings take place only at the chief's palace where he sits at a corner listening to all discussions. Next to him are mainly the notables and quarter heads. No other person will sit near him in the absence of these people. The PAR team members have the honour of sitting at such positions as a result of the rapport with him and the respect the team has in the village.

Very peculiar with this personality is his attitude of sitting silently but taking note of everything that takes place. His ideas are only told at the end of the meeting or exercise in the village. I remember him saying after a session on the evaluation of the standpipes which revealed that almost 80% of them were dirty and he asked

"We like the work you are doing here. The result you have about our sanitary situation and the cleanliness of the village are shameful. It is however good that you let us know about this but what are you going to do with this type of information? We hope that you are not going to portray this type of picture of the village to outsiders."

The slow and gentle nature of this chief can be very misleading to an outsider. The PAR team doubted his authority over the people until one incident where the villagers were no longer participating fully in the supply of local materials for the construction of a new catchment that was to increase the flow in the system which should meet with the increasing demand of water by the community. In his calm, gentle style, the chief requested papers to convocate all his quarter heads to discuss the issue. This was done and all these people were assembled the following day. He met

with them to know what is happening that the work is not progressive. Various reasons came out and he probably did not want to be authoritative and then call for us to handle the matter in the way we taught them. Collectively with women who had a different plan for that day in the palace, the causes and consequences were identified. The main causes were discouragement by recalcitrant members, lack of sanctions on these members and weakness in monitoring by the quarter head. The major consequences were damages of cement in stock, Helvetas not completing its contribution and the partially constructed wall in the catchment collapsing. The core solution was identified as commitment from quarter heads and immediate resumption of work the following day.

Everybody was happy and determined to resume work but the problem was how to inform the entire community that night. The quarter heads immediately accepted the responsibility of doing this and a monitoring system set up to know those who are not going to participate. The president of the women group volunteered to supervise all the women and promised to remind them very early in the morning.

Feeling satisfied at the job and the result the chief made these closing remarks.

“Since you have been coming here, you talked to us about the importance of involving women but we never could imagine the difference we now see. We wish that you continue to train them as much as possible. I will like to see them drive a car like the woman I saw in Foubot town. You are now our light and we are ready to follow. It will be our pleasure to provide you with land and a wife from Nkouondja so that you become one of us.”

The chief is just one of the key persons in this village that have been very instrumental in the PAR project in Nkouondja. It will really be unfair to leave out others.

The President of the Village Development Committee

Mr. Isiaka is a man you will not miss when working at Nkouondja. He oversees all development initiatives of Nkouondja. Such a person needs to be receptive and dynamic and he possesses these qualities.

A student from the University of Buea reading Women Studies consulted the PAR team for a community to research on gender in water supply management and was advised to choose Nkouondja. Mr. Isiaka gave her a very warm welcome and guided her through the whole research. As she puts it *“Mr. Isiaka seems to know so many things. I was suprised to find a man in a village with so much knowledge. He was telling me many things I did not even know, like the seasonal calendar, village map and others I cannot remember. I was really embarassed.”*

At the moment this man is requesting our organisation, PAID-WA, to sponsor him to disseminate his experiences to other villages. It was due to his effort that the women eventually came fully into the management stream of Nkouondja water supply system. During the visit of an IRC coordinator, Mr. Peter Bury, Mr. Isiaka reported to have applied the PAR approach in resolving problems between parents and the headmaster of a primary school in the village. The problems had render the school almost not functional but today everything is back to normal.

The President of the Water Management Committee

It seems impossible to write about Nkouondja water supply system without mentioning Mr. Moussah. Though he was elected without the participation of women, they all are very pleased with him. This man would sacrifice his personal time for the management of the system.

At this moment the village is constructing a new catchment to increase the flow in the system. The success of such projects depends highly on the management. Mr. Moussah is just a 'round pick in a round hole'. Although this is not his duty he will walk the whole village from door to door just to make sure everybody is aware of work the following day. Some time we propose giving him a lift but he would not accept because there are still places he wants to reach that a vehicle will not.

During a diagnostic session with the women, we made attempts to bring up management issues involving this president but all the women collectively said that the present president is very good. As one lady puts it *"This project has come at the time we are very busy in the farm but the way the president will take to talk to you is such that you would not hesitate to participate."*

It is true that some of the project committee members are not reliable but he makes very little effort to enable them participate. During our recent visit to the village Mr. Isiaka asked him why he is doing so much work alone and he said when he feels things are not going well he does not sleep. Mr. Isiaka then said to him *"you are killing yourself very much. Hold as many meetings as possible so that others can help you."* Mr. Mousah clapped his hands and said *"It is true. I walk to much and the village is too large. In fact if not of the women president who helps it could have been even more difficult. I think I should be holding more meetings and distributing the tasks."*

Small groups In the village

Nkouondja village is well organized such that you will find farming groups, youth groups and marketing associations. When there is a development project all villagers are levied an amount to contribute. Members of these groups make their individual contribution and some will, on top of this, make group contribution.

At an assemble to welcome Mr. Peter Bury, a small group of about six persons made a contribution of 15,000 CFA France. This motivated the visitors who supported them with different contributions in cash. Cement was immediately bought that day for the catchment construction project to continue.

2.2 Ghaziabad in Pakistan: The role of local leaders

"Hamara Elaqaah bohut khubsurat hey" this is usually heard from the people of Ghaziabad, a village surrounded by high mountains and green pastures with beautiful Kachura lack at its bottom, which attracts people from all over the world. Ghaziabad is Situated at a distance of 25 km from the district headquarter Skardu at an altitude of 7,050 ft. The village is famous for its beauty as well as for its fruit, apricot and apple trees. The "mud & stone" houses give the village additional natural look. Ghaziabad with its extreme seasons of cold winter and hot summer, is now very different from what it was five years ago, when PAR came into the scene. This is a village of changes, new constructions are taking place with completely new materials alien to the people e.g. cement, Schools are being built, boys in paints and shirts instead of Shalwar Qamis(traditional dress, Girls wearing Purdah(traditional veil for women and girls) around their small round faces are going to school together, once thought against the culture of the community. Many income generating activities e.g. selling bottled water from the spring, drying and selling apricot, are going on. The Participatory Action Research(PAR) team came to the village in 1994 to see if the community is interested in participating in a process to improve the management of their water supply. Ghaziabad was an easy going village to work with, as Mirza Sahib(a retired army officer and CRT member) was already involving the community in development process e.g. bring schemes on road construction in the community and getting income generating projects from AKRSP etc. His small personal water supply system built on self help bases, worked as demonstration model for other community members. Mirza Sahib realized the water contamination problem and constructed a very small water tank 300 ft above his house with an investment of Rs. 3,000.

PAR support for capacity building

PAR's approach "learning by doing" has made the community able to bring a long term benefit to their village. They community was included in the project process right from the beginning. "The workshops have gave us a lot of information and we are able to use them in our learning center" Mr. Wazir Ali comments.. PAR has carried out activities to make the community able to manage, maintain and sustain their water supply system. e.g. the arrangement of separate workshops for male and female Community Research Team on: how to get together to identify problems and their related solutions; how to keep a record of village activities; and how to approach other agencies to find fund for other issues and development in the community. The female CRT members, Mrs. Ahmad Ali, fatima, Marzia, Fiza, Sherebibi and Zahida were participating in the workshop to discuss on the sustainability of the water supply system, on the enhancement of the women participation in the female restricted purdah system and on the augmentation of the ability of the community. The same procedure was carried out with the male CRT member through out the project process.

"PAR has showed us how to start a work, complete it with the agreement of all the villagers and than sustain it" Ali Khan, the village activist and CRT member says about the PAR 's role in the capacity building of the community. The members of men's CRT applied the planning tools and brainstorming to a link road construction project in the valley of Kachura. Through these exercise they identified construction options. One of the CRT member was very keen to use the rope exercise for other purposes and activities inside and outside the village. In this way PAR has

provided skills and information, and they are now thinking about initiatives and ways of applying the tools and methods, using the materials for their own benefits.

A model village

Ghaziabad is famous as a "model" village in Baltistan, because it has benefited from the rural development philosophy of AKRSP. The community was also supported by providing resources and institutional support. AKRSP has formed Women Organizations(WO) and Village Organizations(VO) in the community and gives a lot of time, energy and projects to the community. These organizations are used as a platform for discussing issues and making decisions. PAR team also used these organizations to enter the community. The VOs have saved a lot by the weekly saving system, totaling 26 lakh (Ra. 260,000).

Apart from the tourist flow in the region, the people have a great exposure to the outside world working on social development, PAR has also taken a lot of people in the community. "Nepal key aik howrat nay hamaray bauth tarif key" means that a Nepali woman has appreciated the work we have done in our community. Here the CRT members are talking about Ms. Hari Maya Suba, the one of the Nepal PAR team who visited the community in 1997 for the mid-term evaluation. People working in social sector from all over the world also come in the community through AKRSP.

The leader, Mirza Mohammed has also a great role in making the community as a model. The community has a great faith in their leader and this is because of his contribution in the development of the village. Participatory Learning Center, a building constructed with the fund from AKRSP is being used as a training center. The CRT members train other community members of what they have learned during the 4 years of research from the PAR team. This center was used by IUCN for a workshop held for participants from all over Baltistan on the conservation of wild life in 1997. A training for the teacher was going on in June, 1998 when PAR team visited the community. This training was arranged by the CRT and was in the responsibility of one of the CRT member who is also Minister for Education. The CRT president has invited two VSOs to teach in the newly set up co- education school.

Traditional water supply systems

Like other mountain villages in Northern Pakistan, Ghaziabad people once depended only on traditional water sources for survival. It is not so much that the water has always been scarce, but that the seasonality affects the amount of water during the year. While in summer is an abundance of water and even occasional flooding, during the winter the water becomes a big problem. The primary source of water in the said village includes snow and glacier which flow down from the mountains into man-made channels. These channels guide the water throughout the village and bring water near the houses where it is used for drinking, washing clothes, cooking and bathing. In the summer domestic water is either collected in pots or jugs from one of the many irrigation channels winding through the village, or fetched from the family gulko, a traditional water pit in the ground which is used for storing water. This water is also used for irrigation water for the fields. The 38 households in Ghaziabad use the channel water in accordance with a system of norms and practices which have evolved over time to provide every home with equal access to water.

In the winter the water is rarely available in the channels, and therefore the people fetch water from the Skardu River. This task is traditionally left for the women to do. It becomes a precarious job

during the cold months as the path becomes covered with ice and snow. Since the water channels were totally unprotected they become easily contaminated from agricultural, livestock and human activities. The microbiological contamination results in a high incidence of diarrhoeal-diseases particularly among children under five years of age during the summer months. These health issues have provided the driving force for the community to contrive an alternative to their traditional water supplies, an alternative which could lead to better health and well-being of the community.

Towards improved water supply system

before PAR As mentioned above that Mirza Sahib realized the water contamination problem and constructed a very small water tank above his house, and this played an important role in convincing the people of Ghaziabad to think about the improvement of their water supply system. He also took the initiative for the need of an improved water supply system at the community level. Preparing the community for the need of a water supply scheme, took him 5 months. Some community members went to the NAWO (Northern Areas Works Organization), who was planning to construct a big water supply project for the whole of Kachura Valley, of which Ghaziabad was one village. All the expenses of the project including: maintenance; operation and management was responsibility of NAWO.

NAWO took a long time in planning to implement the project, "NAWO wallo nay kaam jeldee shuru nahi kia tho hamay orr idaroo may jana pada" meaning that when the NAWO people did not start the scheme, we have to consult other agencies, Wazir Ali secretary of the CRT reported. The community decided, instead of waiting for NAWO, it would be better to approach LB&RDD (Local Bodies & Rural Development Department). After a long process of dialogue, the community was able to bring a community-managed improved water supply in the village. A size of 4'x8' size water tank with 3,000 ft long water pipeline was approved by LB&RDD but the community thought that this design would not serve the whole community and disagreed with the institution. The community made LB&RDD to redesign the whole scheme by adding 6,000 ft more pipes totaling 9,000 ft pipes with a 8' x12' water tank. This indicates that the community under the leadership of Mirza Sahib was moving toward changing the community by influencing other organizations. A project committee was also formed which consisted of 6 members and their duty was to look after the project and have communication with LB&RDD. PAR on the scene

A strong management system

In the last 5 years the village has developed a strong management system. The CRT members have prepared a timetable for each member so that everybody is aware of his job. Before the PAR interventions, the planning in the village was very difficult and complex, but as a result of the CRT's involvement in the PAR process the management has become more easy and systematic. All the activities in the community are documented which includes: the meetings of VO & WO; record of the visitors; the duties of each CRT members; the funds collected for the maintenance and operation of the water supply system; and the "Jurmanas" fines of those households who keep the standpost taps running. The CRT members are praising the PAR project because they feel it provided education, knowledge and skills to build their capacity of managing the village activities. A villager has started selling bottled water and is selling it on a very high rates in the local market.

Women in water supply

One of the objectives of CRT was the inclusion of women from the beginning of the project. Like elsewhere in the rural areas of the world, fetching water from the river and the channels and managing the household water supply is women's duty. The credit goes to PAR that they were able to bring women in the project. Bultistan is well known for its rigidity of women participation in activities outside the house. They are supposed to do household chores. Separate meetings were arranged for the women with the female PAR team. This made it easy for them to sit together and discuss their problems and make decisions at the community level. It was surprising that the top priority problem "dirty water is going in the water distribution tank" identified by the men's team was also thought to be a very serious problem to be handled first by the women's research team. This convinces the male community members to accept the presence of women in decision making at the community level.

After the completion of the water supply scheme it has been no longer possible to meet the women CRT members. One of the old PAR team, with the new PAR member went in the village to meet the CRT but the women could not come, again Saeeda, an employee of WASEP has observed that 2 times in the past she had gone in the past year to Ghaziabad it has been impossible to meet with the women. It is suspected that the men are not giving permission to women now as the physical construction work is finished.

It is assumed that maybe the response which the men are giving are all orchestrated because they do not want anyone including the women to say something wrong or misleading or to tell what goes on behind the scene. This is a point of concern and research. This question was raised to one of the CRT member when the PAR team visited the community and his answer was, "they are busy in the household work and could not come". Although this was not a very good excuse but one can understand as it was summer time and the field work was going on. When asked by the PAR team, where are women now, what is their role in the water supply system, he said that if the male members need their help, they are consulted e.g. the women's committee help in informing the male community members for a communal work as repairing of water canals etc.

More money, more projects!

"What has PAR given to us, a few pipes" this was the remarks of the CRT member when the PAR team visited the community. His remarks made us reply, "what do you mean? PAR has spent 4 years in building your capacity in managing your water related issues". But this also made us think that they have gained a lot from PAR and now they want more. For the "more" they are taking risk for asking by using such kind of words.

Although the community has saved a lot, but they are asking for more donations, by saying we have to pay for the debt of the school building or PLC building. Recently the community is involved in construction of roads which goes through the village to the pasture which is also used by another village.

In the community because of education, cash flow and access to information, they are ready to take risk, for example, building a guest house was a financial risk for them, yet they are ready to deal with the end result. Recently a World bank team stayed in the village guest house and this resulted in Rs. 85,000 in benefit to the villagers. During the exchange visit of the CRT Pakora and Hasis,

PAR has found a negative attitude regarding the prices of food and accommodates as the CRT of Ghaziabad charged more than the actual expenses of the food. This community is on the route to absorb risks and look for long-term benefit to interventions. It is thought by some that this has led to the development of a commercial attitude in the village.

The changing attitude to commercialization has also noticed at the community level. The PAR team visited the community and noticed that all the water taps on the street were open and were out of order. When this was brought into the consideration of the CRT member he responded, "hum dak rahah hay orr logow ko batayiay bagher mahinay kay akher may may jurmana kerain gayh" meaning that we are noticing those household without telling the house owners and after the end of the month, we will charge them according to the number of days the taps have been kept open. Although there are maintenance funds for the repairing of the taps but to take more money from the tap owners, the committee keeps quite for days instead of go and repair the taps at the evidence.

Not a religious leadership

As compare to the other communities of Baltistan where the religious leaders are very powerful regarding their influence in the communities, but this is not the case in Ghaziabad. Mr. Mirza Mohammed, a retired Honorary Lt. of the National Army has changed the entire structure of the community. He has brought a lot of benefits in the villages and this why the community trust him. "If Mirza Sahib order us to jump in the river, we would do it". Now the community has a blind faith in him. This raises the issue of what creates a "true leader." "True" leadership in the context of the village means benefit to the community, he does every thing that is in the villagers' best interest.

There is the question of what will happen 10-15 years from now. PAR team was concerned that this one man was dominating the conversations and decision. The team gave the men's CRT indication that this man should not be at every meeting because the PAR team wanted to know to what extent this man was controlling the opinions and views of the community members. After giving this impression, he did not attend meetings and there were no problems. In addition to the main village leader, who is referred to as Badshah(king), the community men have developed a formal hierarchy of other roles, including a Road Minister, a Water Minister, an Education Minister, a Health Minister etc. The duties has been divided into, Dakhili Umor(internal affair) and Kharigi Umor(external affair). There are four Ministers for external affairs. The CRT has devices a list of the 14 qualities of a successful leader. All the Minister report to the Badshah (kong), Mirza Sahib.

He was the first in the community who pointed out the need for an improve water supply system. He also showed this need by constructing a small water supply system for his house(as mentioned a above). Mirza sahib used the VO platform and took the initiative for the need of water supply system.

2.3 Batcham in Cameroon: Stimulating community initiative

Entry into the village

As you leave Buea, the head office of the PAR project, it takes five hours to arrive at the nearest town to Batcham called Bafoussam. This is where the team stays when working in Batcham. It is the Provincial Capital of the West Province where Batcham is located. In a ten minute drive from Bafoussam, on the road to Bamenda, you will find a junction branching off to Dschang which also leads to Batcham. On this road you cannot miss a big road junction with a market and many bicycles and motor cycles waiting to pick up people going to Batcham. Take the right and you are on a dirt road leading to Batcham village. If you had not eaten, then you must fasten your seat belt and hold the vehicle firm otherwise you will hit your head against the roof of the vehicle as it gallops through the pot holes.

After crossing a small bridge you are now in Batcham but do not give up if you still have to travel for about twenty five to thirty minutes before you find a Catholic Mission Clinic. This is where you can start to find out if any body knows about the PAR project. You may not easily find somebody to help you out if your are English speaking. Almost everybody in the Southern part of Cameroon speaks Pigeon English, English mixed with local language, but it is strange to find people close to an anglophone province and cannot speak even pigeon.

The village structure

Carrying out PAR activities in Batcham was really difficult because of its size. If you are used to applying a village walk by moving through the entire village in a day, forget about it here in Batcham. This is a village with about thirtytwo quarters and each quarter is almost a small village. The population density is the highest among all the four PAR villages in Cameroon, which also include Nyen and Mbemi, Nkouondja and Bokito Rural.

We ran into difficulties in this large village when we set up the PAR project to cover the entire village. Normally in a learning process, one would expect the same people attending the various training sessions. This was not the case here. Curiously, we asked Mr. Job, who is a local research group member, what was happening. He admitted to us that it is not possible for him to invite the entire village because he could not move round the whole village. This would cost him a lot of fuel using his personal motor cycle, and even then some people are too far to walk and arrive here at the time we plan to start. Sometimes, the sessions had to end prematurely because of the distance some villagers had to go to return home.

Each of the quarters has a quarter head which represents the chief. These quarter heads report to the chief who is in the same quarter as the clinic. He is really a big chief with a large compound on the way to the clinic. It has many houses with the roof in the form of a cone. Only the chief and quarter heads are allowed to roof their houses in this form. We were told each of the many houses belongs to a wife. These leaders and notables form the traditional council, which meets only in the chief's palace. Their chief is hardly seen in public. In fact, for our four years working in Batcham we have seen the chief only once. It was really a special occasion to have him in a PAR activity during the

ranking of potential solutions proposed by the villagers. We even had to create his own group made up of his entourage. Ordinary villagers would not feel comfortable working with him.

Water resources

The handpumps installed in Batcham probably are probably the reason behind the choice to include this village in the PAR project. It is a community with handpumps installed by Sister Lola, a Spanish nun managing the clinic in the village. She was motivated to initiate this project because of the high incidents of water related and water born diseases in the village. This investment was breaking down and the villagers could not do anything. PAR arrived when the Sister was giving up as she could not continue to repair the pump without the participation of the people. She supported the project immensely by releasing Mr. Job, who is one of her major staff, to be part and parcel of the PAR project. Through him everything in the village was done.

After the handpumps had been installed, the Government constructed and pumping system in the village during the Water Decade, through a company from Denmark called Scanwater. This did not last for a year because of the methodology used. No villager knows anything about it. The choice of technology was so complicated that even if the villagers were trained to manage it, they would still have had problems and the system would not still be sustainable.

The geographical location of Batcham makes it very difficult to find a natural surface water source. This limitation makes the village dependent on ground water. At the moment, the village is interested in a gravity system as they have seen in other villages, but this dream may still take a long time to come true. However, the train is now on the move as they have contacted the department of CD to make a feasibility study. We hope God hears their prayer and a source is found to bring in water by gravity.

Due to the non-participatory methods used, the two efforts to provide potable water here failed. This was never known to the people until PAR came. Today their eyes are opened and they have an idea of what should have been done. Because of the previous methods, no structure was created to manage the systems, and the people have never had any management experience. That is why their experiment was centered on the creation of organizations in the village, which took them through the establishment of quarter committees and a central coordination committee charged with the responsibility of overseeing what is happening in each quarter. This is absolutely necessary for a village as large as Batcham.

PAR as a spring board

In every community initiative, there are always people who spear head and influence others. Batcham is not an exception. When PAR first arrived, the first people to get involved have become the corner stones of the whole process. We are talking of people like Mr. Job and Sister Lola.

We also blame some communities for not taking initiative or for being lazy, whereas they lack people to guide them or give them the energy that will make them act spontaneously without waiting from anybody again. In reality, in most projects what communities do is initiated by elites who, by the virtue of their knowledge and outside experiences, take the lead.

Government organizations and NGOs are expected to provide such activation energy, but they are limited by the approach used. From the four years experience with PAR, this appears to be an approach that can make the trick. Here is Batcham, which initially was like not worth working with, people are now taking unexpected initiatives.

Opening people's eyes

When PAR arrived in Batcham, the discussions had been mainly with the staff of the clinic, in particular with Rev. Sister Lola and Mr. Job, a nurse from the clinic. The Sister was feeling very disappointed with the community because they could not take over the maintenance of the handpumps installed in various quarters. She said that the people of the village lacked community spirit. They could not work together to realize development projects that would improve their health. She however acknowledged their hard working nature but thought that this was only for their individual interest and not for community interest. She further said that they are very rich people but would not want to spend their money to improve their living standards. Such remarks were not surprising to us because Cameroonians believe that the people of this region called Bamilikés hardly spend their money. It is said that to them having huge amounts in 'Njangis' or bank accounts is more important than what they eat.

The clinic had been organizing training meetings to educate the people, particularly the women, on hygiene practices during clinic days, but very little has changed in the village. She was therefore very interested in seeing the difference PAR could make in such a difficult community. This was a challenge for the team as well. She promised to give all support needed and immediately assigned Mr. Job to be our contact person, who later became an Local Research Group (LRG) member with another lady from the community.

These two had their full initiation in the PAR project when they attended a workshop organized in Bamenda. During the workshop, there was a visit to Bamesing, a village with a gravity water supply system that functions very well and is managed only by the community members. This thrilled them to find villagers handling such tasks. Job will never forget this visit, and he always reminded us during the diagnosis phase that their dream is to have a system like that at Bamessing.

It was actually a problem for us to convince the people that we should learn to manage the handpumps while studying on the possibility of having a gravity system. This took us half a day only debating on this issue. They eventually agreed as we went back to the objectives of the project which were not to provide a new system but to build capacity by learning from experiences.

The diagnosis and solutions identification went on well, and we all knew then what the weaknesses of the community were. They were happy to realize that everything came out of themselves as it was true that the village was not organized. At this point we had to break and prepare for a National Reference Group meeting, where we presented the situation in each village and ask for ideas on how to go about it. Members looked at the problems and solutions proposed by the villagers. They recommended that we should concentrate on creating institutions in Batcham because it is very difficult to have community initiatives without such institutions or structures. Experiences were shared on how to go about this, since these were people who have been working with communities.

Community taking the lead

As our usual way of finding out what took place in our absence, we asked the people what they had been doing in the period of our absence. Mr. Job read a report of meetings held at the clinic and in various quarters. He went ahead and told us that this resulted in the establishment of committees created at central and at quarter level, in those quarters which have handpumps. The quarter committees are supposed to take care of the maintenance of their handpumps, and the central committee is to coordinate and supervise the quarter activities.

How was this done? We asked and Job narrated how he discussed with the Sister the need for such organizations as it was found during the solution analyses. The Sister agreed with him, since the PAR team always give feedback to her after sessions in the village. It was now easy for her to release him for a week. During this week, using his motor cycle and fueling it himself, he went around the village discussing with the quarter heads and inviting them for a meeting at the clinic. The meeting was well attended and he made an overview of the process that had been going on with the support of those who were attending the PAR process. They all appreciated his explanation, and from there discussions went on about how to organize themselves. That was when the issue of quarter and central committees came up.

From the experiences of the PAR process, they knew that their people are difficult as such. Therefore they decided that the initial thing to do would be to carry out sensitization campaigns before forming the committees. This was done through announcements in the church, on market days and through meetings in each quarter which were held with a health support team from the clinic. People attended these meetings and the message spread fast. From then they made appointments with each quarter to elect members for their committees. This was done and all committees were created.

As a result of this eye opening, the people went ahead and carried out physical maintenance on the handpumps and wells that had been abandoned for years. Whenever possible pumps were repaired, and those that had gone beyond repair were simply replaced with a rope and bucket system. Initially, the rope was pulled with the hands directly; later they developed a pulley system that eased the water lifting. The pulley was locally made and works very well with very little energy. Children could now lift water which was not the case earlier, because for those wells the handpumps had been difficult to operate.

3.1 The case of Nkouondja in Cameroon: Women are getting a chance

Background

The intention of the PAR team of going to Nkouondja was to understand what makes their water system function and to find out the different management structures they had put in place to facilitate management. However, the overall objective was to enhance the management skills if necessary.

No transparency

The scenario that the PAR team met in Nkouondja in 1995 was a situation where the water management committee was not functional and both the conditions of the system structures and the mentality of the people had degenerated.

The president of the committee never called meetings to discuss and take decisions concerning the water supply. He took unilateral decisions and carried out irregular spendings. The caretaker used to deliberately disrupt the water supply to certain parts of the village because he received no motivation from the population and there were many leaky spots on the pipeline and frequent breakdown of the taps resulting in shortage of water especially during the dry season. These conditions, resulted in a serious conflict amongst members of the water management committee and between the Nkouondja and Fosset the two communities sharing the water. As such, there was an acute shortage of funds to carry out maintenance on the system as the population refused especially because there was no system of transparency and accountability.

The women who were not even members of the committee and therefore more alienated from the decision making were more adamant in refusing to pay. I remember during one of our visits a woman came up to us after we had finished the meeting with the men and said, "look the reason why people refuse to pay the monthly contribution is because those who are charged with collecting the money are not honest, they ask us to pay while they and their wives do not pay and they expect those whose husbands have no position to pay". She insisted that until they institute a system that is transparent the conditions will not change.

The people of Nkouondja were living with this conditions and had become complacent about it. They had come to take it for granted and were not critical. Of all the PAR activities, the most important one that change the attitude of the population drastically according to testimonies from them, was the process of analysing the causes and consequences of problems in an open and frank manner with a cross section of the population represented. They were equally enthralled by the process of prioritisation of the problems and the subsequent approach of identifying solutions by searching from within and without the community either by exchange visits or just simply asking questions.

Bye, bye 'Mr. Mama'

To illustrate how the people of Nkouondja have changed, it is necessary to quote some of the community members. Issiaka said, "this has armed us with the most powerful tool for solving our problems because with this approach, we can see directly the causes and the effects on us, and this way it immediately puts the pressure on us to solve the problems".

Still on this, one elder stood up and said, "now you have opened our eyes and we can see how those we have entrusted with our water treat us. Now, they have lost this trust and we are surely going to do something to change the situation". He turned to the caretaker and said, "and you Mama, you have abused our confidence and be informed today that we are going to train another caretaker so that never again will you block water from us", and it is interesting to note that today in Nkouondja there are two caretakers.

The chief who is always present at our sessions also stood up as usual to close the session and he said, "I want to thank you people again for the useful work you do with us, but I also want to plead with you that in this work we do, please do not only look at the bad side of the community but the good things about us as well. So please you people should know that to us you are like our doctor because you have helped diagnosed the disease we are suffering from but please do not behave like the doctors who treat their patients not to cure their disease but in such a way that they keep coming back so that they also stay in business. So please we are pleading with you to give us the medication that will cure our disease permanently". Such is the character of the chief of Nkouondja: quiet, perceptive, very analytic and always providing the right ending.

A young man by name Kpoumie Issahwho is also a member of an association called '**Association de Jeune de Nkouondja (AJENKO)**', had this to say:

"We the members of Nkouondja have very strong sentiments about PAR.

Participatory development is one that encourages the participation of every one no matter his/her social status. This participation also depends on both human and financial resources of the community. We now realise how group work is very important. We have also realise the importance to manage our water supply rationally. Now we are conscious about the fact that at certain periods of the year the water level drops. That we have to keep the surroundings of our standpipes clean and use water rationally and contribute towards the maintenance of the system if the need arises.

Presently there no major conflicts but let me underline here that we still need people to ensure the financial management of our committee. The knowledge acquired from PAR does not only help us in the management of our water supply but also for other development projects. This knowledge has brought the youth association to have more solidarity. and to participate actively in the construction of the village. We have learnt that one hand cannot tie a bundle.

We have the intention to create a youth committee and members will work closely with the PAR team. Yes, we think that the participatory method has enhanced our capacity and has led us on the road to solving our water management problems".

The statements made by the chief and the elder who is also the village griot were like the starting point for the community and represented the point at which the PAR team handed the baton of command to the community. This was like saying, yes we are now aware of our situation and we are ready to do something about it. However, it is one thing saying that they had learnt something but it is another thing actually acting in a way that reflects this change in attitude. Again in this regard, there are a number of events that can go to show this.

The Woman's Voice

Today, the women no longer pip from the window when we come to the village but actually come to joint sessions with both men and have become active participants in taking decisions on water management issues as well. In a recent meeting in April of this year when Peter Bury was visiting, the women came out in their numbers to welcome him and talk about what they have learnt. At this occasion the chief said, "You have been having only bones when you come here, but today you are going to have the bone and the meat on it". He continued and said, Yes you have been hearing and seeing only what the men are doing, but today you are going to hear and see what the women are doing", and amidst clapping and cheering they welcomed Aminato, the dynamic president of the womens group to the stage. She came out boldly and stood in front of the crowd and read a speech they had prepared. In her speech, Aminato, what they did in PAR and how it is changing their lives, using that particular occasion as an example to show how both men and women are slowly accepting the idea of meeting together in one forum in public. In a later meeting where the women were presenting the outputs and problems identified from the PAR exercises, and the men insinuated that they would not cooperate with some of the decisions the women had taken in respect to raising their own contributions, the women opening and boldly told them in front of Andrew and Peter that they had ways to sanction them if they refused to give them support. They said they would refuse give them food as a means to bring them to cooperate. This type of boldness and assertiveness is certainly a very big change.

Also, the people of this community have turned to be very receptive towards outsiders and their ideas. During a recent PAR workshop organised in Nkouondja, the community people strongly objected the idea of housing the participants in a hotel outside the village and decided to pair the participants up with families so that they would have the opportunity to explore common issues about community management and create networks. The pictures below show different scenes of community members interacting with and entertaining the participants during this occasion especially during lunch. Aminato and the other executive members of the womens group also came out on one occasion to meet and exchange views with the women LRG members from the other villages.

Besides attitudinal changes, there are some physical changes that have been carried out as well. As concerns the frequent shortages of water they used to experience, new pipes were bought and all the old leaky ones replaced. The technique of rationing water during periods of shortage has been reversed in such a way that each quarter receives water two days a week a change from the weekly arrangement that existed before. In respect of carrying out punctual repairs of taps that get broken, they have decentralised management to the quarter level and even by standpipe. Along with this they have also elected some people in the quarters to be responsible for collecting monthly contributions and any other funds, for example, the recent case of the new catchment project. This is an idea that they learnt from Oshum another non-PAR community that the LRG members visited

Presently, there is a definite awareness about keeping the surrounding of the standpipes clean. During the workshop mentioned above the participants were walking through the village accompanied by their hosts when they came to a standpipe that was extremely dirty with weedy surroundings. One of the outside participants, Mr. Tassi from Nyen village, very calmly called on one of the people from this quarter and asked in a very non threatening manner, "Do you carry water from here", and when this person said, "yes", he asked further, "do you drink it", and the person said, "yes", and he asked again, "how do you feel about these surroundings". When this person answered that it was dirty, he then asked him whether he knew the consequences of drinking dirty water and with this, he simply stoop over and starting weeding the surroundings; without any further utterance, every one present including the people from the neighbourhood came and joined him in cleaning around the standpipe. This lesson certainly pushed the people to put a system of maintaining cleanliness around the standpipes pipes. This is a system whereby all the women living around a standpipe organise to clean in turns.

3.2 Hoto in Pakistan: The value of having women involved

Water and the Community

It is 4:00 p.m. in Hoto, and the villagers are working in their fields, orchards and gardens after having taken a mid-afternoon meal. From the loudspeaker at the mosque a familiar male voice is heard. This is the voice of the *azan* which calls these Muslims to prayer five times each day. But today the message is announcing that a meeting to discuss the new water supply scheme is about to begin at the house of the President of the Community Research Team (CRT). All of the members of the team and other related persons are requested to come. Within fifteen minutes the team members have begun gathering inside the President's house. Eight male members sit beside each other on one side of the room. Three older boys, the sons and nephews of the older male members, join them. On the other side of the room the female CRT members congregate along with 3 other women who are non-members, but who are also interested in hearing the discussion. Before the meeting begins, Sheikh Ali Ahmad, an influential local leader and member of the Shi'a clergy, enters the room. Everyone stands as a sign of respect to exchange their customary "*Asaalam o aleikum*" with him. He takes his place in the corner of the room. The meeting can now begin.

For the past four years meetings such as this one have been held between traditional leaders and community-based researchers to discuss the issue of drinking water for the entire village. Here it has been a slow process of change. The notion that communities themselves can guide the process of improving their village drinking water supplies is a new idea not only in Hoto but also elsewhere in Pakistan. This type of meeting represents a new form of organization in a mountain village which has been plagued by water shortages, internal conflicts, and heated water rights disputes for many years. In 1997 the village implemented an improved water supply system and for the first time households have access to safe drinking water throughout the year.

Traditional water supply systems

Similar to other mountain villages in Northern Pakistan, Hoto residents once relied only on traditional water sources for survival. It is not so much that the water has always been scarce, but that the seasonality affects the amount of water during the year. While in Summer there may be an abundance of water and even occasional flooding, during the winter the flow dwindles down to a trickle. The primary source consists of waters from snow-melt which flow down from the mountains into human-made channels. These channels guide the water throughout the village and bring water near the mud-brick houses where it can be used for drinking, washing clothes, cooking and bathing. In the summer domestic water is either collected in pots or jugs from one of the many irrigation channels winding through the village, or fetched from the family *gulko*, a traditional water pit in the ground which is used for storing water. This water is also used for irrigation water for the fields. The 180 households in Hoto use the channel water in accordance with a system of norms and practices which have evolved over time to provide every home with equal access to water.

In the winter the water merely trickled through the channels, and the people were obligated to fetch water from the Skardu River. This task is traditionally left for the women to do. It becomes a hazardous job during the cold months as the path becomes covered with ice and snow. Seven years ago two women died while collecting water from the river.

Since the water channels are totally unprotected they become easily contaminated from agricultural, livestock and human activities. The microbiological contamination results in a high incidence of diarrhoeal-diseases particularly among children under five years of age during the summer months. Women at the beginning of the project reported, "Our children are dying of diarrhea." Skin-diseases are also common. These health issues have provided the impetus for the community to devise an alternative to their traditional water supplies, an alternative which would lead to better health and well-being in the community.

Religious leaders and their vision of change

In Hoto no changes regarding community development or social change can take place without the involvement of those who are the traditional leaders in the community. This leadership is concentrated in the hands of members of the *ulema*, or the Shi'a clergy, who live in the village and maintain strong ties with Muslim leaders outside of the community as well. Sheikh Ali Ahmed is the most important traditional leader in the community at this time. He opens the meetings up with "*Bisma-allah* " or "In the Name of Allah" and the meetings are closed when he makes a small gesture to indicate that the meeting should be brought to an end. He is well-respected and is seen as one of the most important decision makers in the community. During the process of improving drinking water in Hoto he was always invited to add his opinion and sometimes influenced the community members' ideas in very strong ways.

In addition to Sheikh Ali Ahmed another important traditional leader is Sheikh Agha Saheb. Even though he does not take up permanent residence in the village anymore, he still maintains close ties with the community. He is now based in Karachi, but messages are regularly sent to him regarding any issues or changes in the village. He also makes regular visits to Hoto to see how the villagers are doing and to help resolve any types of problems which may have arisen during his absence. During these visits he meets and talks to people and hears what they have to say. In this way he continues to be influential in village affairs. Also, his opinions about the types of changes necessary for Hoto are taken very seriously. He has the power to influence the villagers' thinking in very profound ways.

These traditional leaders hold very strong opinions about development in Hoto. They have their own unique vision of change and the types of changes they would like to see or which they feel are acceptable for the people in Hoto. Their opinions are also shaped by the thinking among the larger Shi'a community living in the region. In this way their ideas and visions of the future do not exist in isolation, but also reflect other perceptions of change which exist in other villages as well.

While these religious leaders are not directly assigned responsibilities such as the key managers and planners of various activities or projects, it is nearly impossible to discuss an idea which concerns the men and the women of the community without the participation of these traditional leaders. In this sense they have a lot of power to initiate social change. Because of their support for improving the water supply the project actually came to fruition.

Community Development Actors

In order to understand how drinking water has been improved in Hoto it is essential to outline who the players are in creating and motivating the changes and issues in Hoto. In Hoto the water is owned and managed by the community itself While women are the ones who are largely responsible for domestic water work and some of the irrigation work, the men have traditionally been responsible for making decisions which affect the management of water resources. In the past the village elders and the numberdar, a traditional leader who makes decisions regarding communal resources, have been responsible for the management of water in the community and for assuring that all members of the community receive an equal allotment of water. However, this traditional organization of elders has been ill-equipped to deal with the management of new technologies and institutional structures required for the management of an improved water supply.

Since 1994 the Community Research Team (CRT) has filled the institutional void in the community and has become the primary organization for managing the improved water supply scheme. The CRT is referred to as the "Water Committee" by community members and has become the catalyst of change when it comes to improving drinking water. The CRT has maintained a good working relationship with the traditional leadership structure in the village and has made a point of holding meetings which do not exclude the traditional leaders from participating.

Additionally, there are several external actors which influence water management and community development in Hoto. One is a government agency called the Local Bodies and Rural Development Department which was the first agency to attempt to improve the drinking water supply situation in Hoto about 11 years ago. The scheme which was built at that time originally led to the bitter conflict between Hoto and the neighboring village of Pakora. LB&RDD remains one of the main agencies working in the rural water supply sector in Northern Pakistan. While they do provide technical and financial support to villages, they do not give much assistance to support and develop the internal capacity of villages to manage their water supplies themselves.

Another development actor working in Hoto is the Aga Khan Rural Support Programme, the most reputable NGO working in the region. On the basis of their self-help approach to community-development, AKRSP helped initiate a men's Village Organization and a Women's Organization in the village and tried to encourage various income-generating activities. However, these organizations were not sustained by people in Hoto until recently.

AKRSP has found work in Hoto frustrating because they feel the villagers are "lazy" and uninterested in community development. From the Hoto villagers' perspective, however, they feel that AKRSP was trying to convert them to another Islamic sect and was attempting to change their culture. They feel the AKRSP staff has not been respectful of local culture when they came into the village. This sentiment had a negative impact on the PAR process in the beginning and the PAR team had to overcome these views in order to meet with the women of Hoto.

A heated water rights dispute

One of the greatest barriers to improving water in Hoto has been a heated water rights dispute with the village of Pakora. The origins of this dispute lie in the history of a water supply scheme which was implemented by the government. This scheme was built without taking the traditional water rights guiding the use of spring water between the two communities into consideration. The spring is located within the Hoto locality. About eleven years ago LB&RDD had already built a water supply scheme to contain the spring water and to distribute it throughout the village. The Hoto people were using this water and later Pakora began using the water as well by diverting it from the distribution pipeline. A shortage of water resulted in Hoto and the conflict with Pakora broke out. Hoto was not willing to give water from this scheme to Pakora due to traditional water rights which allowed Hoto to claim all of the spring water.

The dispute became increasingly heated and was finally taken to the lower court in Skardu, the regional capital of Baltistan where it continued for 7 to 8 years. At one point there was a demonstration held by the Hoto villagers who were protesting the shortage of the water and the fact that the government was doing nothing to resolve the issue between the two communities. The police were called to Hoto to break up the crowd. The police and the villagers became embroiled in a fight and some members of the community recount that several village women had actually been beaten by the police. The key issue for Hoto has been to resolve this dispute by identifying a solution or an appropriate strategy. In 1997 Hoto residents proclaimed, "*We have won the case!*" Yet this has left bitterness and distrust between the two communities.

A switch in thinking

The Participatory Action Research team came to Hoto in 1994 in order to learn if the community of Hoto would be interested in participating in a process to improve their water supplies. For PAR Hoto was a complicated choice because it did not have a positive reputation in the region. The community development activities in the village had all failed and it had been labelled by NGOs in the region as a "bad" village in which to work because of the lack of successful projects and the lack of community organization. However, the PAR team decided that this could be a village which would offer many lessons about communal action to improve drinking water. The most important lesson was that with a little "push" and motivation from outsiders, the people were able to **switch their thinking** in order to address their water problems. This was a major achievement which came out of a process of dialogue.

Not just a duty for men

The initial meetings were held with the male members of the community. The men of the community did not allow the PAR team to meet with the women of the community. The men distrusted these "outsiders" and feared that they would prove to be "agents of negative change" in a village in which the women follow a strict form of purdah and are not allowed to meet with people, especially men, from outside the community.

The women initially were invisible to the PAR team. For one year the men gave no permission for the PAR team to meet with women. Later, as confidence and trust developed between the PAR team and the community through a long process of dialogue and meetings, the female PAR team member was allowed to meet with the women. At this step the women were brought into the

dialogue on drinking water. However, the women did not perceive their involvement to be important or even essential to the process, as they told the PAR female team member: *"We did not know any information about the meeting. The men didn't tell us about the meeting, otherwise we were free to come. Anyway, what are we supposed to do in the meeting? What concern is it of ours? This is the men's duty and not ours."* Once the women began participating in the meetings they began to see that they have an important role in the process of improving water supplies, and they quickly realized during the problem-solving exercises that decision-making regarding the water scheme is not just the duty of the men.

The Pani Ki Committee

At first the PAR team had a lot of difficulties in approaching the people because the village is spread out and has many internal divisions. It is a large village of 180 households divided into four mohallahs. These mahallahs are largely based on family or clan membership. The community was divided into different mohallahs -- Sherpa, Fishpa, Gon, Gandapa and Auzapa -- and each clan has its own identities and way of looking at their position in the community. The first strategy the PAR team took to get to know the village and to begin a process of dialogue was to approach the traditional leaders of each mohallah. Then the traditional leaders started organizing mohallah-based water committees. These committees would then be responsible for communicating with the households in their mohallahs and for organizing their mohallahs at times of community-wide meetings. It was decided to organize the community according to mohallah divisions in order to reflect the traditional social organization of the community.

The younger and more educated members of the community became the leaders of the four mohallah teams. This decision was made because the traditional leadership felt that people with an education would be better prepared to take on the responsibilities of implementing a water supply scheme. This marked the beginning of the traditional leadership giving power to other people, something which was not easy for them to do because it required a new way of thinking as well.

But a vacuum remained because the individual mohallahs committees could not organize all activities and responsibilities for the entire water system. Two members from each mohallah team were then appointed to be members in the CRT which would serve not only as the research team but also the organizing body to coordinate the activities of the mohallah organizations. The community refers to this organization not as the CRT but as the Pani Ki Committee" (the Water Committee in Urdu). This hierarchical structure of village teams was a very new idea for them. It allowed information sharing and capacity building. The women's committee was also structured on the bases of the mohallahs.

The women's strategy is selected!

During the discussion of the experimenting strategies, both men and women participated to identify strategies to solve the drinking water problem. The women were allowed by the male members to participate in a joint meeting. The men decided that the best strategy would be to extend the distribution pipes of the old government water supply scheme to all of the households in the unserved area. The women argued that this was not the real issue at all and what was needed was a new water tank built on barren land which could supply water to an of the households with already existing access to the standpipes. The women felt that there was no need to extend the pipes if a system for securing the water, that is a type of tank, was not put into place first

In the end the men's strategy was not selected by the community, but the women's strategy was! The women convinced the men by arguing, " What is the Point of new pipe if the present pipe is not already being utilized? " The construction of the tank which the women proposed came to a cost of Rs. 20,000 and would benefit 70% of the community. The laying down of new pipe would have been more expensive and would still not have ensured that water would be secured for the system. The men gave up the idea of putting in pipes and instead focused on the construction of the new tank.

The selection of the women's strategy marked a major change in thinking. Traditionally and religiously the women in Hoto were not supposed to play a role in public meetings or in decisions about problems in the community. This was a major change from the beginning of the PAR process when the traditional leadership feared that women's participation in the PAR team meetings would lead the women towards becoming "baipurdah " which means taking the women out of their traditionally ascribed purdah existence.

A slow start to communal action

The village was very slow to begin the construction on the water supply scheme. One of the PAR members approached the Pani Ki Committee and said, "You better start the work or otherwise you will lose the funds. " The PAR team ended up having to take this approach towards reprimanding the community when they saw that the community was not getting on track to start the construction of the tank.

The very next day after this encounter in the village, the PAR team returned to the village. Talib, the young Pani Ki Committee member came running towards the PAR vehicle with dust on his face and clothes. He exclaimed, "Look we have started the work, all the community members are ready to work. " This young educated man was able to convince the community which was not ready to start the experiment for nearly one year that it was time to start or else they would miss this opportunity to improve their water supply. After hearing the warning from the PAR team he gathered the people together and informed them that the PAR was going to take the money back, and it will be a great loss to their community if they did not act immediately.

One reason for not starting the experiment work on schedule was that the community was still involved in the water dispute with Pakora. This had been a very negative experience for the villagers. It took this village nine months more to start working on the experimentation phase as compare to the other PAR communities. Later the PAR team learned from the women members of the Pani Ki Committee that "The Ghaziabad people were making fun of us because we were late in starting the construction. " This made the committee members feel embarrassed about their inability to mobilize the construction. Their response: "We will do the Tabor work! "

Winter was nearing and the committee members feared that it would become too cold to work which would lead to more delays in the work plan. They made a plan to manage the labor and the local materials required for construction. Households were organized into labor teams, and all men and women were required to work together to move rock, sand, and other materials to the construction site. Women had never participated in this type of communal labor before so this was a very new experience for the entire community. There was no road to the construction site so people had to hike over very rocky and hard terrain while carrying the materials in traditional

willow baskets on their backs. The construction work on the water tank was completed in November 1997.

How to make the system last

The completion of the water supply scheme did not mean that all of the water-related problems would cease. The Pani Ki Committee members realize that they need mechanisms in place to ensure that this scheme will be a lasting one. This is an ongoing process which requires the committee members to be flexible and to listen to the concerns of all community members **in order to make the system last.**

Some remaining management problems

One problem is that ten households were left without access to the new water supply because there was not enough distribution pipe to cover their mohallah. The severity of this problem was first realized by these families during the winter months after the scheme was implemented when they found themselves totally cut off from any safe and reliable water supply. The spring water, accessible only through the standposts, was not accessible to them and any water flowing in the channels which was traditionally used by them to charge their gulkos was now being contaminated by women who were washing their clothes in the upstream channels. As such, the increase in clothes washing in the channels rendered this water unfit for the ten families. Members of these households argued, *"We cannot get clean water any more. People with W water have started washing their clothes in the channels that were used for drinking purposes. Our houses have not been provided with tap water Now we cannot drink the tap water and the channel water is not clean to drink. "*

The female members of these ten households were the first to voice their concerns to members of the Pani Ki Committee. Those who came to Zainab, a Pani Ki Committee member, complained, *"We did a lot of work on this system but we still do not have water. The channel water is now very dirty We are obligated to use the water from the gulkos. "* These women started an informal type of monitoring system and began applying pressure on the Pani Ki Committee to devise a system to protect their water as well.

In addition to this problem the committee members identified the need for an operation and maintenance fund which could be used to cover additional expenses for repairs. This presented a fairly serious problem. They pondered an important question: How can a O&M fund be started in this village when people are so poor, and they have very little in terms of money to contribute?

Mechanisms of management: Water schedule and apricot kernels

To address the first problem, the Pani Ki Committee devised a system of rotation -- a water schedule -- which would take into consideration all of the water needs of the villagers. The schedule allows for four days during the week for the spring water to flow through the water supply scheme. During the remaining three days the water is not flowing through the pipes, but is instead allowed to flow freely through the water channels. In this way the 10 households are ensured of an adequate water supply to charge their gulkos.

The Pani Ki Committee realizes that this water schedule is not a long-term solution, but it is a means of addressing the immediate problem. Finding a long-term solution has become their first priority. Through brainstorming exercises they decided that acquiring additional pipes for these households would be the best strategy to pursue. The Pani Ki Committee is trying to find more funds to provide standpost connections to all of the households in the community. According to them, when they approached the government agency of LB&RDD, "*LB&RDD nay hum sei vada kia hei*," meaning that LB&RDD gave Hoto a promise to supply Rs. 10,000 to purchase additional pipes. Unfortunately, "*baad mai nahi dia hei*" (LB&RDD broke their promise and did not give the money). Committee members are exploring other possibilities to provide funding for the additional pipes. They have written a proposal and want to present it to other funding agencies in the region.

To address the need for an O&M fund, the women of the Pani Ki Committee took it upon themselves to begin collecting money. They went from house to house collecting Rs. 10 (approximately US\$.21). This money provided the basis of the fund. Today the Pani Ki Committee members are exploring other ways to sustain the fund rather than collecting money from each household. They feel strongly that households in Hoto are too poor and will not be able to make monetary contributions on a regular basis. But money does not have to be the only form of contribution they suggest. The Committee President explains, "*We are going to collect one kilogram of apricot kernels from each household this will be easy for every house to give because every house has apricots. We [the Committee members] will sell the kernels and the money will go to the fund*"

Mechanisms like these reflect a more communal way of thinking about solving problems in the village. "*Before we were not able to discuss problems and solve our problems. Now we sit together and discuss these things*"

A Ripple effect

Hoto has gone from a village with a non-functioning water system and virtually no social organization to a village with safe drinking water and an organizational structure to manage the system. But this long process is not just about drinking water. It has had a **ripple effect** on other aspects of social life as well.

Thinking at a different level

The PAR process did more for capacity-building in this village than any other project village. The PAR project has facilitated a process which has led people to build their own capacity. Now the community members are pushed to think at a different level. There were more than five alternatives presented to improve the water supply scheme which were articulated in the beginning, yet the committee members themselves were not really ready to begin thinking about those alternatives or possible ways of reorganizing the management structure of water supply scheme because of the narrow focus on the water rights dispute with Pakora. This issue was still dominating their thinking.

After the PAR exercises and through many meetings this mindset totally changed. The PAR team provided an important support mechanism coming from the "outside" to give an important push to the Pani Ki Committee. This was just a small push to help the community think about alternatives and to develop a sense of ownership of the project. Gradually they were able to consider these

aspect, and hence, their capacity was enhanced. Since their capacity was at a fledgling state, the community was not able to begin looking for other funding sources in the early stages of the project which could have eliminated some of the management problems in the end. If they had planned, they may have not suffered in the end with a portion of households remaining uncovered. Yet, by making mistakes they learned very much. Their thinking capacity became stronger, and they were able to begin looking for possible alternatives to new problems as well. It was a process in which "improved" knowledge was grafted upon the traditional or already existing knowledge of the people there.

After three years of PAR Project involvement the committee and the larger community started thinking more broadly about other village issues including: the resurrection of a failed AKRSP orchard project; finding a solution for another court case concerning the division of barren land among family members; building a school and a first-aid post, and income-generation activities through the structure of the AKRSP Village and Women's Organizations. The construction of the school and the first aid post were the result of brainstorming exercises being applied to these issues, the community members dialogue about this need in the community, and then communal action to see the idea become a reality.

"We have become beggars"

One of the Water Committee members, Talib, feels that the outcomes have not all been positive. Now that the Pani Committee is trying to acquire funding for the additional pipes, they are finding themselves going from agency-to-agency asking for money. For people in the village the idea that they have to go outside of the village to find funding is a completely foreign and new idea.. Before the water supply scheme Hoto people never went about asking for money from outsiders in this way. In June Talib felt strongly that, *"O' you have taught us how to beg. We went to the government. They promised us they will provide us some money but they did not give us any. "* While not all of the members agree with him, this is a new feeling of dissatisfaction with the process of development taking place.

Unity and trust

The CRT members were asked in June the question: What did you learn from this experience? The CRT members replied, *"We have learned itefaq (unity) and itemad (trust). "* This unity and trust was build through many different means, but mainly through thinking and reflecting together about their situation. The Pani Ki Committee members suggest that before the PAR Project, *"Hamarah ahpas mai nahi banta ta (We had a lot of misunderstanding among us). "* Through this they were able to see differences and spaces for making changes. Women have also been a part of identifying problems and analysing solutions. They have been a part of creating the increased unity and trust among people.

Hoto people are very proud of the fact that they have developed this unity and trust amongst themselves. Because of unity and trust in the village Hoto's once very negative reputation is slowly being altered. Recently, AKRSP has visited Hoto and their perceptions of the village have changed to more positive ones. AKRSP staff has seen the water supply scheme and the new work on the abandoned orchard, and now they too have become convinced that the community has the capacity to work together.

Changes in women's lives

In the beginning the women seemed passive in their attitudes about improving the drinking water situation, and the men were not interested in the water problems because domestic water work was not "their" problem. The women have changed from being passive to active participants. Women observe that significant changes have been made in their lives because of their involvement. One village woman said recently, *"We do not have the burden of bringing water now. We can stay home and take care of our children."* In addition to this time that has been freed up from mundane water work, they feel that they are able to spend more time paying attention to personal hygiene. *"We are washing our clothes in the water now that the water is available from the nulka (water) system,"* states one of the women members of the Pani Ki Committee. These female members are making new demands on behalf of the women in the community such as asking for hygiene education, and they themselves are selecting the subjects which they are the most interested in learning about in the future. Women are paying attention to the storage of water, they are taking care of personal hygiene, and they feel their knowledge and understanding about disease transmission has increased.

Probably the most significant effect is the demand by women for the education of girls. When the PAR team was discussing different hygiene conditions in the community, one of the women said, *"I wish my daughters could have got an education, but there were no schools in the village when they were young. When we see you, we want our girls to be educated too. But we know that the older girls cannot go to the school now so we are sending our young daughters to schools. We don't want them to live like us but much better than us."* In 1998 a new school has been opened in Hoto, and girls are being sent to it.

Sheikh impressed

Sheikh Ali Ahmad, the traditional leader says, *"PAR has helped the community in solving the biggest problem which was once impossible to think about. We have learned how to organize our resources and put them together to bring it in uye."*

When Sheikh Agha Saheb came on a holiday in summer and discovered that households were using tap water and that the people themselves had solved their water problem, he became very impressed. The Pani Ki Committee too became very pleased by his impressions, stating, *"Hamara Sheikh bahut khush hua la log saffani pi raha hei"* (our Sheikh became very impressed that the village people were drinking tap water). He decided to take what was learned during the CRT experience and use the team as a model for another village-based organization. He formed the Al-Muntazeer Organization with the goal of applying the same participatory approach to other issues of community development.

3.3 La Sirena in Colombia: Women taking leading positions

"The story of a community is also the summatory of those stories where one can find efforts, dramas and joys forever condemned to be forgotten".

María Mercedes Astudillo
Secretary to La Sirena Community Action Board

The community

"This is just like the street we live on and gives precisely to these properties; it leads once again to the bridge, where we have the billiards, Arturo's little house, and it even leads to my house; well this is the A block sector". This is how *doña Rubiela de Azcárate*¹⁰ introduced the map of the community and the sector she dwells in.

For many years La Sirena was a recreation center for the people of Cali, and the Cañaveralejo river was the place where those who like to take a bath found some amusement, back there in the sixties.

Nowadays, if you go to La Sirena, you can find a highly populated settlement, with a migratory flow coming from Cali and from the southwestern part of the country, where some social problems are found, such as the fact that some sectors are located in a high risk area, with no legal holding of their households; a great deal of settlers are devoted to informal economy activities¹¹ within the very community and in the urban area of Cali; and the Cañaveralejo river, which used to be a tourist attraction, is now highly contaminated. These were some factors dictating the fact that during the last twenty years there has been an important group of leaders trying to call the attention of the state entities to offer a way out to the most urgent problems in the place, thus trying to strengthen community organizations to accomplish a collective work.

Doña Rubiela, when describing the community, showed through her illustration, the situation of the 3800 dwellers of the community, where men and women, in their daily life through the narrow and steep streets, go back and forth trying to survive on something, either as street vendors, small merchants, employees of small and big companies, and young grade and high school students.

One of the most outstanding problems in the community, that has been approached by the community leaders group, was the procurement of a potable water supply system that could encompass the entire population, thus overcoming all untreated, hosed water distribution-caused problems.

The aquaduct

"Well, then ... here we have the water intakes. This one is the one for the Melendez river. This one is the Valencia's one. This is the Epaminondas'; here we have the problem that they are sawing,

¹⁰ La Sirena community leader and a member of the Community Researchers Team made up of co-researchers of the Community Management project.

¹¹ "Informal economy" is the one of those persons who are mainly street vendors, household servants, little family companies, etc.

cutting trees, there is organic matter contamination ... and here we have the filters. Here we have the problem that the water going down is too much because it has been designed for a given amount, but this is overloaded". Fabiola Gómez, describing La Sirena's water supply system.

Doña Fabiola Gómez, another leader that, in view of the very urgent needs faced by a district that did not have the necessary basic utilities, has been trying for twelve years to improve La Sirena water quality.

Since the very beginning the group of settlers, men and women, who were gradually building their houses, were able to build the first water intakes and install the first hoses to bring water to the community, a task that remained through time until the currently operating treatment plant was built.

"By that time, the most exotic character in the community was the plumber, who always had some rubber rings and pneumatics around his neck to repair the hoses", said don Luvín Orozco, Chairman of the aqueduct administrative Board every time he narrates the story of the onset of the aqueduct to the visitors from other places going there to know the community experience of the good quality water supply system management.

Within the process experienced by the community leaders, there has been a qualification in regard with the technical management of their aqueduct, and they have incorporated new ways to explain to the visitors the results accomplished: the treatment plant sand storing shed. where some meetings are held to explain the operation of the system, in a visit rendered by national institutions, EIC members, Community Researcher Team¹² explained, through a video, the process followed by the community to improve the aqueduct. One of the leaders began the presentation very proudly showing the video because the characters were the very dwellers, and then they supplemented the information with a Venn diagram¹³ indicating how are the relationships between the community and the institutions and, further on, they let the questions flow.

The community has been qualified with their active participation in several activities within the supply system, e. g. operational and maintenance workshops. These workshops aimed mainly at having an in situ practice about how to operate and give maintenance to each and all of the structures in the treatment plants. They are conducted by the very members of the community with

¹² Community Researcher Team (EIC, as per the Spanish acronym). A group of leaders and community dwellers that was made up to accomplish the Community Management project that used the participative action research methodology, who played the role of co-researchers.

¹³ A Venn diagram is one of the rapid rural diagnose technics, known by La Sirena Researcher Team during the community management project training phase.

the cooperation of some institutional enablers, and are addressed to all the members of the community, as a way to socialize the knowledge *“in order for the people to become aware of all the things that have to be done to have a good water and also to know the value it has, and to be known by the new members of the aqueduct administrative Board”*; says a member of EIC.

“With the construction of the treatment plant many things have changed in the community. For instance, diarrhea and other children’s skin diseases have been reduced, as well as cholera outbreaks”. Says doña Fabiola Gómez: *“If there were some outbreaks of cholera in Cali, in La Sirena, due to the good quality of the water there was no cases of it”*.

Water administration

“We have 510 members of the aqueduct; there are not water meters ... right now the meters are Oscar and Luis¹⁴ who are constantly knocking on every door so that people close the water faucets and pick up the hose. Well, we will talk later on about the incomes ...” said teacher Gustavo Barbosa¹⁵ about the administration of the aqueduct.

Talking about the administration of La Sirena aqueduct and its organization, is talking about a form of leadership where their conductors think: *“the aqueduct is to continue to be as it was born: a community aqueduct, otherwise, we shall miss the sense of belonging”*. Through the JAC¹⁶, we have been managing the aqueduct. Their various leaders were the ones who managed and promoted the construction of the system they have now.

The enhancement of the aqueduct became the central hub of JAC job and the one that generated a management dynamic and a collective participation, as well as power supply, streets paving by sectors, litter collection, and the construction of the school and a health post.

Although community leaders have accomplished great a progress in their management, their working style has been affected by political patronage, a vertical education with the prevalence of authoritative attitudes and a low capacity of reaching agreements for making decisions. When La Sirena Community Management project began, in 1995, it was thought that both the leading style and the JAC conduction was difficult to change in the short term.

JAA (the Water Board)

Within the participative diagnosis analysis made by the community and institutional working team, applying the Venn Diagram, which is a quick diagnosis participative tool, the observation was clearly made of the existence of some conflicts between JAC and the users. One of the main conclusions was that the water system should be administered by an independent board, with their own rules, and with the exclusive dedication to this service. Even during the exercise of problems

¹⁴ These are the names of the operator and the plumber of the La Sirena water supply system.

¹⁵ A member of EIC and former member of the JAA (Aqueduct Administrative Board, as per the Spanish acronym).

¹⁶ JAC (Community Action Board, as per the Spanish acronym). A state-fostered organization, elected by the community assembly, who was in charge of managing governmental resources that were mostly for infrastructure works.

prioritization¹⁷, the separation of the administration of the water system remained as a problem to be solved in the short term. Doña Fabiola, one of the makers of the aqueduct, accepted this situation as something that necessarily had to be done, but they were to be prepared for. In other words she accepted it, but not immediately.

Community internal conflicts and their leader's interests are at local level and are perceived as a reflect of the situation of the country. While communication channels and citizens participation have gained some terrain, the other side of the coin is the fact that culture of violence has increased. In the case of La Sirena, the harm caused by the disagreement of some people, about the administration of the aqueduct, with doña Fabiola's administration, resulted in the fact that she was substituted in this position, even before finishing the administrative period agreed for it, so she missed the opportunity to organize both water administration and the implementation of EIC-originated ideas.

Leadership

The old forms of leadership are very rooted. Working for an agreed participation and giving the opportunity to renew it, is something that is easy to be said, but requires both the time and instruments to do it. In the case of La Sirena, during the last 15 years, three groups have rotated for the management of the JAC either independently or through some alliances; on the one hand we have don Luvin Orozco, of the group of aqueduct founders, don Alfonso Azcárate and his wife, doña Rubiela, and doña Fabiola with her group of women.

"I don't like the word 'leaders', because I think is a manipulating word. I like the word 'coordination', for instance if we have a children's party we can organize the meeting with the participation of all of us. It is possible to do things in group" said doña Beatriz Olave.

The job done for one year in the Community Management project allowed EIC to be recognized by the community. The diagnose and problems prioritization task led to the fact that in 1996, when the new election of the JAC took place, four members of the EIC were elected for the community action board (out of five directors), with the peculiarity that there are two women: Fabiola y Rubiela, who are included in the same list, which is something that would have been impossible some years before due to the leadership rivalries in the community.

Doña Fabiola became the Chairwoman of JAC establishing some changes in regard of the previous administration, but her autocratic leading style some times did not let her to make the necessary progress in the administrative improving process, and she made the same mistakes criticized within the EIC: low participation level of the community to make decisions, and the management of the administration, which was focuses on two people.

Users inventory

"That is true: those who waste do not remember that it is to be paid, and they waste it; there are many complaints and so on and so for"

¹⁷ Problems prioritization. IAP phase where, through a series of creative workshops and by using some tools such as the prioritization matrix, the bridge technique and ballot, the problems found in the diagnosis were prioritized and hierarchy were determined.

The administrative mess of the various boards resulted in some delays in the payment of the rate, on the part of some users, thus creating a large group of delinquent payers, on top of the unsuitable use of the water and its waste.

This situation generated the need for the Board to prepare a users inventory and try some new alternatives to control the use of water, such as the installation of some water meters in some community key users, who were suspects of making an undue use of it.

“This has to be told to the rest of the community; it was there where I learned most and I understood all we have said about how important it is that the community itself is the one that has to do its own things. I never thought I would be able to make an inventory because that is always done by Dane people” said *doña Beatriz*, a member of EIC who, eventually, became the leader of this job team.

The institutional and community job teams held several meetings to coordinate and prepare the census. During the accomplishment of this activity it was evident that women were leaders; this is the case of *doña Beatriz*, who made herself responsible for accompanying the couples to walk for several blocks; and it is also the case of some men, such as *Oscar*, the plumber, who was a permanent support for all the groups, due to his knowledge of the community.

“We are able to know our own reality”, concluded the whole team.

Water uses and measurement

“Don't let run the water you won't drink”, is exactly the opposite of what the popular saying states: *“Let run the water you won't drink”**. *“but in the case of La Sirena we can not afford wasting water; now we are more people and there are still two nearby sectors that need treated water, and we could give it to them if we make a rational use of it”*. This is what *teacher Barbosa* said, a member of JAC and EIC, while planning the alternatives for water control. A way to make an experiment was installing water meters, and the other one was undertaking an education process.

With these two working alternatives, JAA decided to install some water meters in some households where a higher consumption had been detected, and to do this a dialogue was held with the dwellers. With the aid of the plumber, a questionnaire was designed to keep a record of the water meters installed, and the comments of the people in this regard.

Two months after accomplishing this job, the whole community and institutional working team had a meeting to reflect upon the experiences with the water meters. This is what *Oscar*, the plumber, said: *“You know what you are doing: obviously, where we installed the water meters, consumption is high. Out of the 20 that have been installed, I have the record of 122, 93, 80, 56, and the lowest one was 26 cubic meters. People did not like it at the beginning, but they allowed it to be installed and, therefore, after the second month consumption was reduced almost to half of the beginning, and so the neighbors did it, too. One can tell this, because there was more control in the use of water”*.

* A popular Spanish saying.

The board decided then to gradually increase the installation of water meters, since not every body accepts it. Some people think that this is something arbitrary and they say that they are not going to allow the meter to be installed. But they also recall that a measure parallel to the water meter was the educational process and this is why EIC members, who thought more clearly, decided to organize themselves to work within the seven sectors of the community and began to have meetings with the people so that a report could be made about the work accomplished to have pure water and understand why it is a benefit for their health. *"If necessary, we ourselves, the members of the team, shall visit a plant and, supported by the plumber and JAA members, the faucets would be checked house by house so that this problem can be solved, but obviously we would like to have some times your support, the one of the institutional team"*.

Community participation

I participate

You participate

We participate

They decide

In La Sirena, based on the aqueduct participative process, a dynamic process was generated for self-development and strengthening of the steps undertaken with the institutions, which resulted in the construction of the health post, the paving of some ways, the phone service, power supply, enhancement of the excreta disposal, and this is how they became an example for other communities because of the way they faced the problems they have had with public utilities in some marginal areas in the city.

La Sirena-generated participative processes have been encompassed by the relationship, interests and the power struggle in community organizations. It is worth outstanding the role played by women in the leadership of all civic activities in the place, because they have been dynamic agents of social processes, and the engine for community organization. Doña Edith Cáceres is recalled as the chairwoman of JAC, back there in 1975.

"Truly speaking, at the beginning it was tough, since all organizations were mastered by men, and when women wanted to participate in it, we had to impose ourselves by force. It was a hard task, but we let them see that we were also able enough, and we did better than them, and we wer never discouraged" said Fabiola.

We decide

The most recent participative works have been facilitated by the Community Management project and the culvert construction project that involved for its development all techniques and participative tools that have been learned from the first case¹⁸.

"We do not agree in the accomplishment of this workshop as you have programmed it, because we have not discussed it, as we did in the case of the Community Management project", said a member of EIC to a facilitator that was coordinating the culvert project.

¹⁸ Some techniques used were: Social mapping, Venn Diagram, daily routine, sociodramas, walks (sanitary inspection), etc.

For the above project, community was convened by JAC inviting representatives of the district population sectors who, through some participative workshops, prepared instruments for the participative diagnosis of the culvert design. At this very moment, the community team resumed the same kind of work undertook for the Community Management project, and used the already gathered information.

“The associative enterprise has affected the economic part because it offers employment to La Sirena’s family head women; and also in regard with the organizational aspects, because we have gained more and more experience in this organized work ... there are some women who are supported by their families and they help them with some household tasks, while there are others that have doubled the work” said doña Mercedes Astudillo, Chairwoman of the Women’s Associated Company’s Board of Directors, an associative enterprise that makes brooms and mops, and does the cleaning in some public schools.

The group of youngsters, that has been strengthening during the last 2 years, has accomplished some reclaiming and cleaning activities for the Cañaveralejo river, thus performing educational tasks with other youngsters to improve the image of the place and getting support from municipal entities. At present, they develop a popular library project for which they have procured an international donation. This qualitative change of management has been a strong engine given by the Community Management project. Likewise, this group is currently coordinating some ecological actions with other organizations in the place.

External actors

La Sirena community has been in permanent contact with several institutions, in its search of some district improving projects.

In the case of water, this project was accomplished with the University of the Cauca River Valley and Cinara Institute, where the design of the aqueduct and its FIME technology treatment plant (Multiple Stages Filtration, as per the Spanish acronym) aqueduct began to be designed. Other institutions concurred further on, such as Beneficencia del Valle and the Cauca River Valley Departmental Health Secretariat, and the Cali Municipal Health Secretariat, who helped to finance this job.

During the last years, some municipal institutions such as the Mayor’s office, Cali Public Utilities Company and the Community Development Secretariat have had a closer approach to the community because of the effects of the decentralizing process and the new public management scheme developed in Colombia. This is how some subsidized-health and culvert projects are reaching the community.

“Right now we are integrated to the municipal entities because now we are district and we belong to 19th community and we are going to see if this is good for something.”

Cinara, Cali Municipal companies and the Health Departmental Secretariat arrived in 1995 with an invitation for the community to participate in the international project of water supply systems Community Management, grounded on the application of the participative action research methodology, a process that has been executed for three years with the involvement of the

community, through the development of some activities that were identified during the participative diagnosis, the identification and prioritization of needs and problems, the practice of some solution alternatives and the preparation for some actions plans.

“Thanks to the project we got a deep knowledge of the community. This is important to create awareness in the community”. said *doña Rubiela*.

A new external actor are the so called “urban militias”¹⁹ who play the “control” role in the management of community organizations, use intimidated procedures and, some times, impose arbitrary criteria to some organizations.

The situation of the country, replicated in La Sirena, is a part of the “normal situation”... to take de facto measures or by force on the part of the some groups that are aside the law, to exert the control or to incline the scale to one of the sides of the community, depending of the interests they are defending. These are some procedures that many times are in frank contradiction with community-fostered democratic processes.

Doña Fabiola, the chairwoman of JAC was exerted a pressure to resign. This is more relevant, if we take into consideration that the previous administrations were not transparent and clear in the management of community money. Nevertheless, no “control” was applied on them.

¹⁹ Urban Militias: Organized groups formed aside the law, made up of guerrilla soldiers, self-defense groups and commun delinquency.

Chapter 4: On the way towards democratic management

4.1 Nyen and Mbemi in Cameroon: Democratisation in water supply management

Nyen water supply system is one of the community's systems that is well designed and constructed. With a number of standpipes and many private connections, it serves two villages, namely Nyen and Mbemi.

Not only is the system large, it also has features which are not common for most community water supply systems. As part of the system you will find an office, a spare parts store, a public shower and toilet, a fountain, and a market fountain.

How these features are managed is what we are going to discuss in this chapter. However, we are evaluating the system. This is just a description of what we found and how the system is being used.

The system management office

We know that management requires an office. In villages, this is usually the palace, the president's house, or a special room in a community house or center. A house that is constructed solely for a water supply system is not common, but this is what we found for the Nyen and Mbemi water supply system.

The system's office is constructed just below the storage tank. The whole construction is placed underground to keep the water cool. Trees are also planted around it to maintain the cool temperature. Almost every document concerning the system is kept in this office.

Among the documents contained in the office is a large hard cover ledger used as visitor's book. This book was used from the onset of the water supply system. It is divided into two parts, one for visitors' signatures and the other half as a summary record of financial contributions.

The main users of the office are the caretakers and the maintenance committee president. The current caretaker was trained by the previous one. In fact, the handing over from the previous caretaker to the current one has been very gradual and systematic through training on the job, working together, handing over responsibilities and supervision, which is the last step. This process has taken more than two years. The current caretaker now is capable of handling the office.

The spare parts store

The building is sectioned into two with a spare parts store just next to the office. Here you will find shelves stocked with sample parts and spares for system maintenance. In the event of a problem like a damaged valve or tap, a spare is immediately picked from this store for replacement.

The spares are bought whenever the committee has collected some money. Some are supplied as gift from donors who visit the store. Helvetas has donated more parts than any other donor. Plant International is another supporter of this well managed store

In addition to the spare parts, there are tools for system maintenance. Every tool acquired for any service on the system is kept here. Nobody is allowed to use the tool for personal use. Most of the tools were acquired during the training of the first caretaker. This was in the SATA (Swiss Association for Technical Assistance) Programme. The organisation is now known as Helvetas.

The caretakers who were formerly being paid by the Government are now left to the communities to support. The communities are now seeing this as an additional burden to the system management. The current caretaker is no longer as committed as the first one. He is young and devoted but has to live as well. Since the community members are not contributing as really expected, this young man's spirit has gone, but because of respect he does the basic services at his convenience. The young man does not deserve any blame. This problem is just coming up and the committee will have to use its experience acquired from the PAR project to deal with it.

As a means of sharing experiences, an exchange visit to Nyen and Mbemi system by the management committee members of Nkouondja village was organised during the PAR process. The visitors were amazed by the store, especially by the way in which the variety of spare parts were stocked and its advantages as the host community explained to them. Immediately upon return, the Nkouondja System Management Committee used the money already collected and bought pipes for the catchment which was still under study. The major advantage they got was that it avoided misuse of the money which is now in the form of material.

Public shower and toilet

I must admit that in nearly every Cameroonian town or city you will not hear of and let alone see a public toilet, not to talk of a public shower. Here is Nyen, a village not very far from the divisional capital with a shower and a toilet meant for the public. These facilities are in the same building as the system office.

Just behind the office is a public toilet. The entrance is at the rear of the building. This is probably to provide some privacy as the building is close to the road. This is important in these communities, because people do not want to be noticed when going to the toilet. In fact, most villagers will hardly ask openly for such places. The usual way is to ask from innocent children.

When we visited this toilet, the site was dirty and bushy indicating a complete out of use state. "Why this situation, Chairman?" we asked the maintenance committee chairman. He looked around and sighed. With a deep breath of disappointment, he explained.

When this system was constructed, the engineers had a good idea and we put so much effort in it. Since this house was near to the market we thought that this would serve people who have travelled from far-off villages. This way, they will not use the back yards of our compounds to defecate. We then added a shower which would enable them clean up themselves to enjoy the market. These services functioned well when the former caretaker, Mr. John Munuh, was in charge and was paid

by the Government. In those days there were even sanitary officers who come to inspect before and after market days.

When the Government stopped paying and eventually Mr. John Munuh retired, the village could no longer take full responsibility. However, when the sanitary officers were working we tried to maintain them. As this service was also dissolved by the state, nobody could really follow up the maintenance. In fact, many things have negatively changed in this country. Even the system we are trying to manage now was not really as it was before. The Department of CD was in charge and it was only in 1994 that Helvetas came and created the management committee.

With this disappointing explanation, the chairman promised that the committee would sit to look at how these services could be revived.

Community experimentation

Experimentation is one of the phases in the PAR field research. What we discuss here is not a result of the PAR project but due to intervention by Helvetas. A fountain with four taps is at the center of the market in Nyen village. This tap is used intensively on market days and always broke within six months. This has been a problem to the committee which sought the advice of Helvetas before PAR came into the village.

Helvetas then made a special request to Switzerland for a tap head which the committee bought at 12,000 FCFA. This is about three times more expensive than the ordinary taps found in the market. The committee bought two and installed them on the fountain. They also bought the common ones and installed those as well.

From their verbal report, the common taps got damaged not long after they were installed but for about three years now the Swiss made are still in place. Asking what they think about the cost, it was no doubt in their mind that the tap is worth the cost. Fast enough, they made a mathematical calculation and showed that they would have bought six common taps costing 24,000 FCFA which is twice what they got from Helvetas. Being cautious with these taps, they have removed one and stored it to replace the current one if it eventually breaks down.

Ask anybody in Nyen and they will tell you that the tap at Tad Market is the best in the world. They have trusted this tap and believe in it. What is left now may be to replace all the taps in the rest of the village. This could be quite expensive but it is not yet their priority.

The palace fountain

At the center of the Nyen palace field is a community hall called the MECUDA (Meta Cultural and Development Association) hall. There is a church and a school besides the hall. At the other end is a beautifully constructed concrete structure with an open ended pipe in the middle.

During our stay in this village, we moved around this structure, and sat on it for chats or conversations. Little did I border to know what it was until during one visit of the National Reference Group in September 1996.

As a gesture of satisfaction by the visit of these important people to the village, the former caretaker instructed the trainee to rush and bring the fountain head from the famous store. This was fitted as

the visitors stood around discussing. Suddenly water began splashing everywhere. You should have seen the laughter and running around. The chairman then made his speech and said it is a shower of blessing from Nyen. The former caretaker further demonstrated with other heads that change the shape of the shower from the fountain.

CRTV, the national radio and television cooperation was recording the events daily on video. The PAR team was interviewed besides the fountain. This was then broadcasted on the national television two days later, and everybody was amazed to see such a fountain in a village.

The fountain is a symbol of completion of the Nyen water supply system. As we were told, something significant had to be constructed for the inauguration of the Nyen Water Supply. The idea of a fountain was first proposed by the caretaker. Since many villagers did not know the importance of a fountain, they had to turn off the proposal. Being a technician in the project, the caretaker insisted on the idea. When the project was completed and tested for the inauguration day all the villagers were moved. A song was composed and sung on the inauguration day. The song goes like "*Nyen water comes from the Fountain. Those who drink it have a longer life*". This song is sung on important days related to the water supply system.

Tad Market

There are days to avoid when planning an activity that involves the people of Nyen and Mbemi as well as any other village of the Meta clan. Death celebrations are not on special days but when one falls on a day another activity is planned, forget about it. Do not expect anybody to be present. This is usually an unknown day. Tad market day is a well known day which villagers will never sacrifice for anything else.

Tad is a big market in the division with more than five thousand people attending from over eight clans. This market is located at the heart of Nyen village with the president of the Water Maintenance Committee having the nearest compound to it. This market has been existing for over eighty decades, far before the water supply system was established.

This market, though not part of the water supply system, has an impact on the management of the system. It can be a source of income for the system maintenance as well as a burden for the supply. These are good reasons to give Tad Market some special attention. More so, it has much influence on activities planned in these villages.

A burden to the water supply

For the water supply system, Tad Market actually starts a day before the actual market. Women in the villages prepare many things for the market. Cleaning bars, cooking food to sell, washing cloths to look neat, washing bottles for palm wine sales, and preparing corn beer are some of the things villagers do before the market day which require water. Water shortage or complete absence in the village on this day can be a hell for the women in particular. This is their only place to make some income and to meet with people they haven't seen for a week or more. At this market men and women come together. It is an opportunity for men to meet with women of their choice. Everybody tries to look at his or her best. You can now know what it means to deprive these people from water on the eve of market day.

Then comes the market day. It is like the world has come together according to their own assessment. For most of them they have hardly seen a population bigger than this. The number of vehicles from the provincial capital city, Bamenda, is really large. Everybody is trying to make some money.

Animals like pigs, goats, sheep and chickens are there for the whole day. All these animals need water, as well as the people selling and buying. Children from almost all schools come to this market. In fact, some primary schools close some time on this market day. Even if there is nothing to do everybody tries to attend the market because it is the only place they can meet loved ones, friends and family members who live far away. All these people will at one point during the day drink water.

At the beginning of the PAR project, we had not taken note of this day and had planned activities for these communities which fell on Tad. We arrived and found that the meeting point at the MECUDA hall was empty. Not even somebody to ask what has happened. While going to Mr. Tassi's compound, we passed many people on the way. Then it came to me that it was Tad Market. Still I could not understand why they will give priority to this market.

Luckily, we met Mr. Tassi about leaving his house for the market. He saw our vehicle that drove into his compound and he immediately exclaimed that he had forgotten that we were coming today. The reason being that it is a market day and everybody concentrates on market preparations. He said that even if he had informed the people, nobody would have come. Before finishing his excuse, we were being urged to follow him to a bar to have some palm wine. While sitting in the bar, he then told us that we should never make the error to plan anything on this day. It is a special day and the only day every villager can make some money.

But, can we not still meet for a few minutes with at least the committee members? He smiled and said o.k let us go around the market for them. We met six persons and people said that we they would come to the meeting venue at the market. We went there and waited for over two hours while nobody showed up. Mr. Tassi then turned and asked us if we really thought these people would come here now. That he wanted us to see for ourselves. We had no choice but to give up the plan for another day.

But not all was lost this day. We returned to a bar facing the car park where the market fountain is installed. There were many people crowded there struggling for water to drink. We then asked Mr. Tassi why there was no control at the tap and whether he thought that this is wasting of water because one person drinks and allows the tap flowing for the next to come. Those with containers are also there doing the same thing. That is when he began to narrate to us the history of that tap.

According to his story, the original standpipe would not even last for a month because children from other villages which do not have such systems come, play and make fun at the tap. Some even go under to soak themselves when it is hot. The village could no longer support the frequent damage of the tap, and they requested help from the department of CD. CD came and constructed the present fountain with four taps. They were financially assisted by Helvetas. The taps installed still did not last long because of the same problems. After having replacing them frequently, they then asked directly from Helvetas to help get a more durable tap which is being used now.

He went ahead and explained how the storage tank dries up the following day after market day and causes serious problems to the village. *"We know this but it is difficult to control because everybody is busy and no one will like to come and sit there"*, he told us. Then why not build fence at least? He accepted this as a good idea but with doubts as to whether the users will not push the fence down.

Management of the fountain

After narrating the story, we looked more critically into the possibilities of improving the management of this center of life for Tad market. This was over some beer in stead of palm wine. This is the best you can offer a village man on a market day. He would spend the rest of the day with you and give all the information needed.

At this point of our discussion, Mr. John Munuh, the former caretaker, came in shouting that we left them to come and drink here. Mr. Tassi introduced the discussion and added that another problem at the fountain was drainage which permitted animals to come and rob themselves in the mud. The environment was really dirty at times, especially after wasting water on market days. When the request was being made for the fountain, he also asked that the drainage should be included. That is how the embarkment we can see was constructed.

On the management of the fountain, Mr. John explained the difficulty of controlling the use on market days. But what about fencing it at least? We asked him. He doubted very much the usefulness of a fence because of the huge population that uses the fountain. He however indicated that it could be done just to control animals going there.

What do you think about employing someone to sit there and introduce a fee which can be very small like 25 FCFA for any user. This money can be used to maintain the system and even to expand it. He laughed. *"You ask people to pay for water?"* He just could not understand. He went further *"Those are things you people do in towns. Water is a free gift from God and cannot be sold. That is not possible"*. But don't you think that this is a burden for the community? *"Well the council in Mbengwi"* a nearby town *"is responsible for this. We have asked them to compensate for the maintenance but no answer is given. But every market day they come and collect market fees without giving us anything"* he replied. Mr. Tassi then added that before going to Helvetas they had contacted the council but no response was given.

Mr. Tassi actually admitted that management of the fountain needs to be closely studied and some be done because he receives a lot of insults from women in particular. That is when there is no water, especially after the market when women going to their farm, they usually pass and insult him asking if she has any problem with him that he has decided to stop water from flowing at her quarter. They will hardly understand anything he tries to explain to them. They both agreed to go and see the council.

This discussion ended our very interesting trip that day on market day. We would have preferred to see them impose a very small fee but they do not seem to see it yet. We hope they will understand one day and that this may make very big source of income for the maintenance of the system.

First warning

The maintenance committee in Nyen is having its first executives which is led by Mr. Tassi Lucas as chairman. Right from the beginning, the villagers have been grumbling about his style of administration which to them is authoritative and biased. During the diagnosis phase this issue did come up but it was blamed on Nyen and Mbemi rivary and not the administration style. When we tried to discuss it, one lady then said in a hot debate on his style that we had come to repair and not to distroy, that this issue is the responsiblity of the village and not ours. We immediately let go of matter and asked them to resolve it.

This time around during the experimentation phase, things were not progressing and everybody including the Nyen people were not happy with the system. After a number of interventions by the follow up staff from CD Mbengwi, it was clear that a meeting was necessary to discuss the matter.

Mr. Tassi seems to have been caught by the saying that *“You can fool some of the people some time but not all the people all the time.”*

The MC Chairman blamed

Since the session on planning the experimentation at Nyen and Mbemi communities, nothing had actually taken place as planned. The community members were not having a good feeling of the approach. There were activities done to improve maintenance but not as was planned by the community. Worries were on everybody’s mind and accusing fingers were pointing at the chairman.

Anybody who is questioned will say the same thing. Managing people is not easy and sometimes people like to attribute blames on others or leaders. Thus we went to visit the former caretaker who is well vested with the system and its management. In his house he narrated the whole story why experimentation as planned would never take the intended course.

Not different from what others had said, this man explained that he was very disappointed with the whole management style of the chairman. He blamed the chairman for ruining a system which into which he has put almost his whole life. He explained how he used to work alone when there was no committee and everything was functioning well. Now the chairman is making the system to eventually break down. As he said, the two villages are almost tearing apart because the chairman does not want to share responsibilities, does not delegate powers or duties and even does not inform people of what is happening.

“How can you imagine that his vice is there at Mbemi but the chairman will hardly assign him to lead certain activities. Even myself as the only technician in the community who knows the system very well is not informed about many things. Even some of the assignments that you left behind for us to do, like the implementation of the planning which was highly appreciated, are not done because everybody is waiting for him. We know that he is very busy with other things like his involvement with Plant International, his political party activities which are always taking him to Mbengwi, any others, but he could delegate his vice to lead”.

MC members rebellion

When dissatisfaction was raised against Mr. Tassi, the Chairman, he snoopied and insisted on his approach. When we sometimes advised him to change and be more open and work collaboratively he would accept but change nothing. He did not expect that at one point his personality and office would be threatened by his colleagues and community members.

After a training workshop at Nkouondja, Mr. Tassi was enthusiastic to implement a few activities. Unfortunately for him he needed the support of the other MC members. As we went to him to find out about the progress of the activities, he reported that since he returned from the workshop he had called three meetings, the first only three persons came, the second none attended and the third only two. *"What can I then do Mr. Andrew?, tell me?"*, he complained *"People here are very uncooperative and always wanting to sabotage me"*.

Without making the story long, we discussed and agreed on a general meeting for which he promised to mobilise the entire village. Others were contacted and they all agreed to this meeting. I could see in everybody's eyes that the meeting was necessary to re-address management problem.

The meeting with a hidden agenda

Tension was high as members trickled into the MECUDA hall with little conversation. We were there to facilitate the discussion and this was not an easy job knowing the situation which was now degenerating into a Nyen Mbemi conflict on the system. After reflecting on the method to handle this, we used the experience of experimentation. The problem was identified and generally agreed to be the non-functioning of the MC. We then went into causes and consequences. Everybody could see the damage the problem had caused. Then came solutions. Options were provided which included desolving the present MC and electing a new one. The chairman stood up and gave his report which was highly protested by others. The hall was almost going out of control when we had to beg for order.

The options lead into a debate on whether to desolve the MC and re-elect or to give them another trial with expected changes in management as expressed and accepted by the chairman. An old lady stood up and asked, when a child is faulty and accepts his faults do you send away the child or take him and tell him never to do so again? The tension went down, but to conclude and take a decision was still difficult because the people wanted the chairman to go. Since democracy is a strategy in such difficulties, election was conducted. The option on a six months trial period won and the current MC was given another chance.

What we noticed, was a plan from Mbemi community to take over the leadership. They had mobilised their population to outnumber that of Nyen. This was their hidden agenda. The Nyen people did not notice until when the proposal for election came up. One old man from Nyen actually argued the election that they were not many and the Mbemi people quickly responded that it was their problem because the Nyen people knew about the meeting. He explained that somebody died during the night and the people had gone there. Nobody from Mbemi listened to him. The saviour for Nyen was the lady who asked the question about a child who apologized. This changed the intension of older men from Mbemi and resulted in the election for another trial period.

For the first time, the chairman of Nyen and Mbemi MC believed that the people have power. He was so sober and polite. We believe he will never forget this day.

All communities which have had some management system before PAR have gone through this process. It is unfortunate that Nyen and Mbemi are going through it only now towards the end of the project. In Nkouondja a similar process even resulted into exchange of blows, and in Bokito Rural, which got the former president of VDC, people humiliated him and woke him from his sleep. In Nyen and Mbemi similar things happened. The only good thing about this is that the management had changed to a more participatory and responsible general assemble. It makes management to discover the power with the population. It also brings reconciliation at the end as well. We believe that things in Nyen and Mbemi communities will change for the better.

4.2 Ceylan in Colombia: Overcoming political interference

"In this space that you offer me I would like to share with you this short experience that we have had in Celán so that you can appreciate the strong tradition we have in water management. We have experience of the management of public services, which include water, the sewage system and rubbish collection. We may serve as a point of departure for those communities which, together with their knowledge and what we have learnt, can work together to build their organisations, also because we speak the same language and use our own space. At this moment, I would call on everyone to get organised and support the public service community enterprises that we are responsible for, so that in this way we may perhaps receive help more directly from the State and from the institutions for what we are doing. We could have this support and so be part of this development and of these connections, together with what we ourselves have and have developed at local level, so that this may be the point of departure to strengthen what the institutions want, what the communities want, what we ourselves are waiting anxiously for." Alberto Avila

The community

The village of Celán is situated in the coffee-growing area of the Valle Department, which at the present time has 3,000 inhabitants. It is also well-known for its economic activities, with coffee production being the most important crop, followed by plantain. These products are sold in the region through co-operatives which have been set up by community leaders. These have helped local development and have created a tradition of social work. The organisational dynamics of the region help to explain the early setting up of an organisation called "Public Services", which manages the local water system at an administrative and technical level and which has been described as a successful model. The system of autonomous administration which has been in existence since 1989 was set up prior to the process of decentralisation and the models which are being developed in the country are connected with organisations which have a community basis for the provision of public services.

The history of Ceylán has also been related to social and political events in the country at the end of the 40s and the beginning of the 50s and has been the scenario of the troubled times which are part of the history of Colombia.

"In 1948 in the country there was a period of political instability which led to generalised civil violence which Ceylán did not escape. Because of its strategic situation, it was the refuge of bandits such as, "Sangre Negro", "Chispas" and "Cenizas" as a consequence of the war between the political parties. Most of Ceylán was burned and destroyed by a group of bandits led by "Lamparilla" together with such famous dangerous ruffians as "El Mosco", "Tumbapuertas", "Chocolate" and "Pastuso". During 1951 violence continued in the country. Ceylán was once again taken over by so-called bandits led by "Sangre Negro" and "Tirofijo" who tried unsuccessfully to set fire to it again."

Throughout the years, Ceylán has been the centre of reference for the mountainous area of the town of Bugalagrande and other nearby towns, such as Tuluá and Sevilla. The political influence of its leaders has transcended its limits. In 1960 the Agricultural Institute was founded in the village of

Barragán in the urban area of Tuluá. Only a year later, local leaders campaigned before the local government authorities to create a similar institute in Ceylán.

In 1973 there was a struggle for land rights and, together with peasants, they set up the Association of Peasant Users which successfully acquired land to redistribute among the peasant families who were most in need.

Ceylán has always had a strong influence on the town demonstrated in the permanent election of one, two and up to three people as local councillors of this local government organisation.

The water system

“The water system of Ceylán began logically with the taking of the water. The name of the stream where the three water sources are in the water basin is “Las Violetas”....If you go down to where the water system starts, on the way you can see that there is a problem of deforestation. The land has a 65-70% slope and people are cutting down trees to plant manioc... In the same area we have problems of pollution because of excrement from farms, which are emptying sewage waste into the canal which supplies the water system... This is a coffee farm where fumigation is carried out and fertiliser waste is also thrown into the canal. Also, coffee has been planted along the edge of the canal.” Presentation by Oscar Medina about the state of the water basin of the community water system.

The strong leadership of people like Guillermo Vásquez, Jaime Ortiz, Alberto Avila, Oscar Medina and Carlos Julio Alfonso has led to the modernisation of the water supply, the construction of the drinking water treatment plant and the setting up of an organisation to do with the administration and functioning of the water system.

There is a great difference between the first water system established by Father Hector Salazar around 1946, with a water tank on the banks of “*La Quebrada La Elvira*”, with bamboo pipes leading to the water supply system which is currently in operation in the community.

Miguel Arévalo, the treatment plant operator, knows all the secrets of water use of the inhabitants of Ceylán and talks very knowledgeably about details of the plant operating system both to the local inhabitants and to visitors who regularly come to find out about this successful community experience in public services management. “*We are always ready to receive national and foreign visitors*” says Carlos Julio Alfonso, the administrator of the Public Services Board when he refers to their willingness to be visited by students, officials and visitors from other countries who are interested in their experience.”

“We are always able to learn from the people who visit us and there is always something that remains in the community, after these visits. There is always some advantage for ourselves” said Mr Alberto Avila, leader and local community councillor.

Ecological Group

The ecological group of the Agricultural Institute of Secondary Education is made up of 12 students from all courses. This group has been part of the Community Research Team (C.R.T.) since its creation. “This is a way of training new leaders,” said Mr Alberto Avila. It was the students who

took the initiative in drawing the history of Ceylán, while older leaders talked about the important events that had happened in the community. Sonia Rodriguez, a final year secondary school student, was one of the most enthusiastic of all. It was she who co-ordinated the "Health Inspection" carried out during the participative diagnostic report. The Ecological Group also supported other community organisations and institutions in helping with the reforestation of the water basin, planting bamboo and *Urapan* trees, and making occasional visits to keep an eye on their growth. This has not been easy as farm owners often cut down trees, so some of the students have decided, together with Public Services, to involve the owners in the process of reforestation by inviting them on a visit to the water basin and by organising educational talks.

The involvement of the school ecological group in the C.R.T. has given a different dimension to the participation of students in local affairs. They have gone out of the school surroundings in order to work together with other community leaders, organisations and institutions. For instance, the students had an important role in carrying out the participative diagnostic report on the state of waste water in Ceylán, both in the collection and analysis of qualitative and quantitative information and in the workshops held in the school and in the community.

Administration

"The problems that have been detected in the administration are not internal, but probably external. What are they? The absence of the community at meetings, even if posters announcing these are put up; because out of 496 families who are users, there have only been 46-48 people at the meetings and this is a sign of the lack of community support. There are various explanations. One is that people don't have time; some people don't like meetings, others feel that it's working well and we know how to do it. There is another theory that is related to politics. In villages there are rivalries and disputes because of political differences." This is how Mr Alberto Avila, the councillor of Ceylán in the locality of Bugalagrande introduced the topic of the problems in the water system administration.

Public services

The public services company in Ceylán has been organised by the community since 1989 to take care of the management of the water system. Later, it was also responsible for the sewage system and the final rubbish disposal of the locality.

Gradually, the public services company has grown into a small business and today it has an office designed to carry out the administration and to attend to the users. It also has a small shop where articles to do with water services are sold. In the administrative part, it keeps a record of the income and expenses of the water system, making use of bank books, cash registers and bank accounts and a kardex system etc. for this purpose.

The reputation of the public services company in the management and administration of its water system has led to recognition from other communities and institutions in the area as a model community. The level of development achieved suggests that they could offer an advisory service to neighbouring communities.

Political Conflict

Mr Alberto Avila says that the administrative problems of the system are not internal but external to the company and are due to the hostile reaction that the public services company has aroused in one sector of the community, fanned by a political group with other interests.

In the home visits carried out by the C.R.T. in the participative diagnostic phase of the water system, some users manifested their discontent with the public service management and proposed changes in the administrative management of the system; others defended the present managers. At that time, elections for members of the Community Action Board (C.A.B.) were taking place and the atmosphere in the community was influenced by the political groups who were struggling for power.

The C.R.T. decided to intervene to help in the process of reconciliation of the different groups and called on the leaders of the two groups to revise, analyse and discuss their differences and to reach points of agreement in the two working proposals. Thus, they would be able to build on the basis of points in common and present an unified proposal to the community and support the election of representatives of both groups to the C.A.B. At the end of the meeting, there was an agreement reached between the parties and another meeting was called to define the names of candidates for the positions and the terms of the agreement.

This last meeting, however, was never called, because the political opposition group, which wanted to change the current membership, decided not to recognise or accept the agreement reached in the first meeting. As a consequence of this confrontation, the traditional leaders who were in charge of Public Services and were a majority in the C.A.B. decided not to nominate any candidates for election, thus, leaving the road open for the other group but making sure that they would continue in Public Services.

The most important user criticisms of Public Services are related to the lack of communication about aspects of the system and about the value of the monthly tariff. This is a good opportunity of improving the channels of communication between Public Services and the users. "We distribute information leaflets on a monthly basis to the community, together with the monthly bill," Carlos Julio Alfonso, the administrator emphasises

It is possible that the strategy of using leaflets as a means of communication has not been very effective because few people read them. Many throw away the leaflets when they receive them and others are illiterate. It might be better to have meetings in different area or neighbourhoods, or other more informal events with the community which might lead to a better and greater degree of communication.

In spite of the difficulties involved in the administrative procedures carried out by present members of Public Services, the organisation has been recognised by outsiders (visitors and institutions). However, due to political problems, some people refuse to accept what has been achieved.

Conflict resolution

The management of conflict is part of community work and it is always based on a social relationship. Therefore, it usually increases or diminishes in intensity. In spite of this, the "cause" is

very important because it shows the development of the relationship and the point where tensions increase. Very often, this has to do with problems of communication and with personal or group interests. This is the case of the conflict between the administration of the Public Services water system and the operator - water engineer of the water plant, which affected operational activities and the maintenance of the treatment system. Because the latter's reaction made him use his knowledge as a means of manipulating the C.A.B. and to establish an alliance with the opposition group which wanted to take over the administration of the water system. For its part, the C.A.B. wanted to use its power to remove the water engineer. This conflict took place during the development of the project. As a solution, it was agreed with each of the parties to carry out a workshop related to Operation and Maintenance in order to socialise and widen this knowledge.

During the three days of the workshop, there were times of reflection on the function and responsibility of each of the actors who were involved in the administration and operation of the system. At the end of each event, everyone recognised the importance of the roles of the others. Miguel, the water engineer, in his evaluation of the workshop said, "I am happy that the administrators and everyone else recognises that my work is difficult and involves great responsibility on my part. I see that I have made serious mistakes which have affected the management of the plant... and I think that I was one of those who has most benefited from this workshop. Not so much for myself, because I already knew all this, but for the administration and the people in charge because they didn't know the system. For this reason there were some difficulties because they didn't know about all the work of the plant and when they found out, they could judge better. This has meant better relationships and everything has returned to normal." Mrs Gloria Lida Soto, financial controller of the Water Administrative Board, concluded, "really we weren't aware of the importance of the work carried out by the operator and the degree of responsibility there is in the management of this plant. There is a need for the collaboration of the administrator in order to distribute the work load better... Sometimes, when we criticise or judge a person without really knowing his work, I think we are not acting correctly. I think this is the mistake we were making." The workshop, by means of dialogue, helped to create a sense of respect for others and all parties understood that it was possible to solve the conflict and to have good working relationships and teamwork.

Community participation

Identifying the history of community action in the area of Ceylán has enabled us to relate those factors which have contributed to model the participative practices and the community management that the inhabitants are carrying out today.

It was discovered that the business tradition that the community has established, has had an influence in the level of management and administration of the public services. Due to the production of coffee and other crops, some small producers have organised themselves into an association to commercialise and distribute their products, because of problems with intermediaries and the difficulty of communication access for the transport of products to the storage centres. This organisation has been extended to other products, such as honey and clothes, made by various women who have also joined together to create a small business. In a similar fashion, the organisation of the Public Services, which includes the water system, sewage, rubbish collection and, at one time, the post, was not difficult for the community because it had experience of working together. It has been easy in Ceylán to create a legal organisation, to negotiate legal status, to draw up rules and regulations, to allocate functions, to elect the managing board and to keep accounts.

On the other hand, there is a tradition of political work in the area with the strong influence of traditional political groups, but at the same time, the great influence of armed groups since the time of the civil war in Colombia (1948-1952) up to the present-day guerrilla groups has had repercussions on the level of awareness of social problems in generations of Ceylán leaders over the last 40 years.

However, this has also been a limiting factor in the history of community participation in Ceylán and has led to an often very inflexible position of certain political groups who have made it difficult to reach agreed solutions. In some cases particular interests have prevailed.

The level of organisational development in Ceylán is also related to the difficulties which the inhabitants have had, which has meant that their leaders have learnt very quickly to move and negotiate with local, departmental and national government organisations and with some N.G.Os, in order to enable the rebuilding of the village when it was set on fire and in order to provide the different public services that the village now possesses.

These reflections on community participation and their success in the administration and management of the public services has led the community and institutional team to reflect on its history in order to identify multiple, dynamic key aspects, which have influenced the process of participation. This means that this participation may lead to different actions at different times for different people and it may help us to see why there are ups and downs in processes of participation and to understand that these are heterogeneous and need to be revised constantly.

External agents

The waste water project

“Participation has limits and this process and its leaders cannot be expected to solve everything in the community. The State also has to assume its role and not leave everything to the people. Everyone should assume their own responsibility. We don’t expect the State to do everything, but we don’t expect everything to be handed on to the community,” Alberto Avila. This was Mr Alberto Avila’s analysis when he was working jointly on the Ceylán action plan, where one of the priorities discovered in the community diagnostic report was the lack of treatment of waste water. It was the C.R.T. which began to look for a solution to the problem. This was not difficult because of the recognition of its leaders and their capacity to mobilise the community before such institutions as the C.V.C., the local Town Hall and the University, which have been associated with the joint actions to set up a project to solve the problem. At present, the project has passed from the design phase to the construction of the waste water plant, which is situated in the local ecological recreational park.

In order to complete the community diagnostic study of waste water, the C.R.T. followed the same participative methodology as in the Community Management project, “we are already organised for this in the C.R.T. with the students, the community organisation, the women, and we have the necessary participative means of doing so,” says Oscar Medina to the group of institutions who are working on the waste water project.

4.3 Pakora in Pakistan: How to manage an originally unwanted, given water supply system

Background

The International Water and Sanitation Center, IRC the Netherlands initiated a Participatory Action Research project "The Role of Communities in the Management of Rural Water Supplies" in 24 communities in 6 countries with financial assistance from DGIS (Ministry of Development and cooperation, the Netherlands). For implementation IRC selected partner institutions in each country: Columbia, Guatemala, Cameroon, Kenya, Nepal and Pakistan. The project team in Pakistan is carrying out this research with 4 communities Ghaziabad, Hoto, Pakora and Hasis in the northern areas of Pakistan. Community Research Teams (CRT) have been formed in these communities to take care of water supply management issues and to participate in the PAR activities.

Introduction

Pakora is situated in District Ghizer of the Northern Pakistan. It is at a distance of 36 km from the district headquarter. The river of Ishkoman lies on the left of the village. The community has a total household of 170 with a total population of 17,000 (according to the base line survey carried out in 1995). The crops in the village are maize and wheat. Like Hasis (one of the PAR villages) fruit is abundant in Pakora too. There are three schools in the community, the High school for boys administered by the Government, a primary school for girls also run by the Government and a DJ middle school for girls formed by AKES (Aga Khan Education Services).

The literacy rate among women is 5% and the male literacy rate is 10%. All the boys (200) and girls (230) go to school and the literacy rate for both is 100%. The drinking water source for the community is Taps, water pits Streams and channels. There has been a construction of an improved Water supply scheme and that covers 155 households. There was not any water committee except the traditional committees e.g. the Numberdar, Falahi Committee, Salisi board and Welfare Board. First Village Organization was formed in 1983 and 62 households have membership in the organization.

The first organization for the women was formed in 1991 and the number of its members is 40. These organizations were formed by AKRSP who is involved in income generating activities in the area. This case study has two main parts: the traditional water supply system in the community and improved water supply by the LB&RDD; PAR interventions and its outcomes.

Water and the community

Traditional water management

Similar to other mountain villages in Northern Pakistan, Pakora people relied only on traditional water sources for survival. It is not so much that the water has always been scarce, but that the seasonality affects the amount of water during winter season. While in summer there may be an abundance of water and even occasional flooding, during the winter the flow decreases. The primary source consists of waters from snowmelt, which flow down from the mountains into human-made channels. These channels guide the water throughout the village and bring water near

the mud-brick houses where it can be used for drinking, washing clothes, cooking and bathing. In the summer domestic water is either collected in pots or jugs from one of the many irrigation channels winding through the village. With the passage of time the Ishkoman River also became a source for those who were settling near the river. The increase in population not only made the families to be settled near the river but also made them to built homes far from the irrigation channel and the streams. This resulted in long distance of collecting water in winter as in summer the water could get to the families through small streams.

In the winter the water hardly come through the channels. All these problems lead the community to build Gulko (water pits). Water pits were constructed in order to reduce the water collection distance in summer and winter and to keep the water relatively cool in summer.

The water channels are totally unprotected they become easily contaminated from agricultural, livestock and human activities. The microbiological contamination results in a high incidence of diarrheal-diseases particularly among children under five years of age during the summer months. Skin-diseases are also common.

The improved but granted water supply scheme

The water supply from the LB&RDD was given to the community for a political reason. It was not a demand form the community. One of the community members Aman Ali was the member of the Union Council. The people elect the members of the Union council. When the councilor from Pakora won the elections. He granted his village with a water supply scheme that he got forms the LB&RDD.. The scheme had been given to us on political basis, Afizali CRT president says. The community did not accept it when it was given to them. The reasons for the rejection of the water supply scheme were; the community did not want to provide free land and labor for the scheme. Actually the community rejected this water supply scheme twice because of the above reasons. At that time water was not a big problem for us so we didn't accept the water supply. Hakeem Alishah, the CRT member said. For the third time, Mr. Syed Madad Shah, the District Council Chairman (he is also from Pakora) again approved the scheme from LB&RDD. The community was still not willing to participate in the scheme. The UC member could motivate 20 people from the community to Syed Madad shah, Unus Shahji (the then Union Council member) and the 20 community Members started the scheme and could get a piece of land for the water supply tank from one of the villagers. In return he was to be appointed as the caretaker of the system from the LB&RDD. The chairman also arranged Rs. 40,000 from the Northern Area Administration in addition to the pipes and cement provided by the LB&RDD. The Rs. 40,000 were spending on the labor for the construction of the water tank. After the completion of the tank, the team tried to convince the community. The community demanded for household connection instead of the standposts. Their demand was accepted by the LB&RDD and the community took part in the installation of the pipelines.

Community participation in the planning

The community participation in the planning of the improved water supply system was totally negligible. The 20 community members were taking part in the scheme because of their affiliation with the two political leaders. The whole households could not get the connections and the people think that all some of the water pipes might be stolen as there was no check and balance. The CRT

members refer it as a one-man show. The project committee and the sub-engineers of LB&RDD identified the source, site for the tank and the layout of the water supply system.

Female participation in the project was not very active except of their traditional role of cooking and taking food to the men working on the site. Men have undertaken the whole process. We were very happy to get clean water at our doorstep. We used to walk three hours each day to collect water. These were the remarks of the women CRT members while evaluating their water supply system.

Non-sustainability of the granted scheme

The source of the system was highly turbid, particularly in summer. There were not other sources than the nallah to feed the system. The site selected for the tank was not appropriate. The reason given was that there were no technical feasible sites. The appropriate site identified was a property of one of the villagers and he was asking money for it. The community could not afford to give the men the money. The tank has been built on the channel that supplies water for Shunas village. This channel has been built through a steep sliding place, and there is a frequent collapse. The collapse occurs mainly in winter when water freezes. This is the major reason for the community not having access to the water supply of this system.

The poor design and the unsatisfactory quality of the construction were also contributed to the failure of the scheme. Because of the unsatisfactory quality, the tank was deteriorating day by day. It needed repairing. There was no proper sedimentation and filter system in the tank. The supervision of the on going construction was the Engineers duty. It could not be monitored properly because the sub- engineers were not on the construction site regularly and were usually out of town.

Lack of participation on the community side in the water supply project has been the only reason for the failure of the project. If there were more people involved in the project, there would have been more ideas, more solutions to the problem and the solutions would have been long lasting. This was the comment of the CRT members during the evaluation of the improved water supply scheme.

The existing committees

The community of Pakora has formed an Islahi Committee of twelve members. Two Muslim sects live in this village with three Mosques and three Jamat Khanas. The membership to this committee was based on the sects. Two persons from each Jamat Khana and 2 persons from each Mosques were selected as the member. This committee is responsible for the management of all the village affairs. The committee has made some rules and regulation, regarding the use of channel and stream water e.g. washing of clothes near the channels was restricted. The committee decides the amount of tariff to be paid

A Panee ki committee had also been formed which is responsible for collecting tariff on water from each household and pays the Chowkidar, the caretaker of the tank and pipelines. The Salisi Board has been formed by a specific sect but it plays roles in the conflicts raised in the community.

The Numberdar, the traditional leader also has a great influence in the community. He leads the community on the communal meetings and also leads the groups of the community members outside the village. In Pakora because of the strong political leaders, the Numberdar could not get much

of the chance in leading the village. On the whole the community people were depended on the political leaders of their community and they could not think of any initiative to be taken by the villagers.

Paying the pipeman

Abdul Manaf, the land provider of the tank was appointed as caretaker of the tank and the pipelines. Although he was promised to be nominated as caretaker by the Syed Madad Shah, the political leader. But the Falahi committee formally selected him. The committee decided that he will be paid Rs. 800 per month. It was the Pani ki Committee's responsibility to collect Rs. 5 from each household and pay him. However, he was not paid regularly so he did not perform his duty. LB&RDD appointed Abdul Manaf temporarily for six months and was paid for six months. He was dismissed as LB&RDD has no budgetary provision for the Chowkidar (caretaker) with the department. Syed Madad Shah, the chairman District Council paid Abdul Manaf 3,000 rupees when he was dismissed by LB&RDD.

The community people decided that they would pay to the caretaker. And Abdul Manaf also agreed that if he is paid Rs. 800 he will take care of the water supply. The Pani Ki Committee and the Islahi committee could not managed to collect money from the people. The religious leaders e.g. the Imam of the Mosque and the Muki of the Jamat Khana were given the duty to collect the tariff at the prayer times. The system worked for one month but failed.

The positive changes by PAR in Pakora

Water for 11 months instead of 4

Physical improvement of the rehabilitation scheme was very important for PAR team in Pakora. The water storage tank was repaired and the tank was connected with the inlet chamber. PAR project was responsible for the cement and other construction materials that are not available in the community. All the local construction materials e.g. sand, stone and labor were to be provided by the community. The committee was supervising the construction work. The work plan was made with the help of the CRT that suit to the community and the seasons were also considered while planning the construction work.

The wall was repaired, the over flow and the feeding pipe were changed and the tank was covered with G.I. sheet. This helped the community to get water for 11 months. In 1997 the pipe between the inlet chamber and the storage tank freeze. This could have been avoided if the water for feeding the storage tank was stopped at night.

A more improved committee

PAR approached the community through the Numberdar and also the team has to take the help of the political leaders. The community wanted to have a coordinating body, which represented the entire community so the entire community selected the male and female members. PAR took this idea of CRT membership to other PAR villages.

The idea was applied in each of the PAR communities Hasis, Hoto and Ghaziabad. Committees have been useful in our village. If PAR can help in making the Pani ki Committee more useful, it

will help the villagers. The villagers during the base line survey told the PAR team. A Community Research Team, consisting of 13 members (9 male and 4 female members) was formed with the help of the whole villagers. One of the criteria for the makeup of the CRT was the representation of all interest groups. The Village organization was limited to only 35 members and all the community was not included in it. Although there are 7 families who still are not cooperating with the CRT members, but the committee members are trying to convince them to be involve in the water supply scheme. From the past these members are not participating in the communal works but we can't stop our development because of them, the shaikh of the Mosque, who is also a strong supporter of the CRT said.

Previously in the village there was a Falahi committee, which managed the village issued, but when the CRT was formed the villagers found this to be more effective then the old committee. The members of the Falahi committee tried to transfer their responsibilities to the CRT members. So the CRT members have to explain them that the purpose of forming the CRT was not to resolve all these other outstanding issues in the community. The community has made several committees such as water and sanitation committee, Natural Resource Committee and Health Committee. During an exchange visit of the male CRT members this idea of forming committee for the village issues was brought back from one of the PAR villages, Ghaziabad.

Mechanisms like these reflect a more communal way of thinking about solving problems in the village. The CRT members the and the CRT supporters(Shah Muhammad Nabi and Zahir Shah the Numberdars, Syed Nabi Shah and syed Aman Alishah the Union Councilors and Mr. Syed Muhammad Shah the member of the District council feel that "Before we were not able to discuss problems and solve our problems. Now we sit together and discuss these things."

Trust building among men and women

One of the major finding was that if PAR takes the CRT and the other community members through the whole process then the community develops its trust in the team which can allow increased participation by women. Pakora people belong to two different sects (Isamili & Suni), and because of the small differences in the religious practices, it was difficult to gather all the village people. The Suni families did not want joint meetings, which include their women. The Sunni men either did not want to sit in meetings with the Ismaili women. PAR team started their work by arranging separate meetings for both men and women. But gradually by visiting the community, PAR team succeeded in building trust among the community and between the PAR team and the commuting. But later on the CRT had joint meetings and the Sunni men sat with the women for the meetings. Now there is always a joint meeting for the CRT members. Pakora has the most active female members of among the four PAR communities. In tradition of the village, Suni women are not allowed to sit in public meetings. The community had so much confidants in PAR that one of the Suni women was allowed to be the member of the CRT. This change in gender relation must be analyzed in relative terms. Women are now making decision through the committee. In the CRT meetings with PAR, women's voice makes you more alert of your position then the criticism from the men's side. So the PAR team as to be fully prepared before going to meet the CRT.

Transparency and record keeping

We did not know how much money was given to the Union Council member on the name of the village, Akeem, the secretary of the CRT says when there was a discussion on the past water supply scheme. PAR has kept a transparent relation with the community. The community was involved in each step of the research phase. They were also participating in the budget planning of the scheme. The CRT also has a clear and transparent relationship with the community. Before making decision, a community level meeting is called to inform the whole community to take their opinion. To make it more transparent, the Secretary of the CRT was taught how to keep meeting records and the money records. Whatever money comes in the community, is recorded and annually presented to the community. A fine system has also been introduced in the community on water usage. Those households who keep their taps open are fined and the female CRT members in their mohallahs check the taps. The secretary of the CRT is very sharp and the most qualified (educated) individual in the village. He is very busy and usually is out of the village. Due to his frequent absences from the village, he was not properly documenting the progress of the CRT. The solution was to have the CRT women document the progress and the decisions. The female CRT members also are responsible for keeping record of the CRT meetings, tariff collection and the fines. Record keeping has helped the committee members in answering the complains of the community, if there is any.

An angry man, becomes CRT president

In the early stage of the research process in Pakora, a town meeting was going near the Jamat Khana, the PAR team notices a man sitting on his roof and looking at the gathering. In the middle of the meeting the man appeared in the gathering and start shouting, what are you doing? You are having this meeting near my house. I am also interested to come but as I am very poor that is why you are ignoring me. I am not informed about the village meeting, why should I? As I am the poorest. Some of the gatherers tried to stop him but the PAR team let him tell his anger to see the reason behind the shouting. Later on the PAR team came to know that he was a retired army man and was very disappointed that he was not informed about the meeting. He ended up attending the meeting and the community selected him as the member of the CRT. He worked as a member for sometimes and was very active in the committee. By seeing his interest and good performance as a member, he was selected as the president for the CRT. Although he has left presidency of the CRT in 1997, but still he is a very important social activist in the community. He has represented his community during the regional exchange visit to the PAR communities in Nepal.

Home work for the CRT

The completion of the water supply scheme did not mean that all of the water-related problems would cease. This was realized by the CRT that they need mechanisms in place to ensure that this scheme will be a lasting one. This is an ongoing process, which requires the committee members to be flexible and to listen to the concerns of all community members in order to a sustainable system.

Some remaining management problems

One problem is that ten households were left without access to the new water supply because there was not enough distribution pipe to cover their mohallah. These families first realized the severity of this problem during the winter months after the scheme was implemented when they found themselves totally cut off from any safe and reliable water supply.

The other problem was that in one of the mohallahs the main water supply pipe is of small dia (1/2 inch) and the branch lines are of bigger dia (1 inch). This creates the pressure problem in the mohallah. This problem has also been left for the CRT to tackle.

The third physical problem with the system was that the inlet chamber was not constructed in the proper place, as there were no other alternatives for the engineers. But the community people think differently. The engineers are wrong, they have designed the scheme improperly. The president of the CRT says this. He thinks that the best solution is that to connect the reservoir tank with the spring which is almost 300 feet far from the tank. The amount of water has also been tested as not enough for the people of the community. But the CRT members have believed that their solution lies in connecting the tank with the spring.

All these physical work has resulted in management problem in the community. The households with out the water connection are not cooperating with the other community members and conflicts arise. The mohallah with the improper dia pipe although gets pipe water but are not ready to pay the tariff (Rs. 50 per year) by saying that they are facing the pressure problem.

In addition to this problem the committee members identified the need for an operation and maintenance fund which could be used to cover additional expenses for repairs. How can a O&M fund be started in this village when people are so poor, and they have very little in terms of money to contribute? The female CRT members are doing a lot in this regard. They have started collecting 5 rupees every month and are depositing this in separate account. We get the money from the women of the house and men are never ready to give money. Women get this money by selling eggs. The female CRT members also use the WO (Women Organization) for the collection of the O & M fund. We are also members in the WO so we talk about the importance of the O&M fund and the importance of keeping their taps off. The women are always ready to pay as they think that five rupees are nothing as compare to the maintenance of the system. Bibi Nargis, the young and enthusiastic CRT member says.

Some short comings

Two short comings were noticed during the PAR process, one was being behind as compare to the other PAR communities and the other was the high expectation of the community form the PAR team. As far as the process of the development work in Pakora is concern, this community has somehow been late. E.g. for the construction work of the water supply they were being late as compare to Hasis which is its neighboring village. They would wait for PAR team to come and push them to start work. This was a little pushy village. The reason for this could be the low literacy rate among men as well as women(in Hasis the literacy rate of men is 80% while the literacy rate for men in Pakora is 10%), the past experience of doing nothing and getting things like the water supply scheme, the Government school etc. easily because of having their men in the political institutions and the last and important reason could be the existing caste system like the Syeds' the common people and the having two different sects, the Sunies and the Ismailies One of the shortcomings of the PAR team in Pakora was rising too many expectations among the community. Don't worry I would write the proposals and give it to the water agencies, one of the PAR team was heard saying who was promising to the community that he would get money for the connection from the spring to the tank(this idea was rejected by the project engineers because of the low yield of water in the spring). This has created difficulties for the new PAR team in the research process in the community.

5.1 Nkouondja in Cameroon: Financial management

Learning by doing

We saw the key actors in the management of Nkouondja water supply system who were developed through the intervention of PAR in this village. These people would not have been known if there were no appreciable things done by themselves which we will be seeing soon.

A village that was met in a situation of a collapsed management system with an almost non functional water supply system, now transformed into a system that wins the confidence of donors and stands as an example is what anybody will like to know about. The changes in management method and good impressions from outsiders were as a result of experiences developed in fund raising in the village, good record keeping, accountable and transparency which lead to improved physical system gradually crippling in.

The people of this village will tell you more than we can write if you make a visit there because you will likely notice things we neglect as a result of our integration into the community. I remember Peter Bury appreciating the confidence in a lady who was presenting what women did on their organisation. This presentation resulted into a strong debate between women and men. A young man of about 30 years old was expressing fear of women knowing much which could lead to divorces in the village and a woman stood up, challenged him saying that they had been devoices before now. At the end this young man said he was just making the women to understand that it will not be easy for them to come and discuss with men. Such a debate is like a training for them.

May be we should now look at some of the things these people have been doing that make them an outstanding example in the area.

Lack Of Financial Control

Before the arrival of PAR project in this village the people had its rules and regulations for the management of the water supply system. The document specifies that each person pays 100 CFA Francs each month, which is equivalent to 17 cents of a US dollar. This contribution was made without keeping any record. No one will of course expect this type of system to exist for long. It collapsed and a new system was tried by the people themselves.

In this system the collector wrote down the names of any contributor on a list which was never signed by anybody. This went on for sometime and other problems propped up. The major complaints were that some people contribute but their names were never written down, the collectors embezzled some of the money, no information was given on the management of the money and the management team could not even estimate what is expected. With all these problems and many others in the behavior of the wmc president, which was not appreciated by the population, the management system was bound to fail.

When we arrived this village it was like God sent as an old women whispered to us when we came out for a break since she could not be in the discussion hall where the men are *"My children you people should really help us out. This men like that are not serious. We contribute money but they do not write it down and after they said we never contributed."*

The people of this village went through the PAR process and are now reaping some fruits. This time full of knowledge and ideas are modifying almost everything from the way to organize themselves to the ability to improve their fund collection and recording. At this stage the method of fund collection was set up in a way to eliminate most of the problems faced earlier.

This time the committee buys receipt booklets and a stamp in the custody of the chief alone. He stamps and signs receipt booklets which are distributed to quarter heads. The quarter heads collect the funds from their respective quarters against a receipt given to the contributor. The money and the stubs of the receipts are submitted to the chief who counts and hand the money to the treasurer. The secretary record down the sum and update his records. This process is on-going in the village now and is expected to be a solution to their funds collection system.

Finances In The Open

No matter how good a fund collection method is established, without proper accountability and transparency the system is doom to failure. The people of Nkouondja know this and practise in their own way as we shall be seeing next.

The secretary of the WMC, Mr. Mama, keeps all records relating to finance. He has developed a system which seems quite convenient to the community. He started by establishing a list of all people eligible for contribution from each quarter. Knowing the levy per person, it was easy for him to estimate what is expected from each quarter. At the same time he keeps the list of contributors and defaulters. During prayer sessions in the mosque where almost the entire village converges on Fridays he reads out the financial report which shows the income, expenditures and balance left. The names of those who have not contributed are equally read.

The chief who is the overall authority in the village uses this method to monitor the participation of various quarters. He counts the stubs of receipts from different quarters and compares to know the level of participation from the various quarters. He reported once about the recalcitrance of Mapoche quarter where the president of VDC lives and asked him the reasons behind such a situation but no clear answer was given.

The women use these receipts to control those who collect water. One person is chosen to monitor each tap. Those whose names were read for having not paid have to show their receipt before collecting water. In this way the funds collection is improved. However, their major obstacle to this control method is the fact that some private connection users give water to these people.

The wmc also uses this system to know their limitation and set up strategies. Here, they estimated the contributions using the levy and number of potential contributors. Since the levy had been made before the list was established, they realized a shortage. The strategy to feel this gap was to apply to donors. This was going to take them time and there was no guarantee. They reflected and sent somebody to Gabon where some of their elites are working. This person returned with 500,000 CFA

Francs which is equivalent to US \$833, more than the amount expected. Their project which was partially financed by Helvetas, a support organization, was quickly accomplished.

No 'Angry' Food

How interesting is it seeing people taking control of their development after capacity building process. The people of Nkouondja decided to construct a new catchment after going through the diagnosis and solution phases of the PAR project. This process and strategy of this project will be our center of discussion with particular attention to more social things that happened.

Through the assistance of CD the village had financial support from Helvetas worth five million CFA Francs which is about US \$ 8330. The village was expected to contribute amounts to 1,200,000 CFA Francs, approximately US \$2000 which is 30% of the project cost, This was discussed with the people and agreed upon.

According to Helvetas approach, a team goes and evaluate a project before a contract is signed with the executing agency which could be any reliable NGO. This team came to Nkouondja and did not show interest in the people giving the impression that the people will have to accept just anything since they are looking for help.

During a subsequent visit to Nkouondja the Helvetas team had a sock. Coincidentally the team came while we were in the village. Our arrival was friendly and exciting with everybody rushing to greet and shake hands as usual. When Helvetas team arrived we could sense an atmosphere of tension. In a combined meeting session the chief took the floor and rejected the behavior of the team from Helvetas during their last visit and questioned the amount Helvetas finally accepted to assist them. He spoke bitterly though in a gentle low voice but any one who knows him will understand how disappointed he was. As he puts it *"We know that we are requesting for help but that does not mean that we will die if you do not help us. When some body gives you food with anger you will never feel like having eaten something. These people from Buea do not bring anything but when they arrived everybody is happy even children and women. It is not because they bring us money but for the love, interest and respect they have for us."*

He went further to express his discontent with the amount finally decided, changing from five million to three million CFA francs. At this junction one of the team members explained that they had problems locating the catchment that day. With all the tiredness they might have behaved nastily to them and begged for excuse. This man went ahead to explain the reasons behind the change in the amount from Helvetas. He said the amount was reduced because Helvetas buys pipes at duty free prices and that the increase was not going to affect community contribution.

The key issue here is not who is right and who is wrong but the extent to which the villagers know now that they have a right to decide on their destiny. *"Things seems to have changed in this village"* a Helvetas team member said *"the people talking so much with confidence in themselves."*

5.2 Hasis in Pakistan: A traditional system of fining

Background

The International Water and Sanitation Center, IRC the Netherlands initiated a Participatory Action Research Project on "The Role of Communities in the Management of Rural Water Supplies" in 24 communities in 6 countries with financial assistance from DGIS (Ministry of Development and co-operation, the Netherlands). For implementation IRC selected partner institutions in each country: Columbia, Guatemala, Cameroon, Kenya, Nepal and Pakistan. The project team in Pakistan is carrying out this research with 4 communities Ghaziabad, Hoto, Pakora and Hasis in the northern areas of Pakistan. Community Research Teams (CRT) have been formed in these communities to take care of water supply management issues and to participate in the PAR activities.

Introduction

Going through the bumpy road to Ishkoman Valley is a hazardous job. Whenever PAR team is late in visiting the community, the CRT president always asks "Sahiba ees thafa hap dar say hayay" meaning that you have been late this time, so PAR team has to be there from time to time. Hasis is a beautiful hamlet near big mountains with the glacier water running in the middle of the village. This community is very famous for its fruit, the thick trees hide the houses it looks like a jungle from far behind, but if you enter the village you can see the big rocks in the gardens and in the fields. When the spring comes one can see women busy in collecting the small stones from the fields.

Hasis, a sloppy village in the remote valley of Punyal in Ghizer District was chosen as one of the PAR research communities. Hasis lies in the north-west of Gilgit town. It is about 6 km away from tehsil headquarters of Ishkoman valley. Hasis has two parts, Hasis Bala (upper) and Hasis Paeen (lower). The upper part has a total household of 115 with individuals. Two local organizations existed in the village before PAR started its work. The Aga Khan Rural Support Programme initiated Village Organizations (VO) and Women Organizations (WO) in the community. AKRSP initiates income-generating activities both for men and women.

PAR team together with the community started a Participatory Action Research project in the village to improve the existing water supply scheme in 1995. This case study consists of the facts about the community water supply before the PAR interventions, during the PAR process and the community moving forward and trying to manage their water and other issues on the bases of what they have learnt from the PAR process.

The traditional water supplies system

Nallah (the glacier water which come through Channels) water was the only source for drinking as well as for irrigation in the community. With the passage of time some of the families settled near the Ishkoman River and that became the source of water for them. Small streams and channels were built through the middle of the village to convey the glacier water to the village. These sources were accessible during summer and spring but in autumn and winter because of the decrease in the yield of the glacier water and the freezing problem, water goes out of the easy reach for women in winter. This makes the women of Hasis to walk 2 k. m. on an average round trip to fetch a bucket of water. The school going girls also have to lend a hand in fetching water before and after school time. Water collection became a difficult and time-consuming task for women when families settled

far away from the water sources. Therefore, the community members individually dug out water pits in their houses in order to store water in winter. These water pits were filled after 4 days through the stream and after filling the water pits the supply of water used to be cut off from the source located far away from the settlement area to prevent any damage resulting from freezing of the ice from the stream water. These water pits were highly contaminated as the water drawing from the Gulko (water pit) and storage practices in the house were adequate for the potable needs. The other reason for its contamination was its sub-standard super structure i.e. with out doors, poor overflow system and improper roofing etc.

Thinking about the improved water supply system

Two major problems associated with drinking water, turbidity and the time required for fetching water made the community realize men at the community level and women at the household level that there should be a permanent solution. So in 1980, the community through the Union Council member and the Numberdar (the traditional leader) approached LB&RDD for a water supply scheme. As a result Hasis Bala got the scheme, Hasis Paen could not be included in the scheme as the water tank was to be built in the upper part and the people from the lower part said that the water pipes will be damaged every year as it has to pass the Nallah between the upper and lower part of Hasis. Therefore the people of lower part of Hasis decided not to get involved in the scheme because they thought that they could not be able to maintain the line because of their limited resources, which had to pass through the Nallah, due to the floods in the nallah it will be a permanent burden for them.

Organized community

Humaray kohi tanzeem nahi thah meaning that there was not any formal organization in the village. This was what the Numberdar (traditional leader) told us. The community did not had any committee or organization but the Numberdar used to call at least two meetings of the whole village in a year. In these meetings, various issues were discussed and decisions were made. This was the platform from where the issue of water came up and the need for an improved water supply system was raised.

Participation in the planning

A committee was selected, keeping in view the interest of the members they had shown for the undertaking of the communal work in the past. The community identified the source and the site for the tank. The design and the survey for the water supply scheme was undertaken by LB&RDD but the project committee was just consulted.

Relationship between the agency and the people

The community people were totally ignorant about the formal terms and conditions of LB&RDD, so they did not know what role both parties were going to play. When LB&RDD asked about the site of the tank we showed them the CRT members informed the PAR team. The LB&RDD staff guided the committee to identify the site for the tank and the water source and the layout for the pipes. The quality and the quantity of the water at the source was measured through the location of the water source as it was above the residential area and it was thought that there will be lower risk of contamination due to the less household activities. The construction work was started in the winter so they community faced a lot of problem in the digging of the pipelines. Hum nay makai kay

bossay kuhdahi walay jagay may jalaiy meaning that we had to burn maize stakes in the digging places to de-freeze it. By saying this the CRT members were complaining that the construction work was not carried out in the right season i.e. the summer or spring.

Non-sustainability of the community organization

Soon after the completion of the physical improvement of the water supply scheme by the LB&RDD, the committee structure broke down. The community handed over the responsibility of the maintenance and operation of the system to the village management body that consisted of the Numberdar and two Zatoons (village watchmen). The Zatoons were working under the supervision of the village Numberdar. The community also appointed a caretaker who was also supposed to work under the direct supervision of the Numberdar. The caretaker was selected in the annual meeting every year and the selection was based on the lowest bid for remuneration a community member wanted to be paid or demanded for. The roles the caretaker that he had to carry out was, to clean the tank twice in winter and every week in summer, feed the tank with water regularly, to repair minor breakdowns to the tank, pipes and taps, and to inform the Numberdar about the major breakdowns. The Numberdars duty was to gather the community members for the repairing of major repairing through the Zatoons.

PAR in the community

When the PAR team went to the community it was the Numberdar who helped them in approaching the community. A CRT (Community Research Team) consisting of 15 members, 9 male members and 6 female members was formed in Hasis with the help of the whole community. Priority was given to notables, influential and educated people. The membership was based on clan (Rehmat Khan, Judary, Khan Bakay, Fathay, Porary, Owshonay and Toyaway) membership. The role of the CRT was clarified as: to take care of the water supply scheme; to bring water related issues for the discussion at the community level; and to gain experiences in action research to help the community in development in future. The CRT is more powerful because the traditional organization is supporting the CRT. This has lead to a very nice coordination with the joint management and updated structure for the managing tasks e.g. paying the caretaker etc. The CRT plays a major role in the village. The significant factor is that the CRT selection was based on clan so now the whole community is bound to support committee. The CRT follows traditional structure and rules (Numberdar, zatoon). The whole community gathers to decide future representatives and future plans.

The Secretary of the CRT Hasis in a Workshop was talking about the record keeping. Some changes were made regarding the membership of female CRT in Hasis during a workshop held for both participants' from Hasis and Pakora (another PAR village). The CRT member of Hasis noticed that the Hasis Female CRT were all aged and there was a low participation from the female side of Hasis and the Pakora women CRT was with young and educated members and they were very active in participating in the workshop. The Hasis CRTs replaced one of the uneducated member with two educated women.

Women voicing for water

Due to the inaccessibility of drinking water the women were greatly suffering from the burden of collecting water. It is traditionally their responsibility to collect water. Once the PAR came the women became very enthusiastic and active. They had previously argued with the men over the

need to improve the water supply situation. These women were already aware of their problems and were voicing this at the household level (as mentioned above), but they needed to press the men at the community level. The women had assumed their roles as water managers but had no role in trying to change it. Now these women make choices. The experiences have proved a kind of cohesive empowerment. Once in a meeting Ayitee (CRT female member) was heard saying, Maray nulka may hawah kay ilawa kuch nahi hata (in my tap there is nothing but the sound of air). She is the CRT member and was complaining to the other members about the absence of water in her tap. She was arguing with them and the male CRT members were listening to her. This was possible because PAR project was offering the right incentives and making sure that they are participating in the process. The community Women were also monitoring (one was the CRT member) the Project e.g. in one case low water pressure was observed in the taps. It was assumed that there might be some leakage. The women went to check the distribution line, found the leakage and proceeded to inform the CRT.

Ownership and confidence

One of the changes, which PAR developed in the members of the CRT, was ownership for the pipe and the construction materials. For example in a meeting among PAR team and the CRT members a place was identified for the dumping of the water pipes, but when the WASEP engineers dropped the pipes at the Numberdar's house, the CRT president later refused to receive the pipes. The CRT said they could not accept the responsibility of these pipes because these were stored to the wrong place and could potentially be lost and stolen. Afterwards the CRT required that the engineers never do this again. The engineers have done a wrong thing, the pipes mean a lot to the community and if some one had stolen it who would have been responsible, Shukrat Wali the president of the CRT said this in anger. The CRT took the ownership of the materials. They expected to be treated in a certain way and expected all the outsiders to conform to certain norms.

An Improved Zatoon: fine collector

Zatoon, an old term refers to the person who collects fines within the community and responsible to inform the people for a communal work by visiting each house in the community. In return he gets a fixed amount of grain or cash from the households. A traditional fine collection system exists in the community. If any one from the community does not participate in the communal work e.g. repairing of the irrigation channels and repairing of paths etc. the Numberdar sends the Zatoon to collect fine. The CRT followed this way of collecting fines from those who violate the management rules. The Zatoon receives a stipend from CRT for imposing this job. If any household refuses to pay the fines, the CRT has the authority to seize axes, a plough or a cooking container. If this is not possible then the CRT can disconnect the supply of water, which is thought to be a shameful thing to happen to someone. Till now there has not been any of such case.

Utilization of fines

The CRT collects Rs.100 from the community people if they did not take part in repairing the pipelines and taps. And the fines for the CRT member are Rs. 150 for not mending the broken parts of their taps. Twenty rupees are given to the Zatoon as a stipend and the rest of the money goes to the operation and maintaining fund. In 1996, 25 households were fined including the Numberdar and one of the CRT members. The CRT has the overall duty of utilizing the funds. The funds were being used for entertaining the guests who visit the village and also for the expenses of the CRT

members when they have to visit outside the village for water work. Recently the Committee has decided to put the money in the bank and with those money which has been collected from those households who had not participated in the digging of the pipelines. And this will also go to the maintenance fund. Fines have also imposed on the CRT members when they do not attend the committee meetings.

The community complains are heard

Whenever the Zatoon went to collect the fines, he has to hear complaints from the people. So it was decided that the president and the secretary of the CRT should be informed about any complaints by visiting the households. However, sometimes it was difficult to contact the president and the secretary and people started complaining to the CRT members. The CRT members decided to receive complaints.

Several interest groups (men women) are now complaining if there is anything wrong with the tap water. The most vocal group is the women. When a woman is not getting enough water and hears the sound of air form the tap, she goes to the house of the nearest CRT member and informs him about the problem. The community also checks the distribution line if there is any abnormality in the supply of the water. The identified problem is brought into the notice of the CRT members. A routine visit once a week is paid to check for water leakage and to listen to complains from the users. This makes the community people conscious about the condition of the water supply system and the maintenance has become the priority of the community members.

The committee using what they have learnt from PAR

The people of Hasis are trying to get water supply connection for those households who have not yet got the line. They have participated in the construction work and its is now our responsibility to provide them with tap water, Majid, one of the CRT member encounters. The whole Hasis Bala has participated in the construction of the water supply scheme so the committee thinks bound themselves to solve the water problem of the 40 households. In this regard the community thinks that PAR has left an incomplete construction work. The Committee members were also complaining that in the beginning the PAR team carried out the survey of the whole household and in this way created an expectations among the whole community members that they would get the water pipelines.

The CRT members have also gone to the other agencies e.g. the LB&RDD, WASEP, AKRSP and NAPWD. This gave an exposure to the committee members and made them aware of the limitations and procedure of institutions. The community has already got a pipeline for the feeding source to the inlet tank from WASEP. The committee members have visited WASEP office recently with a proposal that was their third proposal for the institution.

Development of successful committees

After thinking in-depth about water problems and finding solution to those problems, the committee members have been able to solve other problems existing in the village e.g. a lot of expenses in the marriage, the cutting of trees to be used for fuel in the pastures, the shooting of wild animals amongst others. The CRT has formed different committees for different issues e.g. Shadi ki Committee (Marriage Committee): this committee is supposed to control the overall expenses one

spends on a marriage. The community was facing the problem of a lot of expenses on marriage; a competition was raised with those who can afford these expenses and with those who could not afford. The poor villagers have to take loans from banks so that they can spend on the wedding of their children. By forming the Marriage Committee the CRT has been able to tackle the problem. The shooting of the wild life has been banned up through the Wild Life Committee.

Fuel wood was not a big problem in the village 5 to 10 years ago on the mountains around Hasis, but the community has now realized that the fuel is decreasing rapidly. So the CRT has formed another committee called Jungalat ki Committee (Forest Committee). This committee has formulated a role according to that each household is allowed to bring a fixed amount of wood from the pasture for a year. A mineral committee has also been set up so that all the villagers has equal chance of going to the mountains and collecting minerals. Twelve committees have been formed and each committee works under a supreme body and has to report to the CRT.

5.3 The story of Barre Chiquito in Guatemala: Dealing with water fees

The community of Barre Chiquito has an interesting experience in handling their water project. It shows the ability of the women to direct the water committee, as well as to manage other community projects.

Barre Chiquito is a small community where, for lack of land to cultivate, the men leave the community to work almost all year in the plantations. The women, therefore, have to assume the responsibility of directing and doing the work of the community.

The procurement, construction and administration of the water project provided the space for the women to demonstrate their abilities, their strength, and their motivation, as did it offer the opportunity to appreciate their participation to bring about a project of vital importance for all the families.

We present this experience to share the work the community did to run their water project, with the help of the Participatory Action Research project (PAR) for the improvement of community management in the supply of water.

Principal characteristics of the Barre Chiquito community

The hamlet of Barre Chiquito¹ covers four square kilometers. It belongs to the village of La Barranca, part of the municipality of San Cristóbal Chucho in the department of San Marcos. It is 22 kilometers from San Marcos and 15 kilometers from San Cristóbal Chucho.

Upon observing this community, we see a small town with 29 houses and 250 people. Most of the houses are concentrated where the two roads entering the hamlet join.

Close to the ravine, only four families have ten *cuerdas*² of property where they cultivate coffee, *maxan*³, *pacaya*⁴ and tomato. The rest of the families only have a *cuerda* or a *cuerda* and a half close to their houses. Around their houses, they grow coffee plants. They also have *pacaya*, tomato, *güisquil*⁵, avocado and lime, which they sell in small quantities.

Tortillas are, of course, the principal component of any meal. For this reason, some families rent land in far away places to plant corn.

What little corn is planted does not satisfy the food needs. This situation obligates the men to go off to work on the plantations in the southern lowlands for the planting, harvesting and cleaning of coffee. From November through January, the children do not go to school and the whole family goes to the plantation.

¹ It is said that the community was named "*Barre*" because of the high clay (*barro*) content of the soil in those parts.

² A *cuerda* measures 25 meters X 25 meters (625 m²); it is roughly equivalent to .0625 hectares.

³ *Maxan* is a leaf used to wrap corn or rice *tamales*.

⁴ *Pacaya* is a bitter, string-like flower that is cooked in an egg batter. Some say it is medicinal for the kidneys.

⁵ *Güisquil* is a squash-like vegetable.

Management of the water project in the hands of the Barrel Chiquito women

Building the water project

Before the construction of the water project, water was hauled to the houses of Barrel Chiquito from waterfalls or from small springs. It was then used for food preparation, drinking and bathing the young children, as well as for the family gardens close to the house and for the domestic animals – horses, cows, chickens and pigs. To wash the clothes, one had to go to the river. The older children, adolescents and adults would go to the river to bathe, or else use the waterfalls.

During the rainy season, the residents of Barrel Chiquito took advantage of rain water and stored it in barrels, buckets or jugs, thereby reducing the need to haul water.

The hauling of water was done by women and children. It was difficult and took a great deal of time. They would walk up to an hour and a half back and forth to bring back one jug or bucket per person. One had to make four trips to get the family's water for the day.

The families of Barrel had suffered many years on account of not having water in the house. In 1988, a group of six people from Belén⁶, thinking about constructing a water project in the near future, proposed to the community the purchase of a spring.

The people accepted the idea, as doña Eugenia Velásquez explained:

It's about time we do something to not go on hauling water! Going to get water is difficult for us – we're tired of it. What's more, the water serves us everyday. I agree with helping to buy the spring; later, we'll see how we will go about building the water project.

Thanks to the motivation of doña Eugenia, the others said that they agreed with helping to buy the spring and, afterward, to build the water project. That same year, the community of Barrel bought a spring close by, paying the amount of Q 2800.

So that the idea and the motivation the people showed for constructing the water project would not be lost, the same group of people that pushed for the purchase of the spring began taking steps with the municipality of San Cristóbal Chucho, San Marcos. The group from Barrel explained to the municipality the community's need for the water project and solicited financial aid to build it. At the end of a year, however, they had not gotten a firm answer.

As there was need to take steps with other institutions, a community assembly was held in 1989 and a committee was elected that would follow up on the procurement of water. In the election, the persons forming the group that motivated the purchase of the spring were taken into account because the people saw their ability to deal with institutions and represent the community.

⁶ Belén is another community involved in the PAR project.

This committee was formed by five women and one man: President, Eugenia Velásquez; Secretary, Teodora Fuentes; Treasurer, Francisco Cabrera; Committee Member I, Martina Orozco; Committee Member II, Jacinta Orozco; Committee Member III, Romelia Dionicio.

The departmental government of San Marcos legalized the committee, which began to fulfill its functions and look for other institutions in the department of San Marcos to solicit financial support for the construction of the water project. Eventually, they arrived at the institution *Agua del Pueblo*⁷ (ADP), which after receiving the committee's application, indicated the possibility of supporting the Barrel community in the construction of its water system.

Agua del Pueblo made its first visit that same year (1989) to get to know the Barrel community and propose its form of working to everyone that lived in the community. The people indicated that they agreed with the work conditions that ADP proposed.

These conditions included: the community had to contribute manpower for transporting materials, ditch-digging and building of the structures that the project required, as well as storing of materials brought into the community. In addition, they had to make an initial economic contribution of 5% of the value of the project investment. Also, they had to contribute local materials such as rocks and accept the commitment of paying a loan that the institution made to finance the construction of the water system.

The work began in 1990 with the project feasibility studies. These studies included the topographic survey, project design, calculation of budgets for materials, parts, manpower and technical services. This helped the community to know how much the water system would cost in total.

Afterward, the technicians from ADP explained to the committee the results of the studies. They presented the general budget, the contribution the community had to make (both in local materials and manpower), and, most important, the form of financing the system's construction.

The president of the committee, doña Eugenia Velásquez, explains:

The technicians of *Agua del Pueblo* explained to us that the institution can help us give financing for the construction of the project, part as a donation and part as a loan. We can pay off the loan in six years, but at the start of the construction, we have to give a down payment.

They obtained a loan of Q 15,600 that was used to cover 25% of the total cost of the system's construction. This loan was to be paid back in six years. Another contribution that the community gave was its work and local materials. The rest that was needed to build the project was gotten through donations.

The community and ADP agreed on the construction of the water system. An agreement was signed between the committee (serving as the representative of the Barrel community) and ADP in order to formalize and guarantee the responsibility of the beneficiaries to pay back the loan.

⁷ This non-governmental institution, with its headquarters in Quetzaltenango, works in potable water projects attending rural communities.

Following this, the committee made the agreements with the owners of the property through which the project's general conduction lines would pass in order to legalize the right-of-way permits.

In May of 1991, the construction of the water project began. The goal was to build the project in seven months. The committee organized work commissions with the beneficiaries. It supervised and kept track of the completion of assigned tasks and the beneficiaries' work shifts, both in ditch-digging and hauling of materials.

In the building of the project, few men were observed working. As doña Calixta noted, "our husbands are working on the plantations in the southern lowlands; that's why we have to do this work." The committee organized the women to carry the local and non-local materials, such as rocks, gravel and plastic tubing. Doña Jacinta, a woman that supported the committee in the construction of the water project, testified :

The truth is that the local material that we needed for the construction of our water project didn't exist. The men weren't in the community. They go off to the plantations to work. So, the women took advantage of the fact that they were filling the potholes on the highway with big rocks. We would hide and when the truck went away, we'd bring back the rocks to the community.

We women could do the work when the men were not around. They just sent the money to pay the hired hands. The heaviest work was done by the hired hands, such as the ditch-digging [and] the hauling of cement, iron tubes and block. We women were also given training for the handling of the water-cocks.

The children also helped in the work of building the project. For example, the girls, besides preparing the food for the family, helped to take care of their siblings. They hauled water that was needed in the house. They did the food shopping in stores that were in the center of the village that was a kilometer away from the community.

Table 1: Participation of Beneficiaries in the Construction of the Barrel Chiquito Water System

Aspects	Men	Women	Committee	Girls	Boys
Economic contribution	X				
Hauling of local materials and ditch-digging	X	X	X	X	X
Food preparation		X	X	X	
Training in administration, operation and maintenance		X	X		

Source: Data provided by the women belonging to the committee in the field investigation.

The committee held meetings with the community, wherein they informed the beneficiaries of the advances and problems that were occurring in the construction of the water system.

Health technicians and social promoters from ADP arrived and held training sessions with the committee on the roles they were to play in the project construction. The beneficiaries participated in workshops on health education and the appropriate use of water and the latrine.

In November of 1991, the water and latrine project was inaugurated. The work of the committee had an impact on the neighboring communities since it was directed by women. These communities participated in the inauguration of the water project, declaring their admiration for the committee and bestowing upon them flower arrangements, fruit, regional alcoholic beverages and diplomas.

Managing the operation of the water project

After finishing the construction of the water system, the committee decided to formalize their legal status with the departmental government of San Marcos as the "Pro-Improvement Committee" in order to do community development projects. Regarding this, doña Calixta, a committee member, assured: "that does not mean that we're no longer going to see to the water. We still believe that what happens with the water project is still our responsibility."

This same committee continued with administrating the operation of the water system. It was the women who directed the committee's work. They formed groups of beneficiaries to clean the distribution tank, and they later kept track of whether it was done or not. Some committee members made trips to San Marcos to buy cleaning materials such as brooms, bleach and soap. They also bought oil to lubricate the padlocks on the lids of the valve control boxes.

The treasurer collected the fees and, with the help of the president, kept track of them as well as the beneficiaries' ADP loan payments. They had a plain notebook with a list of all the beneficiaries and there they wrote down the amount of money each one gave. When the beneficiaries paid, they were given a receipt so that there would not be distrust regarding the collection of money. Also in this notebook, the treasurer wrote down the expenses made in the water project for the purchase of cleaning materials and parts that had to be replaced.

Every six months, the committee would visit the houses of the beneficiaries to monitor the use of the water and latrines. Doña Teodora recounts these visits:

When people found out that the committee was going to come, they'd get worried and clean all around their cisterns so as not to leave signs of water being spilled about. But we knew from what the neighbors told us that the water was spilled. They also sweep the latrine so that it's clean when we make the visit.

For the maintenance of the water system, the water engineer, with the help of one or two members of the committee, did the inspections of all the elements of the system: they would look at the catchment, go over the entire conduction line, check out the stop-cock, as well as the air and cleaning valves. Unfortunately, this work was done only once a year. The water engineer also did the repairs for the taps in the houses and fixed breakdowns in the system when there were leaks.

The committee, because of being Pro-Improvement, had to attend to other community needs such as the procurement of a school, teachers, electricity and stoves. These responsibilities took up the time of the committee and it ended up neglecting the adequate administration of the water system.

Don Francisco, treasurer, lamented this situation:

We don't have any time left to collect the fee from everybody. It's hard for us to hold assemblies to keep the community up on what's happening in the water project. We had planned to check over and clean everything in the project every three months, but with the work we have to do with the electricity project, now we only do it every year. We haven't gone to give an accounting to the government, nor have we been punctual with paying back the loan that we have with *Agua del Pueblo*.

What little money the committee collected was not enough to allow them to buy the parts that wore out from use, nor did it cover the purchase of cleaning materials. On occasion, the fee money was used for the committee's expenses when it went to San Marcos to take care of business with the other projects.

In spite of having managed to bring electric power to the community; to purchase land for a school; and to build 35 stoves, the committee recognized the need for close administration of the water project. They figure that it would be better to form special commissions for each of the projects underway in the community.

A school commission made up of parents came about, as did a group of ladies, supported by their husbands, to attend to the stove project. (The electricity project, meanwhile, did not require specific attention by the community.) As a result, the committee took on greater responsibility for water project matters. New steps were taken to attend to the waste water that ran out of the houses, as this was one aspect of sanitation that had not received attention.

Usefulness of the fee in managing the water project

The fee was an economic contribution that the beneficiaries give for their water service. The committee used these funds for the purchase of cleaning materials, replacement of parts and repairs.

At the start of project construction in 1991, the committee, with the help of ADP, determined a fee of Q 0.25 per month for each beneficiary, which added up to Q 3.00 per year. According to the ADP technician, "the fee was very low":

It is determined this way because the people from Barrel have limited economic resources. Besides, they have to pay off the loan to *Agua del Pueblo*. Each year, they have to pay Q 87 per beneficiary. For a total of six months, that's Q 522 each.

The fee was quite low – only Q 87 was collected per year. Very little was accomplished with this amount. It allowed the committee to repair small problems that presented themselves in the water project, buy some cleaning materials and pay the water engineer.

Before collecting the fee, the president and treasurer would send out reminders about the payment due date, and afterward, the beneficiaries arrived to the president's house to make the payment.

Application of regulations to control the water project

At the start of the construction of the water project, ADP left internal regulations with the community to control the project's operation. In practice, the committee did not apply these regulations.

Doña Eugenia, committee president, explained the situation:

The regulations got lost. We don't know who has them. We don't use them because we don't really know what they say. *Agua del Pueblo* just left us the regulations, but we didn't talk about it with them.

Nevertheless, the committee used its own methods to regulate water use. It was the beneficiaries themselves who kept track of one another. They took charge of letting the community know if someone was making poor use of the water.

Because of being a small community, there was greater ease of communication between the committee and beneficiaries. For that reason, they did not believe there was much need for regulations written out of paper. Besides, the project did not give rise to many problems since there was sufficient water.

Working to improve the community's ability to manage its water project

The PAR project and its contribution

With the idea of supporting the work of the community, three investigators from the PAR team presented to the residents the Participatory Action Research project for the improvement of the community's capacity for water management. The interest of the PAR project was to support the work done by women in the management of water.

We presented the PAR project and its goal: sharing work to improve the ability of the community and the committee to adequately manage the water system.

Once the PAR presentation was concluded, doña Jacinta Orozco commented:

We are familiar with the work that is done in the institution where you work. Our water project is working fine. The problems that have been occurring are the result of the strong rains, but we know how to fix that. With the new project that you're bringing us, [well,] it's good because we keep in contact with the institution [*sic*]. We have other projects planned; maybe with what we learn with you, we'll manage to do them.

Don Armando Cabrera declared:

Since the construction of the water project, we haven't had a visit from the institutions. Now that you all are coming with a new project, we accept it, because we are delighted to have people from institutions in the community. We feel important with your presence in our community.

With that, PAR was initiated. We posed to the community that it was necessary to make a work program and form a group of people to do a study of the water and sanitation situation in the community.

The attitude of the people was very positive. The team was made up of six people – four women and two men – and was trained in the techniques for the assessment of water and sanitation. Following this, guidelines were made for the investigation.

During the water assessment, we used the technique of mapping with drawings, wherein a sketch was made of the community. People drew the houses and roads, as well as the site of the spring, the distribution tank and conduction line of the water project.

To get familiarized with the state of the latrines, we took a walk with the committee members and beneficiaries, observing how the latrine was used and if it was clean or not. Afterward, the group met again and talked about what it saw in order to look at what problems were found and look for solutions to improve latrine use.

After making the report of everything that was seen regarding water supply and sanitation, the problems discovered were presented to all the beneficiaries:

- The fee was too low and so did not cover administration and maintenance expenses
- The committee neglected the water project because of attending to other community projects
- There were no tools for project maintenance
- It was not known how to make extensions for new connections
- Waste water ran out of the houses and down the community's roads
- The severe rainy season had swept away tubing

The beneficiaries and the committee talked among themselves and they decided that the most urgent problem that had to be solved was the price of the fee, and after that, the training of the committee and water engineer, both to familiarize them with their functions and how to make service extensions.

In the same assembly, the committee decided to increase the price of the fee from Q 3 to Q 6. After one year, the committee realized once again that this increase did not cover the project's administration and maintenance costs.

Subsequently, the PAR team supported the committee in making a list of activities that had to be done in handling the water system. The committee was now required to give maintenance to the project every three months and to maintain the necessary resources for administration.

The water engineer and committee were trained in making extensions of water service and a map was made of the current number of serviced houses. Meanwhile, the committee was trained in administration and in keeping track of the financial resources collected through the fees. Also, the roles of the water engineer and committee members were stipulated.

With this knowledge, the committee observed:

Now that we know how to make the extensions, we're going to tell people that there is enough water, and more taps can be sold so that they won't be opposed. Also, we have to see to it that another water engineer gets trained, and if he resigns, have him teach the one who is going to stay on.

Doña Eugenia, the president of the committee, adds: "I think that what we have to make is a document that can guide those of us in the committee to follow come through on what we are deciding." They posed the idea of making regulations to improve the control of all the matters that have to do with the water system.

Why was the fee changed?

With the backing of the PAR team, the committee discussed activities necessary to maintaining the operation of the water system in a good state. They recognized that the money collected with the fee was not sufficient to cover administration and maintenance costs, which included:

- Purchase of cleaning materials
- Salary of the water engineer
- Committee trips to San Marcos to give an accounting of income and outgo to the departmental government, as well as trips to Quetzaltenango for loan payments
- Paperwork, photocopies and communication
- Office supplies (file cabinet, stapler, hole punch)

A cost was assigned to all these activities, which added up to Q 420 per year. In 1997 the committee posed this situation to an assembly of beneficiaries, making them see the necessity of increasing the fee. This assembly was held in December, as all the families were in the community and, moreover, because they had money from their work on the plantations and from their own coffee harvest.

The first reaction of the beneficiaries was rejection because only one year previous, the first increase had been made. Nevertheless, the committee explained and justified the need for the increase, noting that on several occasions the committee members had used their own money for managing the water project. In this way, they agreed to increase the fee to Q 15 per year for each beneficiary.

Why were new regulations made?

The committee thought that it was important to have regulations that would help them make decisions and guide the administration of the project.

Different agreements were made in the training sessions: functions of the committee and the water engineer; water uses; criteria for service extension; and fees. Faced with these developments, the committee saw the need to write them up in a document. As the members pointed out:

Words are carried off by the wind – it's better to write it down so it are respected by the beneficiaries and so that other people can use them when there is a change in the committee . . . Also, it is necessary to write down how often the committee should be changed, because we've been here for more than eight years.

At that time the committee members were more conscious of the importance of the regulations. There were beneficiaries that did not see it as being so necessary because they had not experienced serious problems and had water all day. Meanwhile, those living on higher ground had gone without water during the hours of peak consumption (9 AM to 1 PM).

The principal reasons for making new regulations was that the previous ones were not well understood and, on top of that, they got lost. The committee simply did not have a document for the agreements that guaranteed good administration of the project.

To make new regulations, the committee members, water engineer and three beneficiaries met, with the support of the PAR team. First, a questionnaire was put together with three themes: a) rights and obligations of the beneficiaries, b) functions of the committee, and c) functions of the water engineer.

The first theme had to do with sanctions and prohibitions of the beneficiaries related to the following:

- size of the cisterns (*pilas*)
- recommended uses of water
- use and maintenance of latrines
- workshifts for project maintenance and repair
- fee payment
- contributions in case of emergency

The second theme dealt with the functions or roles the committee ought to play within the water project, as well as its tenure.

The third theme treated with the functions, obligations and sanctions of the water engineer.

Once the questionnaire with the three themes was discussed, the PAR team proceeded to write out the regulations in accordance with the answers and suggestions the participants made.

The first draft of the regulations was presented in a committee meeting, its contents being discussed and clarified; other aspects that had not been considered in the questionnaire were also incorporated. After making the modifications to the document, the committee organized an assembly to present the regulations to the beneficiaries.

The contribution of the women in managing the project

The participation of women played an important role in the procurement, construction and administration of the water system.

In the procurement process, it was the women who took the initiative to buy the spring and get the paperwork going to get financing for the construction of the system. When the committee organized, there were four women and one man.

During the system's construction, they directed the organization of the community for the ditch-digging and hauling of materials. They also represented the community before ADP.

In the administration of the project, they worked together with the water engineer and immediately attended to the technical problems that affected the water system. In the entire time the system was up

and running, the beneficiaries were left without water only one week. The fact of being women, who had a stronger relationship with the water and who knew the consequences suffered if it was not to be had, made them keep firm control of the use of water by the beneficiaries.

The departure of the husbands in order to work outside the community gave the women a space in which to make decisions to maintain the water system. It also allowed them to get involved in other community development projects, something which guaranteed wider participation in the future.

Decision making in the community as a determining factor for community management of the water supply system

Decision making in the Barrel community centered on the Pro-Improvement Committee, with the support of the auxiliary mayor. This committee was the only one that existed in the community. Beginning with the experience of building the water system, decision making occurred on two levels – the committee and the community.

On the committee level, the members would meet to determine and decide upon the tasks that each member would do, such as establishing and maintaining contact with institutions in the department and elsewhere, as well as writing and submitting applications.

On the community level, the decisions made were those that related to the interests of all the beneficiaries such as, for example, when an economic contribution was required from all those involved in the water system, or when manpower was needed.

The committee involved the community in decision making through participation in communal assembly, where results of completed tasks, problems, needs and solutions were posed. The response of the community members was to discuss and analyze the proposals and contribute other ideas to make a final decision.

In most of the assemblies, the community members accepted without greater discussion the proposal of the committee. The community's decision to do this was considered to be a vote of confidence for the committee. To date, all the proposals the committees has put forth have worked.

Currently, the important decisions for the future continue being made together – the committee, the auxiliary mayor and the community – a system that has not varied much since the construction of the water supply system.

Conclusions

1. The women demonstrated ability for the management and administration of community projects, as was the case with the directors that made the water project. The fact of having more of a direct relation with water use established active participation to maintain the adequate operation of water service in the communities.
2. The fact that the Barrel Chiquito community was small facilitated decision making among everyone in the community, which was under the direction of a single committee responsible

for community projects. Nevertheless, specific organization was necessary to attend to each of the projects.

3. The local ability that the Barrel community had is an important resource for water management, and something which was strengthened and developed with the support that the PAR methodology. This methodology has contributed to creating greater responsibility and direction in the community in decision making and administration of their water supply system.

5.4 Lele community in Nepal: Trying out different water tariff collection systems

There is a proverb in Nepali "*Batti Muni Adhero*"
(Darkness under the light)

Lele at a glance

Lele ward No. 4 Mahadev Khola Village is one hour drive from the capital. In the area there are the famous ponds Saraswati Kunda (pond of the Goddess of Learning) and Gyana Kunda (pond of knowledge). Every year on Shrepanchami (in January and February), a festival takes place in which people from Kathmandu and surroundings attend to worship the Goddess. The roads are unpaved, but Mahadev Khola Village is surrounded by green forest where you can see pine trees and green bushes from far away. If you enter the village, a stone quarry can be seen in southern part of the hills, and Mahadev Stream down below the hills. Many spring sources join Mahadev Stream as if the forest and hills are weeping on their destruction. Men are excavating stones from cliffs and women and girls are crushing aggregates, which gives a mixed scene of adventure and sentiments.

White and red colored tatched roofs look very attractive for anyone who passes through the village. Houses peeping through Lapsi and Kaphal trees are Tamangs and Chhetris. A separate drinking water tap for Sarki families indicates that there is still the caste system deeply rooted in the village.

Since one year there is a new primary school building without students, which gives the impression that people of Lele are unaware of education. However, the existence of a health post within the village means that minimum health services are more accessible to them in comparison to other rural villages of Nepal.

Religion

There are Hindus and Buddhists in Lele. The main festivals Dashain and Tihar used to celebrate by both religions, and it is interesting to observe that they are celebrating the same festival in their own way which included characteristics such as eating, drinking, exchanging gifts and food, worshipping the Goddess of Power, and getting blessings from elders. This can be an example for other people in the world who have been fighting because of their religion and race.

In Lele there exists a very strong social cohesion within the ethnic groups. People help each other during various ceremonies such as Chhewar (hair cutting ceremony) Ghewa (mourning) and marriage by providing grain, physical works and even money if needed. Parma (exchange of labour) and Dewali (worshipping family god in group) are other examples of social cohesion and traditional community management systems among them.

Occupation

Any one can easily identify the main crops of Lele by seeing women planting paddy, making local alcohol out of millet, fields covered with beautiful yellow flowers (mustard), and maize suli in each

house. It also tells you that agriculture is the main occupation of Lele people as it is for the majority of people in the country. It is also obvious that stone quarry is another main source of income for the people. Men, women and children can be seen in the stone quarry almost all months of the year. The title Laptan Sahab and Hawaldar Sahab are given to the persons who serve the country as military and police men. It is pity to Lele that young people are migrating to Kathmandu for better job opportunities.

Before PAR intervention

The PAR team and Lele are getting to know each other

Without knowing each other, friendship and partnership can not be developed. When the Nepal Water for Health (NEWAH) was looking partner communities for the Participatory Action Research (PAR) project, it was UNICEF who introduced the PAR team to Lele. Actually, the Lele water supply system was implemented by the DWSO with support from UNICEF. The PAR team was very happy to get information on Lele from UNICEF Nepal and the DWSO in Lalitpur. But the information was not enough to decide whether to include Lele as a partner in the PAR project. Therefore, the team further explored Lele by visiting the community in early 1995.

Mr. Shiv Saran (technician from a neighbouring village), Mr. Ram Chandra and Mr. Jit Bahadur Silwal were the key persons who provided us the history of the water supply system, "*We worked very hard, community participation was very encouraging and you know, we drunk water from the tap within 15 days after the work started*" said Mr. Jit Bahadur Silwal. The key persons accompanied the team during an observation and village walk. The team observed the Panighat source, the taps, the distribution system, and the break pressure tank which was being used at that time.

However, the team thought that it would be wise to get suggestions from friends and experts before deciding on the partners for PAR. Thus the PAR team discussed the selection of partner communities with the regional PAR team during first regional workshop. The team ranked the visited communities based on a number of criteria. The team also discussed the selection with the National Reference Group (NRG) members at the first NRG meeting. The NRG members suggested the involvement of diverse implementing agencies. Based on information and suggestions of the NRG, Lele Mahadev Khola Village was selected as a partner community. The team informed the key persons of Lele ward No. 4 about their selection for PAR. Since then, the PAR team and Lele Mahadev community people are working together to achieve their individual objectives. The PAR team is grateful to Lele community for their acceptance of PAR as a partner.

Organizing for self reliance

As other rural communities of Nepal, Lele Mahadev village was also involved in development activities. There was a Forest Users' Committee which was well managed by the community. Mr. Rajendra Silwal was secretary of this committee. He was trained by the District Forest Office (DFO) on forest management activities. Consequently, there was routine for trimming trees and fuel and fodder collection, and a draft constitution on forest management. The PAR team observed that the darkness under the light was gradually changing into light. The community people were busy in planning to built a primary school in their village through community participation. They formed a School Construction Committee. They were also active to bring electricity in the community, with

activities such as the formation of an Electricity Management Committee and the collection of local materials. They were so enthusiastic about getting some budget from the Village Development Committee (VDC) fund to Build Our Village Ourselves (BOVO).

It was interesting to see that in every committee Mr. Rajendra was secretary. When the PAR team asked about the reason of overloading one person, Mr. Nani Babu said "because we don't have an experienced and literate person such as Rajendra".

Change of road

Before discussing the water supply system management it would be worthwhile to tell about the change of government role from provider to facilitator. In the 8th five year plan, His Majesty the Government of Nepal (HMG/N) changed its role from provider to facilitator. Policies were prepared accordingly. The sector leading agency Department of Water Supply Sewerage (DWSS) directed, instructed and oriented to District Water Supply Offices (DWSOs) on role of agency in the community water supply system management. The DWSO Lalitpur wrote a letter to the Lele Mahadev village Water Users' Committee (WUC) by asking Rs.1000/ tap to be collected and deposited in the Bank as maintenance fund.

"We recently received this letter from the DWSO so we informed the community people through a mass meeting" said Rajendra to the PAR team when they were in Lele to inform them about PAR and their selection. *"But people do not understand this, they think it is the WUC who is insisting for fund collection. They think water is free of cost provided by government so why should they pay. "It would be much better if it was collected during construction or before construction ."* said Laptan saheb. *"However we decided to implement a monthly tariff of Rs.10/household from 68 households through mass consensus."* Mr. Rajendra reported to the PAR team. During first mass meeting they reformed the WUC, but there were no women members on the committee. They appointed Mr. Jit Bahadur Moktan as caretaker, who was not trained but experienced through learning by doing. They also decided to pay Rs.500/month to the caretaker from the Rs.680/-, and Rs.180/- to be stored in the bank as a maintenance fund.

PAR intervention on water supply management

An ultimate goal of the PAR project was to enhance the capacity of the community in the management of their water supply system. Therefore, many activities were carried out during PAR intervention. However, the PAR team were very careful not to raise too high expectations from the community. Therefore they made their objectives very clear at the very beginning, and they asked the community to explain their expectations and offerings to the PAR project. The PAR team also explained their expectations from the community and offerings to the community, as well as the limitations of the PAR project. The PAR team gave an example of a chick hatching from an egg. A poster showing a chick hatching from an egg was presented to the community people, and they were asked what is happening and how it happens? People answered that the hen gives warmth and energy by the time chick comes out from the egg. Here the hen symbolizes an external support agency.

PAR support for capacity building

As was mentioned, the PAR objective was to provide the community with a fishing technique rather than give the community a fish. Therefore PAR has carried out a series of activities in order to make the community capable to manage, maintain and sustain their water supply system by themselves. Here some examples of what activities have been carried out.

PAR volunteers training; the first PAR volunteers training was organized in Birendra Nagar, Central region. Mr. Jit Bahadur Moktan and Mr. Jhalak Bahadur Silwal were selected by the committee to participate in the training. In this two day training, some PRA tools, phases and processes of PAR were discussed. They prepared a seasonal calendar and a social map of Lele Mahadev Khola, which were discussed with other community members during the diagnosis phase. These two PAR volunteers were the key persons during diagnosis phase. A few months later Mr. Jhalak left the village for a better opportunity. PAR could not stop him, but the PAR team learned a lesson that one or two PAR volunteers will not be sufficient to mobilize the whole community. When the second PAR volunteers training was organized, the PAR team asked the community to send six people from Lele, including two women. This resulted in six volunteers including only one woman, Mrs. Jira Maya Tamang. It was her first time to be in a training, which may have been the reason why she was so shy and not talking even a single word. This training was very practical in terms of the methods and techniques used. Various participatory methods were used such as case study, role play, game, field visit etc. The PAR team became very happy when they saw Mrs. Jira Maya participating in a role play without laughing.

Involvement of the people in the problem identification and analysis; Different participatory tools were used which helped the people to gain insight into the problem, and opened their eyes for action. *“When the system was completed we were happy, we thought that the system would remain in the same condition for our long life. We never thought this could happen, we were never told by the implementing agency that it could happen. The implementing agency just told us that it is yours, so you should look after the system yourself but what, how and why were never explained”* was commented by Nani Babu Silwal (Chairperson of present Water Users’ Committee). This cause-effect relationship of the problem exercise opened their eyes which resulted in action. They enforced some rules for water supply system management, such as Rs.50/- to be charged to anybody who cuts the water pipeline for first time .Rs.500/- for second time, and Rs.1000/- and recommendation for punishment to concern agency after third time.

PAR volunteers as facilitators; After the second PAR volunteers training, the Lele PAR volunteers organized a community workshop in their community. In this workshop, three PAR volunteers facilitated the sessions and the PAR team supported them. Though Mrs. Jira Maya did not come in front for session discussion and facilitation, it was incredible for the team that she was explaining and clarifying to other women about discussed subjects.

In order to strengthen the water supply management system, a five day training for WUC members was organized on leadership, communication, group management, financial management and proposal writing. The impact of the training was seen when a payment and receipt system was introduced in the community by Mr. Rajendra. Up to date the ledger book is another example of it.

Forum for learning

Various exposure, exchange and observation visits were organized by the PAR team. The objective of these activities were to provide the community a forum for sharing and exchanging ideas and experiences. This was also a part of capacity building. During the intra-project exchange visits, the Lele group identified a social problem in Yampaphant which was overlooked by the PAR team, namely the existing social discrimination (lower caste people have to wait for long time to collect water). In the first exchange visit there were no women from Lele. When the reason was asked they said that women avoid to go out of their homes or far from home, but the number of women has been increased during the later observation monitoring exchange visits.

A Rangapur PAR volunteer collected water from Saraswati pond in a bottle when he heard about its religious value that dump people can speak if they drink this water. This was an interesting scene of exchanging beliefs and value systems. The PAR team not only provided a forum to share experiences among community members but also with NRG members. On the fourth NRG meeting, Mr. Rajendra represented the Lele community and shared experiences with the NRG members. The NRG members visited Lele and interacted with community members. In this meeting, Mr. Rajendra met with the District Engineer of DWSO Lalitpur, who encouraged and assured him on further support for the management of the water supply system of Lele, which was really important for his moral support.

The impact of PAR

Untiring inputs of PAR resulted in a positive impact in the communities. The community people learned from their experiences, they became more vocal, and developed self-confidence on community management activities. Yampaphant committee members commented that *"Men and women of Lele became more vocal than before (compared to first exchange visit). Even the shy women were seen talking and discussing community management issues. Community management of the water supply system has been improved"*.

Learning by doing

Unlike the other three communities, Lele WUC followed the learning spiral of experience, analysis, interpretation and implementation in the real situation. This was the reason why different experimentation was undertaken for the operation and maintenance fund.

When they were asked to establish operation and maintenance fund by the DWSO Lalitpur, the community decided to collect Rs.10/ month/household. Though it was decided from the mass meeting, it did not work. 20% of the people paid irregularly, and 20% refused to pay at all because they thought the water supply system was provided by the government free of cost. Therefore, they decided to collect PANI PATHI (4 k.g corn/year/household). This decision was made during a community workshop. There was a traditional and religious believe behind this decision. It was believed that people of Mahadev Khola are used to pay LAM PATHI (4 k.g corn/year/household) to a Lama, a Buddhist priest. Community representatives thought that it will work because PANI PATHI would be a tradition based method to collect the water tariff. However, it did not work either. The reason explained by the committee members was that there are different auspicious times of each family to use their storage corn. The time set by the committee did not match with all family's auspicious time. The committee members could not follow up frequently in the scattered

village. The committee members realized that this decision was not practical as they thought. This time they decided to collect Rs.1,000/tap which would be deposited in the bank as a maintenance fund, and the interest would be used for minor repairs of the system. They introduced this new system, and now they have more than 14,000/- (fourteen thousand) in the bank.

It was very interesting that they have been experimenting with one problem solving strategy after another. This was also one of the impacts of the PAR inputs for capacity building. The success of this activity encouraged the Water Users' Committee to go further ahead. They realized that financial independence is one of the most important factors to maintain and sustain water supply management. So in February 1998, in a community workshop, they decided to collect Rs.5/month/household. This was supported by the PAR team which provided user cards. "Oh! this is the one what we wanted, it will be very useful to keep records up date and perfectly" Rajendra expressed his feelings.

In order to maintain the regularity, they also enforced a fine and discount system such as if some one pays his/her tariff within 1 to 7 day of every Nepali calendar then 50 Paisa will be discounted. If later than these days then 25 Paisa per day must be paid as a fine. This system has been adopted to encourage users to pay the water tariff on time. This made people enthusiastic. Any one can see these things from their record. Now they have trained Mr. Kuber Silwal with the help of NEWAH and appointed him as a caretaker.

Moving towards self confidence

Learning from our own experience and developing self confidence is story of Lele. The story never ends if we explain every case that helped the Lele people to learn and develop their confidence. However, the PAR team thinks that it is important to share some stories which show Lele in a different way. While telling this story about Lele the team should not forget to mention that Mr. Rajendra is the one who is pulling his community towards development endeavour. The PAR team remembers that Rajendra, who tried to hide himself behind his colleagues at the first meeting, though he was the only secretary of all different committees. Nowadays Rajendra is a common name and a well recognized personality in Lele. He is the key contact person for other NGO personnel.

Here are some examples of how the community showed their confidence for self-development. It was part of the PAR process to identify the community problems and prioritize them to help finding a solution. In this context, the community identified their problems and prioritized them for problem solving strategies. They identified some technical problems that hindered a better water supply and thus the support from all community people. These technical problems were a broken break pressure tank, a lack of additional taps, and the need for a regulator for the equal distribution of water. But there was no fund available to the committee to do all these things. So they made a request to the Village Development Committee for assistance to improve the system. However, there was no budget available in the VDC because there were some other serious problems that has to be funded. They then asked the DWSO and again no budget. However they were not discouraged and requested to NEWAH for assistance, and NEWAH supported the system improvement. The DWSO carried out a technical survey, design and estimation to improve the system. Now, there is regular water in all water points, an active committee with trained care takers and tools. They have regular meetings (the 10th of every Nepali month), minuting and implementation of decisions.

When the PAR team asked Mr. Rajendra and other committee members for the first time to go the DWSO and request for assistance, the PAR team clearly observed reluctance in their eyes to go the DWSO. As if their rolling eyeballs are asking each other can we really go to DWSO? Then the PAR team assured them by telling that the team will call the DE for his support to them. After that they went to the DWSO but to the wrong place which was the Nepal Water Supply Corporation. Again they came to NEWAH and they laughed about themselves. "Till now we don't know the DWSO and how we can ask for support" commented Nani Babu. The PAR team gave the direction to the DWSO office, called the DE and requested for his support to the Lele community people. After that they have been visiting the DWSO frequently for different types of support and consultation, e.g. to get a recommendation letter for the registration of the committee in DDC for legalization.

They developed a constitution based on the sample provided by the PAR team. Now the WUC is registered to DDC for legalization. The long bureaucratic process to register the constitution became a story for Lele people. Rajendra has compiled the story on how they went through this process, which was also provided to the PAR team, perhaps to share the lessons they have learnt. They think the constitution will help them to manage their water supply system by enforcing some rules and regulations. And it is decided to hold a mass meeting every year for financial transparency and to inform and discuss with users the problems, issues and progress of the WUC.

Mr. Rajendra proudly said that "We have made it possible for our neighbouring village to drink water." The neighbouring village had been asking them for their support in the management of drinking water supply. The system was not working because some of technical problems and lack of materials. The Lele WUC asked DDC for financial support and they helped their neighbour to buy some pipes, to form a WUC and to improve their system. The PAR team thinks that this is the picture of a future PAR that everyone wants to see.

When talking about development of self-confidence we should not forget Mrs. Jira maya. She was so shy in the beginning, and now she is president of the women's group. The women's group has been implementing a sanitation subsidy, income generating activities, and a smokeless stove program. "This is an achievement of PAR" commented by Mr. Rajendra when he saw Mrs. Jira Maya working and discussing with other women's groups.

The WUC of Lele is selling spring water to the mineral water factory. By seeing this, anyone can understand and evaluate that Lele is heading towards self-reliance. Lele is moving towards the light of development, but they still have to go a long way to achieve its desired goal.

Outcomes of PAR evaluation

Final participatory community evaluation at community level took place in Nepal between Oct. 28th to 1st Nov. 1998. For this purpose the team of Renuka Rai and Laxmi Paudyal visited Lele in 28th Oct. and 1st Nov. 1998.

The team was only able to inform Lele community in the morning time of 28th Oct. The team left for Lele from Kathmandu at 11.00 AM in and arrived in Lele at 12.00 noon. Mr. Nani babu Silwal (chairman of WUC) and Mr. Rajendra Silwal (secretary of WUC) were waiting for us. They informed that, they walked through the village but they didn't find anybody at home. All villagers were busy in harvesting. Treasure of WUC was out side of village and other members were also

busy in their field work and stone quarry. The team explained the objectives of this visit to WUC chairman and secretary/PAR vol. and also thought that the information from only two members of WUC/ PAR vol. wasn't valid. So the team requested to WUC members to manage the appropriate time of mass meeting. According to suggestion of them 1st Nov. 7 AM time was fixed for mass meeting. After finalization of meeting date, the team walked through the village with two PAR vol. and a user. During our visit all taps seemed to be cleaned. Some of the villagers were busy in latrine construction.. They were building very nice latrine from the support of the People Awareness Program.

During village walk, Mr. Nanibabu Silwal said by showing the intake of mineral water factory and newly constructed taps " *we build the intake and fitted the pipe line for mineral water factory and constructed the new taps of water supply. We are trained like an engineer. We have attended various training and workshop conducted by NEWAH but we don't have any certificate of that training* " During our village walk, Mr. Rajendra Silwal said " *we registered the constitution of WUC and we were second in registering the committee in whole district.* " It shows that Lele villagers are one step ahead in this matter in comparison of other villages of Lalitpur district.

1st Nov. 1998

To achieve the objectives of community evaluation, the team moved from Kathmandu to Lele at 6.15 AM and arrived in Lele at 7.20 AM. Chairman of WUC Mr. Nanibabu Silwal said that they have informed to community people by letter about the mass meeting.

Before starting the meeting a old man advisor of WUC Mr. Chakka Bdr. Siwal said " if we call the guest (PAR team), we must get to gather in time. We informed villagers to gather at 7.00 AM why not they come in time". He also called the tap number to know that who is representative from which taps to confirm the presence of representative from each tapstands .

After waiting about one hour, the program was started at 8.30 AM in regular meeting place i.e., under the walnut tree. Thirty-two person including eight women were present in this mass meeting. Mrs. Renuka Rai explained the objectives of this meeting. She also requested the villagers to say clearly without any fear and hesitation about the PAR project. She further added that we are in learning period , so the suggestions of villagers will help to improve the weakness in future. After clarifying the objectives the following questions / checklist was used for community evaluation.

1. Wat was the history of water supply system ? and what sort of activities were they implementing ?

The historical trend was used to recall the history of W/S and the activities experimenting for sustainable water supply management system. Mr. Shambhu Silwal was selected for writing the historical trend in news print paper. After preparing the historical trend , he presented the paper to mass by requesting to add if anything wasn't mentioned there. The following points are responses of villagers what they presented to mass.

- ◆ Unicef started the water supply program through DWSO in FY 1993 Feb.
 - ⇒ In that time we formed the WUC but it was not reliable.
 - ⇒ WUC member didn't have any managerial and technical knowledge.

- ⇒ DWSO didn't tell villagers about budget of program, financial expenditure, technical and managerial aspect of project.
- ⇒ Most of the people thought that this is the program of government. Government construct the water supply program. If the water supply system breaks, the government will repair and maintain the system.
- ⇒ We didn't have any trained maintenance care-taker.
- ⇒ Actually the DWSO provided all spare parts. But only the person who had taken the spare parts and the person who gave the spare parts knew about it . But other villagers didn't know about the spare parts. After sometimes there was not any thing, we lost everything due to our own negligence.

◆ In 1993 / 94

- ⇒ In 1993 and early 1994, there was regular water supply but after that the water supply wasn't regular. Villagers began to cut down the main pipeline to collect water. The three taps were not functioning at all.

◆ In 1995 to 1998

- ⇒ In 1st May 1995, organized a mass meeting and dissolved the old WUC and formed new WUC. According to letter of DWSO, it was proposed to collect Rs. 500 to 1000 but nobody wanted to listen to it and the decision was made to collect Rs 10/household/month to pay for care taker. During that time a caretaker was also appointed.
- ⇒ In 2nd May 1995, PAR team came in in Lele from NEWAH and started the program of PAR.
- ⇒ Identified the various problems.
- ⇒ Found the root causes of problems by using various tools and techniques.
- ⇒ Mobilized the newly formed WUC.
- ⇒ Prioritized the identified problems.
- ⇒ Identified the problem solving strategies of the prioritized problems.
- ⇒ Identified the strengths and weakness of community to solve the problems.
- ⇒ Experimented various problem solving strategies to solve the problems.
- ⇒ Prepared the action plan and implemented according to planning.
- ⇒ Survey for additional taps was done by the technical help of DWSO.
- ⇒ Decided to collect Rs 1000/ taps and deposited in the bank.
- ⇒ Requested to NEWAH for financial support according to estimation of DWSO.
- ⇒ Constructed five taps by financial and technical help of NEWAH.
- ⇒ Fitted the new pipeline from water source to Rifel tole.
- ⇒ Constructed the new tank in Syantan Tole.
- ⇒ Dug the pipeline for health post and supply the regular water.
- ⇒ Repaired the break pressure tank and it is well working.
- ⇒ Maintained the water flow by using regulating valve. Distributing equal water supply in all taps.
- ⇒ Registered the constitution of WUC.
- ⇒ According to constitution of WUC sold the water of Dudako Mukhā (equal to 40mm pipe water) to Olampik Mineral Water Factory in Rs.1000 / month. We decided to deposit this money to bank account of WUC.

2. What were the objectives of you to participate in PAR ? and did you achieve these objectives?

We did participated in PAR by hoping

- * To supply the regular and equal water in all taps.
- * To use all waste water from the source and distribute in all taps.

Did you achieve these objectives?

We have achieved the most of our objectives. But taps No. 21 sometimes creates problem. This is the last tap. Care-taker said that we haven't clean the main pipe line, so some time the pipeline get blocked, then the problem raises.

3. What were the main problems you identified during community diagnosis?

Focus group discussion with PAR vol. and WUC members was main methodology used to get the answer of this question.

Villagers expressed the following problems:

1. No water supply in all taps.
2. Break pressure was out of order and pipe cutting problems.
3. No maintenance fund.
4. No latrine, open field defecation
5. No rules and regulation.
6. No trained care-taker.

Observer's comment

Actually they identified five major problems. number 2 to 6. In the community evaluation they mentioned : no water supply in all taps. But this problem is also related to 2 No. problem.

4. What were the problem solving strategies you developed ?

PAR vol. and WUC members were focused to response to this question. They mentioned the following points:

To solve the problem of 1 and 2 , we requested to VDC for financial support but didnot n't get succeed. Then requested to DWSO for technical support and NEWAH for financial support and constructed five additional taps and improved water source and pipeline and break pressure tank.

To solve the problem 3: Decided to raise Rs 10/household/ month and PANI PATHI but again we weren't so successful. According to letter of DWSO we decided to collect Rs 1000/ tap and deposited that money in bank . Now we are collecting Rs 5/ house/ month by using user cards. We sold water to mineral water factory for Rs 1000/ month. This is our five years agreement.

For problem no 4.

IRC distributed a booklet related on latrine construction. WUC members frequently mentioned in mass meeting about importance of latrine. Some people have built the latrine and some haven't. Now People Awareness Program has focused Tamang community to build the latrine. Till now twenty-nine latrines have been constructed with the support from this program.

To solve the problem no. 5

We registered the constitution of WUC.

For problem no 6. two person are trained as care-takers.

5. What are the strengths / positive aspects and trouble did you feel during experimentation of problem solving strategies ?

Strengths

- All people are united and equally participated in all activities.
- We have the opportunity to learn new thing.
- *Mr. Nanibabu Silwal said If we had any problem we were compelled to call the other technical person but now we are able to solve the some technical problem by ourselves.*
- *Mr. Chakkra Bdr. Silwal said before this program only 1% people were aware / conscious but now more than 85% people of Lele are aware about water supply management system.*

Troubles

- We had to face many problems to register the constitution. Government staff always postponed the program of WUC registration. We had to be patient and ready to spend more time to register the constitution of WUC.

6. What are the achievements did you have after experimenting the PSS ?

- We have set the habit of collecting operation and maintenance fund on regular basis.
- Regular supply of water in all taps.
- Villagers became more aware and conscious about the management aspect of WSS.
- Tapstands are cleaned.
- After the training of care-taker, If there is a problem in taps and pipeline , the villagers don't touch the pipeline taps without informing WUC. Mr Rajendra said villagers have set the good habit . Even there is no water in taps for three days, the villagers don't touch the taps and pipeline without informing to care taker and WUC member.
- Decisions are being implrnrnted.
- Committee is legalized.
- Sanitary condition of village has improved.

7. What are the strengths and weakness of four years participatory action research?

Strength

- Regular supply of water in all taps.
- Increased the maintenance fund.
- We are trained. We don't need to go to outside for technical person.
- We became more aware and conscious about the management aspect of WSS.
- We become self- reliant and self- confidenced.

Weakness

- This program is only focused on water supply management system but we didn't have any program and support for health education and sanitation program.
- We are trained in various aspects of water supply management system but we haven't got any certificate.

Suggestions

It would be better to launch the sanitation program with water supply management system.

8. Is your water supply management system improved?

- Yes, our water supply management is improved. We became aware in all aspects of management system. We are able to CO-ordinate to other organization .

9. What is your future plan?

- We are planning to clean the main pipeline in January 1999.

10. Do you want to disseminate your experiences / Do you want this type of research to be replicated in your neighboring villages and other villages?

- We want to share our knowledge / experience. But we don't have certificate. so other villagers mayn't trust us.
- Really, it should be replicated in any other villages.
- Mr Rajendra said that our neighboring village ward 3 asked that will this research be in their village? He also said that the staff of People Awareness Program took a interview with him inquiring about how the research program was conducted? and what sort of problem did you face? etc.

Evaluate Remarks

Because of busy harvesting period , we could n't conduct the separate mass meeting and focus group discussion. However, we told that this issues is focused to PAR vol. and committee members and this question is for other users. Although the villagers were very busy the participation of villagers was appreciative and encouraging.

Chapter 6: Changing roles is not that easy

6.1 Belén in Guatemala: How to change ineffective management?

When the Participatory Action Research (PAR) project, the directors were not actually interested. The ex-president of the Belén water committee declared: “If you bring pipes, money or something, we can work; if not, we’re only wasting our time.” The ex-secretary told us in a more frustrated tone, “You are like all the institutions – you offer but you don’t come through. We’re sorry, but we’re tired of offers.”

With a group of residents, we began the PAR. At first we were the investigators and they did the favor of supporting us. Then they started getting more involved. It motivated us greatly when four women got involved in the local investigation team, but even more when they assumed the commitment of joining the committee.

When the project was finishing up, the perception of the leaders and the local team of investigators was different. They were conscious that the supplying of water was their responsibility. They considered the team of investigators technicians that we supported.

In the last community assembly where we were with them, after finishing the evaluation of the project, doña Dora handed over diplomas of recognition to the companions that directed the PIA process in the community and said:

I am happy because we now have water. Those of us on the committee worked in spite of having several problems to resolve. The people pay their fees and love those of us on the committee. Now, it certainly is a pleasure to be on the committee.

They did not bring us pipes nor money nor material things. Together with them we learned to solve our water problems. The rain ruined our project again and we are sad, but at the same time happy, because how we already know the way to solve this problem.

Now we know that it is not enough to have money; one must sit down, talk and sometimes fight among ourselves to find a solution. I also know that some well-off people in the community don’t like this because we bump into them, but you know very well that here *O TODOS HIJOS O TODOS ENTENADOS*⁸. Thank you.

Evidently, the project was rather instructive for them as directors, but also instructive as community members.

What to say about those of us on the team whom it was difficult to abandon our traditional forms of supporting the community, but at the same time, we convinced ourselves about other more motivating ways to work with people.

⁸ This colloquial saying basically communicates the idea of “share and share alike.”

I. What is the Belén community like?

The village Belén belongs to the Palmar Municipality, Quetzaltenango. It is a community on the side of the highway from Quetzaltenango to the southern coastal lowlands. Belén is five kilometers from the municipal seat of El Palmar and thirty kilometers from the city of Quetzaltenango. The climate is temperate. The majority of its inhabitants are indigenous Quiches.

When you arrive to Belén, you see a small community. The 290 houses are grouped together. Its total inhabitants number 2,038. Around the houses are planted some coffee bushes and fruit trees such as orange, lemon and banana. Land is also rented to plant corn and beans for family consumption.

Those that live in this community are people that have come from San Francisco el Alto and Momostenango and people displaced from the plantations. They need to work, according to don David "to have money to buy food and for family expenses."

Starting at five in the morning, men, women and young people go to work in the plantations to cultivate coffee and macadamia nuts. They walk five or six kilometers in an hour and a half to get to the plantation. The men take their machete, scythe and knapsack where they carry their lunch. The women take a basket or bag and the young people, a backpack. They return from the plantation at three in the afternoon.

There are also merchants that sell bananas and coconuts. They travel to different markets in Retalhuleu, Mazatenango and Quetzaltenango.

II. How have they supplied themselves with water?

The traditional means of supplying water

Before 1975 they did not have a house water system. Doña Paulina, a mother of a family, would go to the *pocitos* ("little wells") starting at five in the morning and begin hauling the water that she would use for the preparation of food, washing of dishes, bathing the children and for the family's drinks.

Hauling water was very difficult, especially for the women. It was done every day, and as they recount, they would wait their turn for up to a half an hour to get a vat or can of water.

At nine in the morning, the women would go to the Ixcayá River to wash clothes, walking an average distance of 500 to 1000 meters. They took advantage of the trip to bathe, as did the men.

For the woman workers on the plantations, they would busy themselves with hauling water upon returning from the plantations from three in the afternoon on, while others went to the river to wash. The children also helped in the hauling after returning from school.

The community effort to construct their water system

Don Arnoldo Ixcoy, president of the water committee since 1996 relates:

[I]n 1975, eighteen people from our community met with the mayor of Palmar to talk about our needs in Belén. There we told the mayor that our roads were bad and that we didn't have a school nor electric power nor water. Then the mayor told us to organize. In that way the canton's improvement committee was formed with five members, among them, Pedro Chun, Matías Itzep, Encarnación de León and Carlos Itzep.

After having formed the improvement committee, don Carlos Itzep recounts:

[T]he mayor of Palmar, don José López Rodríguez, came to Belén canton to offer us the water project, but we asked first for a school and electric power . . . My worry was the school because I already had one nine-year-old child and there was no school in the canton.

In 1975 a work agreement was made between the Municipality and UNEPAR to do water projects in all the communities in the Palmar municipality, which included Belén. Steps continued to be taken because of pressure from the women. According to don Felipe, "the few women that came protested about the lack of water."

In that way the committee once again took steps with the Municipality. Later, the Municipality supported these steps and solicited the intervention of UNEPAR who was still willing to build the water supply system.

In 1982 a work agreement was made between the community of Belén and UNEPAR to build the water project. UNEPAR, based on the government resolution 293-82, defined the form of charging the fee and named the members of the water-introduction committee with the same people that were on the improvement committee. This committee was to last two years.

For the construction, the committee organized the beneficiaries into commissions, dividing the community into sectors to establish the shifts for ditch digging, hauling of local materials and other tasks. The purchase of the spring was also made, as was the paperwork to legalize right-of-way permits.

Two years later UNEPAR, together with the committee, carried out the water project construction. UNEPAR gave technical assistance and construction materials. As for the technicians and social promoters of UNEPAR, no training was done.

This project was inaugurated in 1983, supplying at that time 86 families and a population of 516 inhabitants. At that time, five people were named to the committee.

III. How was the water project managed?

The first actions of the committee

The new committee began working, but it only dedicated itself to collecting the fees, handing over accounts to the Revenue Administration and selling new connections. At first, since the project was new, there were no problems. Maintenance consisted in cleaning the distribution tank and, occasionally, the collection tank.

Don Herminio Pérez, member of this committee, relates that they met few times. Three years after having been constructed, the system already had many problems. People protested because the water did not get to all the sectors. Problems also began among the committee members. Only the treasurer and secretary, backed by the water engineer, were the only ones that made decisions.

The president and two members decided to no longer participate on the committee because they did not like the secretary and treasurer's way of working, and due to the problems that occurred in the project. The treasurer and secretary continued on the committee for twelve years.

The project's main problem consisted in the fact that the first spring that was bought was no longer sufficient to distribute water to all the beneficiaries, and new taps were sold without taking into account the spring's capacity. Also, much water was used for production purposes, especially cattle and coffee. What is more, there was population growth because of the people who immigrated due to the violence.

The first rehabilitation of the water system

Because of pressure from the beneficiaries, the committee decided to buy another spring. It asked for the economic collaboration of the beneficiaries of the water project. With this money the spring, located in the Morelia plantation, was bought. In 1992, UNEPAR started to do the work and in 1993 it was inaugurated. One hundred more services were installed, adding up to a total of 190 connections with septic tanks for waste water and 190 improved latrines.

After the extension of the system, the treasurer and secretary continued making the decisions and directing everything related to the water project: they collected fees, cleaned the collection and distribution tanks, repaired taps in houses and gave a trimester accounting to the government.

They themselves once again sold more services without considering the capacity of the spring. By 1994 the number of connections reached 315. With this number of connections, and because of the poor management of the project, problems began again. Doña Dora told us, "We don't have water all the time; there's a shortage because the committee sells new taps; there are water leaks and the community of Belén is growing."

The committee did not worry itself about these problems. Don Santiago related that "necessary repairs aren't made, nor do they do a general review of all the elements of the project and the accessories that are used, and those from the committee never give an accounting to the community."

Since water did not arrive, people despaired. They no longer wanted to pay the fee. Only 75 members who received water paid the fee. What was collected served only to pay the Q 300 (US\$ 45) each month to the water engineer for cleaning the tanks and constantly repairing water leaks in the system.

The committee made the decision to ration the water supply, dividing the community into five sectors, and so taking advantage of the night to fill the tank. With this decision, costs elevated since they had to have a full-time water engineer who was in charge of closing and opening valves in these sectors on a daily basis. The fee increased from Q 17 to Q 27 per beneficiary.

This measure did not have the desired effect because it did not manage to satisfy the minimum quantity of water that the families needed because water did not get to the high and isolated sectors. People continued protesting. Doña Hermelinda said “that in the high sectors of the community, the water no longer arrives and in the sectors where it does arrive, they only have water for three hours, and not every day. Nevertheless, the committee does not do anything.”

Doña Eugenia also said:

It's not known what was done with all the money that was gotten from the sale of the new taps. The committee doesn't give information about how much has been obtained with the sale of the new connections, nor about the investment of this money. Neither do they inform about the total number of beneficiaries.

Doña Cheli commented that “we're tired that our project doesn't function well and neither do we agree with the work that these three people are doing.”

UNEPAR did not want to have anything more to do with this community due to how complicated its problems were. At the same time, the community was not in agreement with the institution. According to the beneficiaries, “The only thing UNEPAR has given us is a promoter that reviews the books, but he only works with the treasurer every six months.”

IV. How was the PAR project initiated and implemented in Belén?

Community assessment

The investigation team visited committee members and some beneficiaries of the Belén water project where it was explained to them what PAR was all about. At first, those from the committee did not say anything; then the team decided to work with a group of beneficiaries, with whom a group of local investigators was put together.

Referring to the local investigation team, doña Dora Funes noted:

We got together – doña Eugenia Gómez, doña Hermilinda Pérez, doña Paulina, don Valerio and I – because we were worried about what was happening to the water project. Our intention was to help improve the system. What has helped us to work is that we know all the problems that we had with the water. Hopefully, with your help [of the local investigation team] we think that these problems can be solved.

When PAR began, doña Paulina was one of the most active women. She said: “First, let's fix the water problem and once the people see there's water, maybe the committee can be changed.”

Next, the local investigation team made a participatory assessment of the community's water and sanitation. To do this assessment, the following steps were followed:

First: The local investigation team was trained in the investigative work that they had to do. Afterwards, a list was made of what needed to be investigated and the ways to obtain information.

Second: The investigation team did the field work. It began with a walk through the whole community, where everything being observed was sketched out according to the list of topics that had been selected – water uses, current condition of the project’s structures and latrines, garbage, black water (sewage), etc. Then meetings were held with the committee and with groups of women to get familiarized with aspects of the water situation. Other techniques were also applied such as structured interviews, matrices, historical timeline, (cortes transversales).

Third: The investigation team made a report and presented it to the whole community in a communal assembly. Specific problems with the water were discussed in work groups.

Fourth: Ideas and alternative solutions were established. In the assembly don Rubén said that “the first thing that we have to do is to get the water to all the houses and for a longer time.” Others expressed that “if it is necessary to give an economic contribution, we are willing to give it.”

Within their experiences of the investigative work, (they) recount the following: “When we on the investigation team began, we said that we could help the committee work to fix the water problem”; “when they told us how many taps they had sold, we then understood that those gentleman [the treasurer and secretary on the committee] made a lot of dough [money]; that’s why they didn’t leave their posts”; “we also understood why the two people on the committee aren’t in agreement with the ladies from the investigation team.”

Planning and making decisions with the people

When the community had information from the assessment, it analyzed and discussed it, (surgen) a planning process and made decisions through the meetings and assemblies. This process can be observed in the following selections:

- Don Augusto expressed that “the committee can’t be changed now. They have to (fix) the water problem so the other committee begins working . . . One must see how integrating the other members is done that the committee is missing so that only the three that are working now don’t continue working alone.”
- “Also, we want a technical study to be done and a budget made to fix the water problems because we don’t know what is going on – the tank empties fast.”
- To follow up on and solve the problems that were detected, the assembly agreed on the local investigation team going on to form part of a water committee support group. Regarding this, don Jorge commented in an assembly:

Now that you now know the problems, you studied them and have time to keep on meeting. It’s better if you keep supporting the committee. Always let us know what you’re doing to help them.” In this way, the local investigation team transformed into the committee support group.

- This support group was first to establish how much money the committee had to see what activities could be done. Nevertheless, the treasurer and secretary did not want to give the information, saying that the support group was not elected by the community as committee members, nor did they have credentials, much less the support of UNEPAR.

- These two people that had the project under their control were not very much in agreement with the local investigation group as we see from these comments:

The women that are in the support group are very nosy – they want to know everything.” Also, some residents invited by the women to the meeting to make decisions, commented “maybe they [the women] don’t have any way to occupy their time.”

- “The two from the committee [the treasurer and secretary] don’t come to the meetings; that’s why we feel bad about continuing as a support group to the committee. It would be better if people made appointments to see what is done with the committee.”
- Doña Dora, member of the support group, commented: “In order that the water problems get fixed and good decisions are made, it’s necessary to have a complete committee. Those that are already there don’t attend, nor do they work. It would be better if they resigned.” Nevertheless, the answer from the people was “that the committee not be changed; one only has to fill the vacant posts.”
- In this assembly, it was finally agreed upon to have an election and fill the vacant posts. Previous to this, one of the members of the support group declared: “to form the committee, it is important that the women be taken into account because we understand better the problems when there is a water shortage.”
- The persons elected were: president, Arnoldo Ixcoy; secretary, Rigoberto López; treasurer, Telma Alma Luz de León; committee member I, Aracely Itzep; committee member II, Santiago Ramos; committee member III, Eugenia Gómez; and committee member IV, Dora Funes.
- Once the new committee was integrated, doña Alma Luz said: “if I accepted to be on the committee, it is because I want to show that it is possible to work; people want water and they are going to have it and for that they have to give money.”
- At first, the new committee resisted taking into account the suggestions that the support group had been working on because they kept trusting that UNEPAR would come and solve the problem for them once again.
- Several applications were made to UNEPAR to support the improvement of the system or to authorize another institution do it. As a result, no answer was received. Faced with this, some committee members declared: “the best thing is for us to solve the problem and not wait for UNEPAR to come. We on the support team have always said that the residents of Belén must solve the problem in Belén while looking for some outside resources.”

Based on these analyses, discussions and proposals, the committee made a community plan to improve the supplying of water. Aspects of the system included were budgets, committee, functions of local personnel, administration, regulations, and fees. This plan was also validated in community assembly.

New work methods of the water committee

a. The first thing is to ensure the water

Conscious of the problems that affected their water system, immediate action to improve the supply of water was initiated according to two principals: a) provide water to all the beneficiaries; b) search for ways to collect the fee from all the beneficiaries; c) look for financing for another rehabilitation; and d) begin the paperwork to legalize the new committee.

For the improvement of the water supply, the new committee divided the community into two sectors in order to rationalize the system. One sector had water 24 hours and the other no. This measure was adopted to check if the flow and pressures had the capacity to supply 50% of the houses and also to verify leaks in the system. It was then realized that one sector consumed more water than the other, above all because there were more connections and also due to utilizing the water for production ends.

The stopcocks were changed because they were deteriorated. Next, the committee took a second measure that consisted in the regulation of connections at low points. The test was done for one month in 100 houses resulting in the water arriving to the most affected houses. People agreed but demanded the measure be taken with everyone.

This measure, although it managed to “regularly” supply water, was not a definitive solution. It had advantages since it did not require a full-time water engineer. The president, who had already been in formation since PAR began, began plumbing activities.

b) Second rehabilitation of the water project

The solutions were not definitive because the water kept failing. The water flow in the tank was not sufficient to supply the whole of the community. The committee began thinking about the second rehabilitation and, with the help of the PAR project technician, ded a study and made a budget to determine a solution to the water shortage problem. That this process involve and commit the people was one of the conditions of the investigative team.

The study reflected the need to make a change in the conduction line because the tubing did not correspond to those specified in the design. This would allow for increasing the flows and covering the demand for water. Since the committee did not have economic resources, the beneficiaries did not have all the money that was needed. The committee made the decision to take the steps with institutions to solicit economic support. As a result of these steps, they manage to get a Q 5,000 donation from the Municipality of Palmar and a loan from Nuevo Amanecer for Q 11,000. This loan had to be paid off in six months by all the beneficiaries.

In 1987, the work for the second rehabilitation was done. Together with this work, the committee and the local team of investigators implemented the community plans with the support of the investigaton team. These plans included action related to redefining the fee; regulating the water supply; improvements in the system; prevention of deforestation; training of treasurers, secretaries and water engineers; and exchange between committees.

One of the training sessions was for water engineers and committee members on the water project's elements, for example, tank volume and its capacity for supplying water.

The committee members felt calmer: "Now we know when it's possible to give a new tap and when it's not." The committee took steps to make a budget for the new tank and has planned the construction of this tank for 1990.

In this way, they managed to get the people to pay the fee, make regulations for the water supply and consolidate the committee.

c) *The problems that are faced as a new committee*

The work that the new committee had been doing was very difficult. The previous committee did not easily leave their post; there were people that still believed in them. The previous treasurer and secretary continued taking steps with institutions, installing new connections and collecting the fee. This situation gave place to the existence of two groups. As don Julio expressed: "Well, now we don't know whom to pay the fee and the contributions that are asked of us."

In spite of this, the new committee had collected additional contributions. As the treasurer noted: "I would go to the houses to collect the contribution to pay the debt on the repair that was done. It seemed that the men were embarrassed that a woman was collecting from them, so they paid me."

The assembly then named two people to join the committee to support and reinforce the activities as well as to bring about a new restructuring of posts within the committee.

d) *The principal achievements of the new committee*

Despite the previous problem, the new committee had managed to make an impact in the community. Among the most important achievements was making regulations for the supply of water, in which community leaders, authorities and the committee participated.

With this experience the committee managed to legitimate itself because it made a regulation proposal with the support of a group of beneficiaries which was presented in assembly to all the community members. In the assembly some community members protested and disagreed because they supported and called for the regulation that UNEPAR had left them.

The beneficiaries held a second assembly. A commission of beneficiaries is elected that along with the committee and the advisors of the PAR team take responsibility for making the arrangements suggested by the assembly. The discussion that took place regarding the regulation allowed the people to inform themselves about the regulations as well as helping to improve them.

In this way, better attention was given to the maintenance of the water project by the committee. The problems that occurred in the projects were due to negligence or accidents; for example, "in the sector of the curve and white rocks, there was no water, and it was all because the men that laid the telephone cable damaged the general conduction tubing."

Another achievement was getting people to provide manpower. For example, time to revise all the conduction of the water project because there was a pool of stagnant water in the spring. Some residents went with the president to the spring to investigate what the problem was. Don Alberto lent his car to buy the replacement part. This made the committee very happy because, as don Arnoldo notes, “the beneficiaries protest but they also collaborate. This experience had never happened before. Now we *do* have support from the people.”

The beneficiaries wanted to reduce the fee because a full-time water engineer was no longer being paid, but an annual administration and maintenance budget was made that was also accepted in assembly.

On the organization end of things, the legal authorization of the new committee by the departmental government of Quetzaltenango came through. The committee was reorganized and the posts of treasurer and secretary were assumed by honorable people from the community. The committee was complete, with four women participating as members.

The participation of women in decision making was very positive, as the current president declares:

The work that doña Alma and doña Eugenia do visiting houses and inviting people so that they come to the meetings has been very good. It’s worthwhile getting their ideas to make decisions. Those women aren’t afraid to be criticized; on the contrary, now people speak well of them.

The relationship that the committee had with the local authorities was very beneficial. The auxiliary mayor had a presence in the communal assemblies and in the committee’s internal meetings. The presence of this authority gave formality and respect to the agreements reached in the assemblies. It also represented respect from the community toward the committee.

Elsewhere, the municipal mayor of Palmar invited the Belén committee to share its experiences with twelve other committees of the same municipality. The municipality financed the food for this encounter and declared its interest in the exchanges continuing. It also solicited the members of the investigation team and the local investigators to support these other committees.

e) *Collective decision making and management in the supply of water*

In Belén, making decisions with all the beneficiaries of the water project was somewhat difficult, first because the members of the previous committee would not give anyone the opportunity in the assembly to talk about water matters; second, because the beneficiaries did not have responsibilities – they always waited for someone else to do it.

Within the work of the PAR project, the need to reach agreements in assembly was discussed, as well as for improving the effectiveness of the assemblies through participatory techniques. The new committee realized that making decisions together guarantees the commitment to fulfilling the agreements for which all the beneficiaries were responsible.

From then on, the assemblies improved. The majority of the beneficiaries of the water project participated. In the assemblies, problems relating to the supply of water were posed and resolved. The decisions and agreements that were reached were respected and put into practice.

The election of the people that make up the water committee was done in assembly and put on record signed by all the participants. When one of the committee members resigned from the post to which he was elected, an assembly was convened to elect the substitute.

In the rehabilitation of the water project, the assembly was necessary to determine the economic contribution each beneficiary had to give. The committee presented clear proposals and budgets so that they would have credibility with the people.

The assembly served to validate the assessment, regulations and fee. The committee meetings were also improved through the support of the investigation team, especially in drawing up agendas, recording agreements, following up on agreements, and creating some techniques to make the meetings more efficient, especially regarding participation.

The committee also utilized the meeting to organize its administrative work, especially for the control of the system's human, financial and material resources.

f) *The direct intervention of women in water management*

In the previous twelve years of community work in water supply and sanitation, the women had not gotten directly involved in the management of the water supply; neither did they form part of the committee nor did they make decisions.

During the construction of the system, the participation of women was limited to making food for those charged with the work and receiving a few talks on the use of water, the latrine and on hygiene in the home.

It had been recognized that within the community there existed women with capability to administrate but without the space in which to do it. One limitation was the fact of being married, because the decision to participate did not depend on them, but rather on their husbands. (Además, por todos.....)

Within the PAR project, women were taken into consideration, for it was they who made the greatest use of the water in daily life, using it to prepare food, bathe the children, wash the family's clothes. Consequently, they were the ones most affected by the situation.

From the very start of our project, the local investigation team that was formed in Belén was made up of five members, four of them women. Afterward, three of them joined the water committee currently in office. It is they who have motivated with the greatest force the work that the committee did.

We can appreciate the value that the men give to the work of the women in what don Juan said: "These women are really determined; these women *pusieron pilas* ("put in the batteries" i.e. work energetically and with enthusiasm) in order to revive the water committee. Although it's difficult for us to accept, thanks to them, we have water." Another resident commented to us that "the women are more intelligent in obtaining and spending the resources. They know when to say 'yes' and when to say 'no.'"

g) Changes in the fee to guarantee the water supply

At first, UNEPAR left the cost of the fee at Q 17.00 a year per beneficiary without knowing how this cost was calculated. The treasurer made the fee collections, sending notes to the beneficiaries every three months to remind them of the payment. This cost was maintained until the system began to have defects. To fix the problems that arose in the water system, it was decided in assembly to increase the fee to Q 27.00 per year.

Only 45% of the beneficiaries were up to date with the fee payments. It's noteworthy that those who were up to date with their payments were the people with fewer economic resources and the community's elderly, quite unlike the young people and with those with more economic resources. The money that the committee collected for the fee only covered the pay of the water engineer. Not enough money remained to attend to the maintenance and repair that was needed in the project.

The local investigation team identified the most important problems in the diagnostic, among them the very low cost of the fee and the users' delay in paying it. With the support of the investigation team, a cost analysis was done by the committee. These costs included expenses for operation and maintenance, such as materials, equipment, tools, accessories, tubing, materials, the salaries of the water engineer and treasurer, and committee expenses.

According to the committee, by improving the water service, the beneficiaries would respond by paying the fees. The committee was right, for once the second rehabilitation was done, the beneficiaries contributed about 60% of the investment. From this moment on, the fee began to be paid regularly. In the first semester of 1998, the committee collected Q 3,777 by way of fees.

h) New water regulations

In the participatory assessment, it was established that the regulations were not up to date. They did not take into account the proper norms of the community, having been made from a desk and thinking only of the interests of the institution that initially executed the project.

The old regulations did not talk about the rights and obligations of the beneficiaries. They referred more to the functioning of the committee and its commitment with the institution.

The lack of adequate regulation kept there from being norms for the participation of the community, the roles of the committee, and the fees and forms of collection. Water and latrine use did not have any control for twelve years. A few examples of bad water use include: a) use of cisterns (*pilas*) with large tanks that in turn were used by children and adults as swimming pools; b) hose line connections to other houses; c) new connections without taking into account the capacity of the spring; and d) use for production purposes.

As don Santiago observed about this situation: "Having regulations is necessary. The beneficiaries are not familiar with the ones left by UNEPAR, nor do they work. Better to make some of our own." It was by analyzing this situation that the new committee saw the need to normalize water and latrine use; the participation of the beneficiaries in the care of the system and; the rights and obligations of the beneficiaries as well as the functions of the water engineer and the committee.

The new committee and support group, with the help of the PAR team, drew up regulations through the following steps:

- a) In three- to four-hour meetings, the water committee, the users and the water engineer did a review of the previous regulations, especially the problems with understanding them.
- b) A list of problems was made about water and latrine use, especially those that most affected us and generated conflict. Also, the role of the committee, water engineer and beneficiaries was examined with help from the technique of *la placita* ("little plaza").
- c) Proposals of norms were established to help improve the process of supplying water.
- d) With the support of the investigation team, a draft was drawn up.
- e) The draft was presented in general assembly. It was analyzed, discussed and improved.
- f) The draft was presented to the assembly again. The points were approved by consensus.
- g) Some points wherein there was not consensus were reformulated and presented in the following assembly.

The contents of the new regulations look to clarify for the users of the water supply system the rights, obligations and sanctions as well as the principal norms for water use. The main functions of the committee and water engineer are considered for the administration of the water supply system.

The objective of the regulations is to guarantee that both the beneficiaries and the committee (and water engineer) are responsible for fulfilling their functions. It also looks to the beneficiaries themselves to take ownership of the water project and to be able to have strict control, applying sanctions that the committee itself and the beneficiaries have made.

The committee shared the experience of drawing up regulations with other communities that face the same problems and that have taken an interest in making their own norms.

Conclusions

1. When the committee assumed responsibility for the management of the water supply, it became independent from UNEPAR. It got rid of the conformity and dependency that came from waiting for others to solve the water supply problems. It permitted the beneficiaries and the committee to feel like the owners of the water system. It gave the possibility of making their own decisions and looking for alternative solutions, taking advantage of the resources that they had in the community and outside of it.
2. When the beneficiaries gave their economic contribution and actively participated in the activities to improve their water supply system, there was greater responsibility to care for the project and take advantage of the water without wasting it. Mechanisms of control and permanent monitoring were established.

3. Before, the concentration of power and technical ability permitted corruption, community discontent and frustration for those truly interested in supporting the project.
4. Attending to what the people want immediately, especially with regard to fixing the technical break downs in the project, is a good point of entry for analysis, discussion and training of people with regard to water.
5. The participation of women in the administration of the water project is many times more efficient because of the rationality that they have with respect to the use of resources. Their participation also permits the projects resources to be used.
6. The methodology, techniques and tools of PAR are easy to manage by the community for water management and other community development action.
7. The investigation team consolidated its idea regarding the applicability of new approaches and methodologies that empower community potential and guarantee sustainability of water.

6.2 Kiveeto in Kenya: putting ownership where it belongs

The Kiveetyo/Kathyioli gravity scheme was preceded by natural water sources, mainly scooping water from the river beds. As sand harvesting increased, the amount of water available from this source diminished.

Physical features

Kiveetyo/Kathyioli is hundred and fifty kilometres east of Nairobi on a tarmac road to Makutano. To reach the community, you need to turn into an earth road that is extremely difficult to pass during the rainy season. The vegetation in Kiveetyo is dry shrub land with few trees especially on the hilly slopes. On the low lands cultivation is practised by the peasant population who lives dotted on sloppy hills and valleys, mainly cultivating maize (Katumani variety) and pigeon peas. Mangoes grow wild.

The traditional water source is predominantly scooping the dry river beds, which are threatened by river sand harvesting which is ferried to Nairobi as construction material. Donkey/oxen carts and bicycles are mainly used by women to collect water from these traditional sources, whose yield is very low. The river sand harvesting is causing considerable environmental degradation causing depletion of water resources. Farming in the water catchment areas (hill tops) has caused some of the streams to dry up or their yields reduced significantly. This is causing severe water scarcity, and inadequate water quantities.

Socio-cultural aspects

The predominant group in Kiveetyo is the Akamba community who are renowned for their hardworking nature, integrity and appreciation of new innovations. The Kiveetyo group speak one language and are a very cohesive community, who are proud of themselves and their self help spirit initiating various community based development activities, which have contributed to a large extent in alleviating the harsh climatic conditions prevailing in this semi arid region.

History of the project

The Roman Catholic Diocese is the benefactor of the Kiveetyo/Kathyioli Gravity Scheme, while the community contributed in labour. In this gravity scheme little training was done to improve management skills of the community. Like in all implementation projects, emphasis was placed on physical achievements. Operation and maintenance came into being as an after thought with no rules and regulations (constitution) to guide the management of the scheme. Consumers got water for free except at the Mbiuni Market where drawers paid Kshs.2 per 20 litre container at the communal kiosk.

Physical facilities

The Athi Water Project was managed and operated by the Department of Water. The Athi Water Supply served a part of Kiveetyo. This supply became unreliable due to high pumping and water treatment cost as the source was a surface water source, the Athi River, which is heavily contaminated and carries high sediment loads.

Due to this inadequacy the community initiated the gravity fed Kiveetyo/Kathyioli Water Supply, which even though has very low water yields gives a steady flow of water which is rationed to the

three main lines (areas) Kiveetyo, Kathiyoli and Mutitu. Water is rained to each of the three are in rotation during the day, while in the night water is allowed to flow to institutions, mainly schools, which have storage tanks. The community intends to build a larger reservoir in order to store the night flow. Furthermore, plans are underway to harness more springs from up in the hills, a move that is likely to cause resentment from those communities living up in the hills who are unable to benefit form the gravity scheme. Due to the inadequate amount of water, the consumers collect water from communal water points (kiosks) free of charge. At some of these water points waste water is used to raise tree seedlings which are sold to the community for reforestation. As there is little vegetation, water and wind erosion are common causing large gullies and exhaustion of the fertile top-soil.

Community attitude

When the PAR Project entered Kiveetyo it was apparent that the community perceived the project as owned by the agency that assisted in financing the implementation. The community contributed no resources in the operation and maintenance of the water supply. Records, were poorly kept and information was not shared with the community as the committee considered itself accountable to the funding agency and not the community. General meetings were rarely convened and when convened no systematic approach was used to inform the community members of such meetings. Leadership apathy and wrangles existed among the committee members and the local administration was viewed with suspicion.

One notable item is that, whereas the Athi River Scheme and Kiveetyo/Kathiyoli Gravity Scheme served certain common areas, the are not interconnected. This is primarily due to the fact that the community feels that it will loose control of their gravity scheme and will be forced to also pay for the water to the Water Department as is required of those being served from the Athi River Scheme. The local administration was sidelined, while the general community was largely ignorant of the management of their water scheme. The committee in office wished to continue in office indefinitely as the lack of constitution and procedures provided a conducive environment to this 'status quo'. In general the committee were a friendly and welcoming group and gradually, the PAR team, working through the same committee, got to have meetings with the community and secured its approval to work with them on the study and research of the management of the water system. At this point the community was deposed to favouring physical consideration only.

The PAR team

The committee in Kiveetyo had a patronising approach to the management of the water scheme, giving little room to the inputs of the general community. Election of the management committee was usually hand picked, causing completion and bad faith in the community. Due to an unclarity in the division of roles between the water management committee and the local administration, anonyoumosity was high within the local administration, staying aloof to the detriment of the proper running and management of the water scheme.

Socio-cultural conflicts

Like many other communities, the Kiveetyo/Kathiyoli community looked steadfastly upon us like we were donors expecting that we would provide assistance for the physical extension of their water supply. Discussions were dominated by preconceived notions, and the community was always telling us what was pleasing for us to hear, quickly proposing solutions to their problems without adequate

consideration of the root causes of these problems. Initially, the community was eager to win our confidence and waiting to be given, never making any attempt to address to their expectations and issues themselves.

Community expectations

Kiveetyo/Kathyioli was not alone in expecting physical assistance from the PAR project. It took many meetings and discussions before the community started to appreciate the necessity of addressing management issues as a prerequisite to good governance and enhanced utilization physical facilities. In Kiveetyo/Kathyioli, like in Nyakerato, the concept of the a "member" was blurred. People attended and participated in the affairs of the gravity scheme even when they lived on higher ground than can be served by the gravity scheme. This unclarity on constitutional members dragged meetings into irrelevant issues in respect to the gravity schemes. Some committee members were elected to represent those areas that cannot technically benefit from gravity scheme.

In general the community of Kiveetyo/Kathyioli received the PAR project with an open mind and were interested in finding out what could be done together with the PAR team. They attended meetings and with time openly discussed their concerns, strengths and expectations. The committee in Kiveetyo/Kathyioli always came to the meetings at the agreed time, and whereas the chairman was illiterate, he ably conducted meetings always going by the agenda.

Reception by the community

As expected and mentioned, the emphasis was on physical improvements. Men were always in the majority in meetings and took a leading role. The committee was dominant and manipulated the community into the secondly place. The absence of a guiding procedure and constitution were factors that enhanced this anomaly. This issue has been addressed and Kiveetyo is emerging into a new status.

Kiveetyo Kathyoli
Water Supply
Self Help Group,
P.O. Box 8, Mbiuni,
Machakos

28th August 1998

Attention: Mr. Isaack Oenga

Dear Sir,

RE: CHANGE IN OFFICE BEARERS

During our last general meeting held on 21st July 1998, at Kyamboo Dam, elections were conducted and presided over by L.C.D.A Mrs. Florence Maithya.

Members present were 92 (ninety two). A word of prayer was said by Mr. John Ndonye at 10.30 a.m and then meeting took place. Our C.D.A. started by thanking members for turning up in large numbers. She addressed the gathering on virtues of good leadership and requested them to elect leaders with a vision. The meeting was also addressed by our Chief Mrs. Annah Ndabuki and Senior Assistant Chief Mr. Robert Mutisya.

The C.D.A Mrs. Florence Maithya dissolved the previous committee and presided over the elections in the following order:- The three piping line members were told to elect three officials each and the following were elected:-

Kathyoli Line:

1. Mrs. Christine Mutisya
2. Mr. Peter Mutune
3. Mrs. Victoria Mweu

Mutitu Line:

1. Mr. Joseph Mutua
2. Mr. Jude Mukosi
3. Mr. Joseph Mbithi

Kyamboo Line:

1. Mr. John Ndonye
2. Mrs. Mary Musembi
3. Mr. David Kitonga

The committee had been in poverty for a long time and consisted of elderly people, hence not easy for the youthful members to penetrate and participate in the affairs of the water scheme. The committee was not accountable to the community. The community was not clearly defined, and members and non-members of the gravity water scheme participated in the running of the water supply.

The group is registered with the Ministry of Culture and Social Services. The registration in this format does not give sufficient legal status and relies heavily on the good will of the local administration to enforce its own rules and regulations and where such good will is not forthcoming, the management can be in a limbo for an indefinite period. In Kiveetyo/Kathyioli, the consumers took pride in receiving free water for "It is our Water" without taking cognance of the needs for O&M.

Management aspects

In Kiveetyo the PAR team noted that the local administration were aloof due to the fact that the water management committee misunderstood the need and the mode of involving them. The general community looked at the project as belonging to the committee who in turn felt that their success should be measured in terms of water availability and not their accountability to and involvement of the whole community in the management of the water supply. Furthermore, the management committee saw themselves as good managers needing no remedy in the areas of management, but requiring support (financial and material) to extend their project to more consumers, view that was shared by the larger community.

Climate setting

In order to overcome these prejudices, within the committee and the community the PAR team used the following approaches, methods and tools: group meetings, discussions, village walk, observations, visiting household and doing household sketches, village maps, semi structural interviews, focused group discussions, key informant interviews, mixed group interviews for triangulation and cross checking, matrix and pairwise ranking, rope exercise, transect, story telling among others.

Community diagnosis and tools used

The village walk approach provided an opportunity for the PAR team to discuss observations made on the way with their guide. The various segments of the society were visited including the three main pipelines, the storage tanks, the water sources and the catchment areas.

Information obtained from the village walk, and semi structured interviews with the key informants was discussed with the management committee. This was synthesised into issues which were then brought into general community meeting and using pairwise ranking were prioritised.

Where is the Community

The management concepts that have been introduced in community management, especially those of chairman, secretary and treasurer, seem too obvious to require any attention. However in a community where a traditional village elders and local administration exists, who then is a chairman! Is he a local traditional elder or is he a new village chief? How does his office supplement or conflict with the existing administration structures? How does his office collaborate and integrate with the established administration entities? The secretary and the treasurer are functions that are also foreign in the communities. These offices/functions need to be clarified, especially when not all community persons are members of a water group or scheme, which may be due to technical limitations of the technology or other obstacles.

The PAR team conducted "training by doing" to focus on learning and not on knowledge transfer. The chairman, secretary and treasurer were trained, while the whole community were instructed on the qualities, roles, responsibilities and obligations of each of the offices. This is essentially such that when electing officers to the respective offices, the community have certain guidelines and criteria to help in selecting the right candidates for each of the offices. Further, it becomes easier for the respective officers to report back to the electorate based on agreed tasks to be undertaken by each of the officers. The obligations, responsibilities and roles of the community were also outlined, such as ownership, resource allocation, demand for services and accountability from the elected management.

In Kiveetyo the shaking up of the community was throughout the whole spectrum of the community. The use of the rope exercise showed the benefits of cooperation with all the other actors. The indifference of the local administration, the keeping aloof of the whole community as to the plight assailing the management of their water scheme took a new dimension.

The community started to demand a voice in the management of the scheme. The local administration took interest in the smooth running of the water system. The PAR team facilitated this process of change by working with all the parties interested. The members were visited in their households, the chief was visited in his office, and meetings were held where all the interested parties were represented. The merits of getting involved in the management of the water supply were discussed. The chairman, who wielded a lot of authority, was brought to see the merit of 'training' younger members. They had the energy, the resources and the posterity to offer.

Ten people from Kiveetyo participated in the exchange visit. This concept of exchange visit was extended by organising training sessions in rotation in each of the four communities. The treasurers training was done in Nyakerato, the secretaries in Sigomere, the chairmen in Yanthooko and bell ringers follow up training in Kiveetyo. This offered opportunities for ordinary people who were not in the management to participate in these exchange visits, thus providing sufficient opportunity for ordinary members to participate. This, while reducing competition for leadership in the respective communities, provided 'peer' group pressure for positive change. The communities planned together and set targets that they become accountable to each other. This evaluation of small groups provided the impetus for strong community commitment. Paying for water became an inevitable conclusion in order to raise funds for O&M. In one occasion, persons were invited to Sigomere to attend the annual general meeting. The use of the constitution in running the AGM gave a challenge to the Kiveetyo chairman who vowed to finalise and put into place the constitution for his water supply.

In Kiveetyo, the attendance of meetings by the ordinary members has improved significantly. The chief for Mbiuni Location is actively involved in supporting the water management committee. In the last general elections for the water management committee the chief was called upon to officiate the elections. Clarity has been obtained on who are members and who are non-members. In the past the secretary wrote no letters to invite people to meetings, but now as far as possible written communication is used and sent to members in advance setting the agenda for meetings thus people come to these meetings prepared. The ownership for the project is more and more getting grounded into the community, who are willing to contribute resources for the O&M in form of paying water tariffs and also in adhere contributions as necessary.

In order to obtain cohesiveness, the PAR team strongly encouraged those who attended training or participated in organised activities to provide feedback to the community. To enhance this, trainees

were selected by note in the whole community meeting. Thus the trainees had a moral obligation to report back and the community had a basis to demand feedback. The PAR team cross-checked the quality of the feedback through triangulation. For example, after the training of treasurers they were encouraged to share with their community the advantages of good financial accountability. In Kiveetyo, this led to the treasurer obtaining funds from the water committee to purchase proper books of account, which she used and shared the improved records with the community by way of regular reading of the books in account in the general meetings.

6.3 Nyakerato in Kenya: How to overcome being treated as a donor agency?

Nyakerato river has a source on Ibencho Hill, and the river stretches as far as the eye can see. The Abatabori live west of this river and have to walk up the hill to fetch water, a burden that caused them to initiate the Nyakerato gravity scheme. A small group of families requested for a spring protection water supply, which was converted to a small gravity scheme because of its potential.

Geography of the area

Up on the hills of Ibencho range meanders a rocky footpath on which only the 4WD vehicles can venture. Up here start the Nyakerato and the Getacho River. Getacho means protected spring. Getacho River is located in South Bogirango while Nyakerato River forms the boundary between Abakione of the Majoge and the Abatabori of South Bogirango.

The majority of the inhabitants are peasant farmers growing maize, millet, wimbi and beans as food crops and coffee and sugar cane as cash crops. The sugar cane is used to make "sukari nguru", unrefined sugar, a major ingredient for brewing "changaa" (a local whisky) which alcohol content is extremely high but which remains a constant companion of those who are already drunk.

Socio-cultural background

The steep hill of Ibencho and the many surrounding little hills house the Abatabori of South Bogirango and the Abakione of Majoge. These two clans intermarry. The Abatabori are in Kiaware Sub Location, South Bogirango Location, Etago Division (formerly Nyamarambe), while the Abakione are in Bosweta Sub Location, Sengira Location, Ogembe Division. Singira Location is part of the larger Majoge Location.

Nyakerato River is in its true sense, the boundary between two cultures. Whereas both clans belong to the Kissi tribe, they belong to two different ancestral families "Mwagongo" - the Abamojoye and the Abagirango. The former is the Monkey while the latter is the Leopard. Furthermore, one clan lives higher in the hills from where the Nyakerato River starts, while the other lives on the slopes where the river passes. One clan sees itself as the source and perceives the other as the recipient. This causes lots of divisions and lack of cohesiveness in the management, conceptualisation, and utilisation of the water resource, the Nyakerato River.

History of the project

Only a few families living next to the Nyakerato water source requested for spring protection, which was converted into a small gravity scheme because the opportunity presented itself. This explains why in Nyakerato the chairman, the secretary and the treasurer were all brothers until the PAR team enlightened them on the limitations of such a managerial system. With time, other families demanded a water supply service, and due to donor goodwill the gravity lines were extended, but only towards the Abatabori area (Nyakerato A). As time passed, those living up on the hill where the gravity was not possible were given a shallow well. This was called Nyakerato B, as the programme supporting this development could not allow two separate projects in the same area. However, evidence was clear that these two were in fact two separate district projects as they served two separate groups that had no possibility of any overlap due to the topography of the area, and

because the technologies used were distinctly different, a shallow well and a gravity scheme. It was during this period that the Abakione living on the eastern slopes of the hill realised that they could benefit from the developments that were going on. They demanded and got a gravity line to serve the eastern slopes. This was called Nyakerato C. However, the integrity of the leaders in Nyakerato C was weak, which led to a loss of materials during implementation. Thus the gravity line in this area is much shorter and therefore there are less distribution lines as opposed to those serving the slopes (Nyakerato A).

The project support agency faithfully followed a top-down approach, participatory tools were used only to identify the needs and while not much more was done to involve the people in the decision making process. The community provided free labour to dig the trenches while all the decisions were taken away from the community. Only the secretary of the project knew albeit vaguely some project implementation dynamics, a fact he used to black mail the community into electing him secretary over and over again.

The project management committee had no rules or regulations to guide the management, operation and maintenance of the water supply scheme. Emphasis was and still is, although reducing, on physical improvements.

The District Programme Office, the District Water Office and the community all have different views and concepts about Nyakerato water supply. This has been identified as a hindrance to the smooth management of the water supply. The community will need to undertake steps to inform the offices concerned about the truthful and correct picture of Nyakerato. Overdependence on the secretary as the project spokesman will need to be addressed and corrected.

Physical facilities

The Nyakerato community has water from springs, a shallow well (broken down), a protected spring and the gravity scheme. Many persons wish to get service from the piped gravity scheme, even when they live on higher ground than can be reached by the gravity pipelines. This issue has not been addressed sufficiently and people are not properly educated about its implications. Hence you find people living high above the gravity source contributing money and time to its management in the vain hope that one day they too will be considered for a gravity scheme, not realising that creation fixed that water flowing by gravity will never go higher than the source. It is interesting to note that whereas these persons living on higher ground gave money and time to the gravity scheme, they neglected a shallow well that had been built on their plateau to give them some source of water.

Community attitude

Due to the unclarity of which members belong to which water supply system, i.e Nyakerato A, B and C, the level of apathy ran high. People withheld contributions. Accountability was lacking as no rules, regulations or constitution existed. The management committee members were only loyal to their zones, always disputing everything that did not seem to benefit their area. The office bearers were elected into office due to their popularity in their respective areas even when they did not possess the prerequisite attributes. For example, the treasurer could not read nor write, hence the secretary did both the office of the secretary and office of the treasurer.

The PAR team

The PAR team arrived to Nyakerato in November 1995. A meeting was agreed to be held in December 1995. Due to the high level of mistrust among the three Nyakerato A, B and C communities, the PAR team did not know who to deal with. The chairman did not command respect in the three groups, neither did the secretary nor the treasurer. The field officers worked with each group separately, but in theory i.e in the office, they were working in Nyakerato. Working with the chairman, the PAR team organised many meetings which all failed. We gave up. In the last meeting, an elderly woman said *"Don't give us up, you know we are three groups, only one group is represented in this meeting. Allow me to organise my group and come next time and see if you don't meet people."* So was Pacificah Nyatichi allowed to intervene. She organised a very successful meeting, but only had persons from Nyakerato A. So the PAR team started to work with Nyakerato A.

Socio-cultural conflicts

Competition, conflict and rivalry between the Abakione and the Abatabori caused many arguments. No consensus could be reached. Also those having gravity supply and those having not were always at logger heads. This animosity was all unnecessary had the people been educated to communicate with each other. The limitations of technology was a major cause of social misgivings, a thing that is nobody's mistake, but a natural limitation.

Community expectations

The Nyakerato A, B and C communities were expecting an extension of their gravity water supply schemes. Whereas the expectations of Nyakerato A and C were feasible, Nyakerato B expectation to be given gravity lines was technically unattainable. Further education is necessary to help them appreciate the limitations of gravity. This will help to favour the feasible technical options - the shallow wells.

The PAR team did not realise that the community was giving the answers a donor agency would want to hear, while they did nothing to address their needs themselves.

Reception by the community

The Nyakerato community was the slowest in perceiving the need for the PAR project looking into management issues. The PAR team came many times into meetings with no people. Many reasons were advanced, death in the community being the most common, yet their absence was due to reluctance and non coherence of the community. The community was closed, opaque and the management committee lacked credibility as it was all from one family. We often waited for several hours even before the committee members would show up. Yet there was tremendous need for improving the management and involvement of the community. The exchange visit was an eye opener and broke down barriers in this community.

Management aspects

The management aspects had a low profile in Nyakerato, and like in the other four communities men took the lead. Physical improvements were easily acceptable, while leaders were manipulating

everything to their own advantage. The committee was more inclined to be accountable to the donor agency than to the community.

Climate setting

Nyakerato was divided, and had little absorption and assimilation capacity. The leaders from each group blamed the leaders from the other without having the knowledge of the technical limitations. Many community members were not involved in the management and running the water supply. The local administration was aloof while the general community was indifferent. The women only had a passive role. Training of the donor agency focused on the committee, but these persons were not interested in acquiring knowledge to enhance management, they scrambled for leadership positions in order to gain access to tour opportunities offered by the travelling to training venues. The local chiefs had little knowledge, attitude and skills on how to be involved meaningfully without overshadowing the elected committee.

Diagnosis tools used

Focused group discussions and semi-structured interviews were extensively used during general community meetings. Village walk, observation, and village maps were used to identify and understand the community context within which the system operated. Membership was mainly by clans and not by the ability to benefit from the improved water system. Transects were used to map out the gravity pipelines, while the exchange visit provided impetus and motivation for the whole community to get involved in the PAR project.

Where is the community?

The exchange visit in Nyakerato had been organised to visit Nyakerato A, as this was the segment of the community that had agreed to work with the PAR team mainly due to the intervention of an elderly lady, Pacificah Nyatichi. When the Machakos communities visited Nyakerato, the other two Nyakerato B and C questioned why they were left out. An appeal was made to the PAR team to involve them, a request that was allowed. Triangulation was useful tool to enhance listening and verifying issues perception by the various community segments. The PAR team assisted greatly in providing focus on issues. For instance, those who lived on higher ground blamed the committee for not recommending them to get a gravity scheme, a technical impossibility. By use of a household sketch it was shown which families can or cannot be served by gravity. This has resulted in those on higher ground in revived interest to repair their shallow well and have more shallow wells done.

Community agitation

In Nyakerato A the training of treasurers was conducted. The chairman, secretary, treasurer, two Bell Ringers and the area Assistant Chief attended this training. This practical training was most revealing to the Nyakerato A treasurer. He had insisted on being treasurer despite his inability to read or write. The community had elected a new treasurer, yet the old treasurer refused to hand over. Both attended this treasurer's meetings, at the end of which the illiterate treasurer agreed to give office to the new treasurer. The PAR team acted only as a catalyst allowing the decision making process to be vested in the appropriate organ in the community be it chairman, committee or community.

Community sharing

The rope exercise has greatly reduced competition in the communities and enhanced the dialogue to prioritise issues, actions and improvements necessary. In Nyakerato, there is a lot of water, causing an undervaluing of the water resources. However, the exchange visit greatly helped give a challenge to this community. When they visited Sigomere they realised that some options can be expensive to operate e.g. paying monthly electricity bills as the case of Sigomere. While in Kiveetyo, they learnt that the scarce water was wisely utilised to do a tree nursery and some people were farming an orchard.

The local administration of Nyakerato was stimulated when they realised that in Sigomere their counterparts played a significant role in the management of the water system without interfering. The other actors, especially the government departments, are now interested in advising and guiding community management in Nyakerato. In the past, the chairman took all the time trying to convince people on why it was important to get involved, yet he gave them no opportunity to contribute ideas on how to improve the management. Currently, he spends most time in meetings allowing and obtaining views rather than instructing people. This has increased motivation, mutual respect and commitment of the community. Ownership is taking root, operation and maintenance is receiving funds by way of monthly water tariffs. The people have now a view to what the functions of the committee and each of the offices entail, both the roles, obligations and needed skills and attributes. The local Research Assistants (Bell Ringers) in Nyakerato undertook a door to door campaign educating the community on its role, chief of chief is to own, demand accountability and provision of resources for proper running of the water supply.

Coherence

In Nyakerato, the divisions ran so deep that it took the combined efforts of the local administration (District Officers, Nyamarambe and Ogembo Divisions) to put the record straight. The donor agency had assumed too easily that the physical and administrative boundaries could easily be overcome by thinking that Nyakerato was a single community. A general meeting was held, chaired by a high ranking government officer, DO, Nyamarambe and attended by the District Water Engineer, and it was resolved that Nyakerato A, B and C shall each have a separate committee, bank account and constituency. The three will then constitute a central management committee to coordinate issues of common interest. So were born 4 committees in Nyakerato. This was a milestone in the management and organisation of the Nyakerato.

The PAR project encouraged feedback by the trainees to the community. Physical facilities have been provided by the community to the committee. In Nyakerato, the community has realised the need of having a water office, have acquired land and are in the process of building one. Books of accounts, files, writing material, receipt books and safe custody have been provided.

PAR outcomes

Attitude change/recognition of roles: The exchange visit greatly enhanced reflection of the Nyakerato community. Comparing their situation with that of the other communities, the women in Nyakerato are now getting more involved. The community has opened up, is much more cooperative, reflective and acceptive, and they are trying a new management strategy. Ownership is

greatly enhanced, fighting for recognition reduced, while the roles of the office are getting to be understood.

Improved leadership skills: Conflict and fighting is reduced, and people are starting to see the 'common' good. The chairman is taking up challenges in his office, while the illiterate treasurer has allowed another one to take over office after a protracted resistance. The secretary had to accept that he is not equal to the community, a view he had tenaciously held on to.

Improved communication: The attendance in meetings at Nyakerato (combined) has improved significantly as well as in the respective zones (A, B, C). People come to meetings on time and the agenda is sufficiently focused. This aspect has been enhanced due to increased information sharing especially feedback from those who have gone for training. The selection of trainees has been done at the general meetings, thus the community is enabled to demand feedback and accountability from their trainers. Meetings are called by way of invitation by letter and announcements in schools and other strategic places like shopping centres, health clinics, churches or other public gatherings. Information is sufficiently tailored, e.g. a meeting for zone A of B or C combined is made specific to members.

Information sharing between the committee and the community in way of well written minutes and books of accounts are regularly made available to the members through general meetings. The local chief, especially the one of Kiaware sub-location, is actively involved in the running of the water scheme by way of support, advice and sometimes arbitration in the water supply. Whereas in the past leaders kept information to themselves, they now share this with their respective communities, and this has greatly enhanced honesty and reduced lies significantly. The number of community persons who are ignorant of the needs and operations of the water supply in the three zones has reduced significantly. Nyakerato C has more work to do to improve accountability and transparency. The current chairman needs to appreciate more the need for making informed choices by the community not just a handful of supporters.

Better record keeping: Minutes of meetings are kept and confirmed in subsequent meetings. This is enhancing consistency, transparency and a level of knowledge and information in the community. At the same time financial accounting is made more systematic. Attempts have been made to do annual budgets. Auditing of books of accounts is now seen as normal and acceptable.

Dependency diminishing: Implicit obedience and complacency is rapidly diminishing in Nyakerato. People have realised that project funds and assistance is not a favour done to them by extension staff but a voted and budgeted right. They have and demand a right to be informed of what the project is expected to accomplish, materials given to the project as well as their obligations. They now realise that it is not only trenching that is their role but they own the project. Nyakerato A has endeavoured to contribute Kshs. 300 (US\$ 5) per member to contribute to the required capital for extension. Nyakerato (combined) is the only of the four communities that is trying out a management organisation that has autonomous committees, one each for Nyakerato A, B, C and central committee. The community is now demanding that the committees account for what was given to them. Misdeeds especially misappropriation of materials has been cited and dealt with. Those responsible have been identified and cautioned against such future misdemeanours.

Reorganisation of management structure: Nyakerato has been reorganised into three distinct zones. Nyakerato A, B and C. Nyakerato is a gravity serving the eastern slopes of Ibencho, Nyakerato B is a shallow well serving those above the gravity scheme, while Nyakerato C is the second gravity line serving the eastern slopes of Ibencho hill. Each of these have now a separate management committee. A central committee to cover the gravity source up to the first tank was also formed, in order to coordinated the affairs of the gravity that are not specific to each of the lines.

Each of these committees are in the process of developing rules, regulations and their respective constitutions. The Nyakerato A, B and C committees each have a bank account. In its training, the PAR Project laid emphasis in defining and understanding clearly by all community members the need, the role, the responsibilities and obligations of the committee, each of the office bearers, and the whole community as a means of demanding and providing accountability.

Limitations of community management: It is disheartening to note that committees are formed for each improved system in total disregard to any existing traditional sources and inherent management systems. This causes conflict and puts the improved water system at variance with established community water management regimes.

Further, the concept of membership, users and ownership are vaguely determined. Thus in Nyakerato those who are on top of the hill and will never get water from the gravity scheme were elected to the management committee of the gravity scheme simply because they are community persons. Their main agenda was to propagate for a share of the gravity scheme, a matter that is technically impossible. By extension, the interest and functioning of the committee is then half hearted. Also, where the gravity system is possible, people that were elected for the management committee were way out of the feasible area to be served in the near future. Each delegate in the committee therefore had as his first priority not the management of the water scheme but the soliciting for extension to cover his area without any regard to the physical limitation of the system.

Nyakerato and the outside world, among others NETWAS and RDWSSP, have come to a common understanding on clearly delineating roles of each in the community. The DWE, South Kisi, is in support of the community efforts in Nyakerato. The NRG has provided support and in a recent visit, valuable advice was given. It must be stated that management has to address itself to the physical limitations and extend the system to serve the needy cases. For this, PAR needs to address itself and see how to reinforce the donors to bring the systems into Nyakerato.

6.4 Gajedi in Nepal: The community takes up monitoring

A Participatory Action Research (PAR) has been initiated since early 1995 collaboration with IRC (International Water & Sanitation Center), The Netherlands on " **The role of communities in the management of improved rural water supplies in developing countries**" in four rural communities of Nepal. Gajedi is one of the four research sites where various activities have been carried out with PAR volunteers and water user committee (WUC) members.

Brief introduction of the study area

The village selected for the PAR study is Gajedi VDC of Rupandehi district, which is 24 km. west south of Butwal. It is in western development region. Gajedi ward. No. 2 is 4 km. south from east west high way of Dudrakshya part. It has 10 toles (cluster) consisting 251 households. Houses are along the roadside and in cluster.

There are 2 types of settlement patterns. The one is indigenous settlement of Tharu is registered land and another is new settlement by landless people in unregistered lands (Forest area).

Socio-Economic Status

Caste / Ethnic composition of Gajedi ward no. 2 comprises Brahmin, Chhetri, Tharu, Gurung, Magar, Mallah, Kami and Damai. Except the Tharu and few Magars, other caste and ethnic groups are new comers for this village. Except two clusters (Belveria and Bakulgarn) all settlements are in unregistered land. Houses are made of timber & mud with tile roofed.

The main source of income of this ward no. 2 is agriculture. Besides agriculture people earn from livestock, vegetables and daily labour works. Major agricultural productions are rice of wheat. These productions depend on rainwater. Because of this reason, people were repeatedly asking for irrigation water.

There are five primaries, one secondary, one lower secondary & four private boarding schools in the whole Gajedi VDC. But in ward no 2, there is only one primary school. All children (Boys & Girls) send to school for education with out social / cultural discrimination. For secondary educations, they go to Gajedi village, which is about one km from ward no. 2 and Butwal for higher education. All young generation (below 40 years) is literate. Adult literacy programme was implemented by World Education Program through District Education Office. The community built the primary school building. There are 500 student and 7 teachers for the school. Lumbini Rural Water Supply and Sanitation Project (LRWSSP) has been provided VIP latrine and urinals for students and teachers and one hand pump for drinking water.

Health and Sanitation Status

After installation of hand pumps people are using this water for all purposes: such as drinking, cooking, bathing and watering animals. Most of the houses have simple (kachi) pit latrine and few have water seal latrines too. Garbage are collected near the cattleshed, some have pit for garbage was collected in front of cattleshed. Kitchen utensils are cleaned in one place. Wastewater of household and tubewell is drained in the field. Tharu people have their own traditional type of

utensils cleaning place. Some people have grown vegetables by irrigating the wastewater. In some places, small ponds have made for watering cattle near by the pond. Which seems poor sanitation but people expressed that there is no other alternative watering animals. People grow seasonal fruits in their field, no kitchen garden has seen in Belvaria cluster.

Mrs. Geeta Paudyal reported to PAR team in community diagnosis in 1995, "diarrhoea incidence is decreased after installation of the pumps. Since two years no diarrhoea and dysentery epidemic occurred." Murgiya health post and Saljhundi medical hall and Butwal hospital are the institutions where people go for treatment of health problems. LRWSSP trained three women as community health volunteers and provided simple medicine box. When they found one was inactive during follow up visit, they took back one box. Now there are only two women are serving in the village. But both of them are located in the same places Belvariya. It means that other people have less chance to utilize this opportunity.

It was observed that during the community diagnosis, most of the people wash their hands before eating and after defecation. Majorities of them used soap for hand washing but some of them only used water or mud instead of soap. It has also found that bathing everyday in summer and once a week in the winter season by adults and three to four times a week in summer and weekly in the winter by children. Ethnic people (Tharu) have used soil for bathing hair, very few have used soap for washing. After LRWSSP health education program, people learned to use ash and rice husk for hand washing. However, proper disposal of garbage and drainage system needs be improved.

History of the water supply system

There were traditional wells in Tharu village since unknown time. VDC provided one hand pump for new settlements. Some people privately installed tubewells. This water was using by the villagers for all purposes: such as drinking, cooking, washing, bathing, watering animals' etc. It was difficult to get water from far away. Therefore, we are very much grateful with LRWSSP, said by village women. Redcross provided one tubewell, which helped to serve more people. It is 225 ft deep. VDC tubewell was not in function. No body repaired it, because they had enough water from other handpumps.

Some people came to know about LRWSSP through local overseers, who advised them for application and explained about the process. Few active people representing all community wrote an application for water supply project and submitted to DWSO Rupandehi. At the same time, an outbreak of cholera in ward no. one occurred. So that LRWSSP immediately implemented programme in ward 1 and extended to all nine wards. Water Users Committee was formed before the project implementation as per advice of LRWSSP staffs. Before implementation of the project community collected Rs. 500.00/ tap for maintenance fund. They said that one tap served ten houses. Rs 60.00 from each house was collected for maintenance fund and CHV kit box maintenance fund. i.e. Rs. 50.00 for water & 10.00 for CHV's box. So that they collected Rs. 12900.00 and deposited in the Bank with signatures of Chairman and treasurer.

Situation of water supply system before PAR intervention

The situations of water supply system before PAR intervention was poor in Gajedi. However, 24 tubewells were constructed in this ward by LRWSSP but its managerial aspect was totally ignored

by the community people. So, it would be better to point out here the various situations related to water supply system before the PAR intervention.

- ◆ Irregular committee meeting
- ◆ Committee decisions did not inform to the community.
- ◆ Inadequate hand pumps.
- ◆ Inadequate village maintenance worker (VMW) in the village and training was also inadequate.
- ◆ Repairment of broken pumps took long time. (3/4 days).
- ◆ Sandy water in same handpumps.
- ◆ No experienced technicians in the village.
- ◆ There was no registration of constitution of WUC for controlling the community people in a systematic manner.
- ◆ Poor accounting and monitoring system.

PAR - What gained?

Since the establishment of PAR, it has always given more emphasis to the sustainable community management system in rural water supply. Various activities have been carried out with PAR volunteers and water user committee (WUC) members in Gajedi and other community people. The various activities of the PAR has brought change to the community for building up knowledge, skill & other essential activities related to rural water supply management system in Gajedi. The changing situations about the rural water supply management system should be better to mention here as the respectively.

Fund collection and mobilization on the regular basis

Fund collection work is going smoothly on the regular basis from all the community members. Rs. 14978 deposited fund all the community members. Rs. 14978 deposited fund, which was collected from each tubewell, kept in the bank. The interests of the deposited fund spend on the maintenance of the tubewell. Except those deposited fund, Rs. 11976 collected from each household in charge of water on the regular monthly basis. This money has mobilized to the community members on the cheaper interest rate for maintaining their household needs.

Water user's committee organized

From the PAR activities, the community members became more aware to their role on the rural water supply & management system. So, they reorganized water user's committee from which all the community activities can be conducted in a systematic way on the regular basis. The committee members are more active than before and they are representing from each existing tap and tole. The water user's committee meeting is being conducted on the regular basis after the PAR intervention. All the decisions of the meetings minutes on the register and other important things such as accounting & monitoring activities keep in records on the regular basis shows that the committee members are more aware on importance of documentation.

More women involvement in community development

The PAR activities with the community members is more effective than before in term of more women actively involvement in community development. From the various activities, women of Gajedi became more aware to their role in the community development and they start to participate

actively in community works. They participate in meetings and keep their views towards the programs and also actively participate in the program implementation.

Initiation of systematic monitoring and evaluation system

The community members understood about the importance of monitoring & evaluation system of the community activities. They felt need of systematic monitoring & evaluation system through the different types of meetings & exchange visits with PAR team. They know that the program's successes depend upon the systematic monitoring and evaluation system. Thus, they initiate the systematic monitoring and evaluation system through the regular follow up visits of the program by the committee members and also through the discussions and meeting on the regular basis. In this way PAR activity with the community members has the vital role to initiate the systematic monitoring and evaluation system in the community activities.

Strengthen on Management Capacity

To strengthen the community management in drinking water supply of four PAR communities, PAR team has been providing support to PAR volunteers and water user committee members through training & workshops. In relation to these different training on group management, leadership development and accounting etc were organized for water users' committee of Gajedi community. From such types of training, committee members and PAR volunteers have succeeded to know about community action plan for further implementation of problem solving strategies. More over all the committee members are able to understand the PAR process, which are the most fruitful things for the community members for implementation of the programs. All these are most fruitful for community members to build up management capacity to sustain programme in progressive manner. The process of PAR are as given below:

- Community diagnosis or identification of the problems.
- Analysis of the problems.
- Prioritization of the problem for solutions.
- Development of the problem solving strategies (PSS).
- Experimentation of appropriate problem solving strategies.

Constitutionalized of water supply system

The one of the major outcome of Gajedi; water users' committee is constitutionlized. They think that it will be very fruitful to control the community members in a systematic way and they also hope that it will be a good line for the future programs conducted by community members. With out constitution, committee members used to face various obstacles during the implementation phase for mobilizing the community members in systematic management. Now this committee is able to conduct different types of community development and public welfare works.

Technical Solutions

Only focusing on management aspects may not be always effective for sustainable and regular water supply system. If the community people are able to solve the management as well as technical problems regarding on water supply system, then we can say that this is the well- managed community on water supply system. So the development worker need to observe not only management aspects but also technical too.

Regarding the situation of Gajedi , there are 18 maintenance workers in the community. Four maintenance workers were trained by FINIDA during water supply construction phase. Similarly, fourteen persons were trained by NEWAH in the system improvement activities. NEWAH also provided toolbox to four maintenance workers of four additional tubewells. These trained maintenance workers are able to repair the simple and above ground level technical problems. If they have problems in under ground, they are coordinate / contact to mason of neighboring village Surapura. During system improvement, they were contact with mason of Suryapura and constructed the four additional tubewells. On the other hand, the process of registration of constitution of WUC (what they are doing) shows that we can trust to the villagers, if they have under ground problems they will be able to contact with other organization for technical support.

Lessons Learned

- The decision of the majority community people has the major role in the community development. To conduct any types of social activities in the community, all the community people should be included on the proportional basis.
- Both female and male participation has the equal role to carryout social activities related to community development. More over, it would be better to give more emphasis to the isolated community people (minority group/ ethnic group) for involving in the executive board of the committee to achieve the goal easily within the limited time bound.
- Helping each other can able to do everything.
- If one committee member becomes selfish cannot able to do work/ achieve the goal or one should not be selfish to do group work.
- Each individual is equally important to solve the group problem.
- Any types of community works should be done on priority basis.
- Committee people should have the major role to guide their group in right track.
- Social conscious has the vital role to mobilize the local resources.
- By over loading one person with responsibilities, community cannot attain desired result.

Future strategies of the community

Various successful experiments on the rural water supply system management, Gajedi community people have become more enthusiastic to carry out other social activities on the systematically. They have made future strategies of the community as the following:

- ◆ Improvement of management system & dissemination of finding to the neighboring village as a model.
- ◆ They are planning for conducting the irrigation projects.

- ◆ They are planning for promoting sanitation program.
- ◆ They are planning for registered the constitution of community forestry.
- ◆ They are planning to extend water supply system to the needy area within community.

Conclusions

Most of the projects, which are not considering sustainability, risk in planning stage. So most of the programs are not sustainable due to the poor management. Thus PAR projects try to minimize the sustainability risk through the community management. Community management has played the vital role to sustain the program, other wise the investment will not be worth in infrastructure development.

6.5 The story of Yanthooko in Kenya: Enforcing management skills

Historical Perspective

Traditionally the people of Yanthooko get their water from dry river beds. Each family scooped a hole in the river bed into which water seeped from the surrounding sand. These water holes were sometimes deep, over 3 meters especially during the prolonged drought. When rains came these holes were filled with sand. Separate holes were made for drawing water for domestic use and a separate one for draining water for animals (livestock).

Geography of the Area

Yanthooko is 150 kilometres east of Nairobi, 10 Km off the tarmac Machakos- Kitui road, turning left at Makutano on to the murrum road, leading to Mavala market. Yanthooko has Kivandini as its shopping centre. The area is generally flat sloping gently eastward. The water source is the dry river beds where water is obtained by scooping shallow holes in the sand to collect water. Pigeon peas, beans and maize are the main food crops, while mangoes, pawpaws are common.

Socio-cultural background

The predominant tribe here are the Akamba. The language is Kikamba. The community is very receptive of new ideas and is very cohesive. Yanthooko village has two women groups. The St. Martha women group with whom the PAR Team has been working and the Itibo group.

History of the Project

The St. Martha, Yanthooko has received assistance to build a shallow well equipped with a hand pump through the Catholic Diocese, Machakos. Also the Sida funded programme through the Ministry of Health, Environmental Health Department has assisted the group with rainwater harvesting tanks, improved cooking stoves, VIP latrines, washing slabs and bathrooms at the shallow well. Despite these efforts, Yanthooko village experiences acute water shortages during the dry spell. Further, the group had no rules, regulations and constitution.

Physical Facilities

The main focus for the St. Martha, Yanthooko is general development. In the water sector they have a shallow well equipped with a hand pump. The well is located in the banks of a dry river bed. Some 10 meters away on the opposite side of the river bank is the Itibo group. It is interesting to note that while St. Martha shallow well has sweet water, the Itibo group shallow well gives salty water. Individual households were supported by Sida programme to construct VIP, ferro-cement tanks and water jars. Improved cooking stoves were also introduced in this village but due to the expense the idea was not popular. At the shallow well washing slabs and bathrooms were built. As mentioned earlier the ***** of the well reduces during the dry period occasioning long queues for which reason the group is planning to do a second well or identify a gravity scheme from the hills on the western end of the village.

Community Attitude

The St. Martha women group are an active women group, eager and ready to try new innovations. This explains why they have received assistance for the shallow well, water jars, VIP latrines and ferro-cement tanks.

However, the group has not formulate guidelines, and procedures for operations. At the same time, the group is highly inclined to dependency, even on issues they can handle themselves. For example, the group had planned to buy a plot on which to build an IGA and an office. The total estimated cost Kshs. 26,000 only. The PAR Team noticed that every time it came to the community, meals worth 2500 were served, which means that only 10 visitors were enough for this community to spend an equivalent of their plot. Whereas there is nothing wrong with entertaining visitors, there is everything wrong with spending on visitors without contributing to the group's main objective of establishing an income generating project from their own resources and hoping against hope that a visitor will one day come who will provide them with money to buy the plot. The PAR discussed this anomaly with the group and agreed that on a monthly basis each member will contribute Kshs. 20 towards the purchase of the plot and with 6 months enough funds had been raised to pay for the plot. Plans are underway to construct a house and install a poshomill on the plot. It is a worthwhile to note that entertaining visitors is one way by which the group members maintain group contact and dynamism. The group had difficulties assimilating the abstract concept of PAR project and were more comfortable in continued expectation of physical assistance to date this has not abated.

The PAR Team

Despite the slow assimilation of the abstract concept of management in especially PAR into management, the PAR Team patiently guided the group into accepting to work with this research project. The community was receptive and willing to learn and work together with the PAR Team. The gender balance in the PAR Team was positive contribution to the PAR Team being accepted by this women group. It also made it easier for the PAR Team to participate in the activities of the women group like singing, serving means and occasionally working with members on their own household chores like ploughing with oxen. In Yanthooko the whole group has clearly defined membership criteria. There are 32 members consisting of 27 women and 5 men chosen by the women group based on their ability to work with the women in the group and especially in counselling and guiding and supporting. In this group, due to clarification it was easier to work with and involve the whole group with certainty.

St. Martha is very cohesive and active. It has been able to attract some donors and it is easier to work with the whole group due to its clearly defined membership

Community expectations

The group expected that PAR was a donor to assist with physical development, a notion they still hold and hope that one day it will be true, a hope that is likely to be a big disappointment despite frequent awareness that PAR was not designed for physical development. The group has completed purchase of a plot on which to develop an income generating project, while at the same time plans have been drawn to do a second shallow well.

Reception by the community

The St. Martha group has had previous exposure to receiving visitors. For this reason the women group has a set of uniform for such occasions which *** distinguishable. Much singing and dancing accompanies the warm welcome that visitors receive as the women will usually meet the visitor some distance from their village and accompany them homeward, to Yanthooko. The same is done, as they usually escort visitors with singing and dancing. However, due to his gaiety it takes much longer to get to discussing real issues with the group. They extend their hospitality too far to denying themselves an opportunity to benefit from holding meaningful discussions with their visitors.

Management issues

Management as an aspect is narrowed down to mean the presence of a committee, thus much emphasis is placed on physical assistance. The management committee is assessed against how much external support it has attracted to the group. However, with time other aspects of management were introduced and are taking root as important issues that require attention.

Climate setting

Like in all the other four communities, the communities had the agenda of physical improvements, while PAR was primarily concerned with the role of community in the management of the water systems. It took several meetings, introducing in manageable doses aspects that relate to management and showing how management should concern itself not only with O&M but also in planning and expecting physical expansions of the water systems. In Yanthooko, a construction of another well. With time consent was obtained from the community in order to work together to study and improve the managerial aspects of water systems. The local administration was not involved in the management of the water supply.

Diagnosing and tools used

The village walk, village map, transects, semi structured interviews, pairwise ranking were used in Yanthooko. Triangulation was used to verify and prioritise issues. Group discussions were especially favoured by the women group.

Where is the community

During exchange visits, village maps were drawn and discussed. By explaining to their peers, the Yanthooko group discovered the limitations of their shallow well as well as management aspects. Triangulation was done by posing the same questions, obtaining and sharing responses with other groups. This was particularly helpful and the various segments of the community received feedback from the other community segments, thus helping develop a common perspective and obtaining consensus. The PAR Team stimulated issues and helped retain focus.

Community agitation (things brought in)

Entertainment is a darling of the St. Martha, Yanthooko. Much money is spent on entertaining visitors, while virtually forgetting contributions for group development. The PAR Team has assisted the group balance out this, that is while entertaining visitors should not be overlooked, development should be continued. In par Project contributed matching funds to the entertainment while

encouraging group members to contribute monthly Kshs. 20 toward the purchase of their plot, and endeavour that has yielded good fruits.

The group members received training especially on the challenges, duties, roles, responsibilities, attributes and requirements of each of the organs and the offices. The roles of the committee versus those of the community were outlined and discussed. Ownership, provision of resources belong to the community, while accountability is the prerogative of the management committee.

Community shaking (things coming out)

In Yanthooko, the group has reduced entertainment expenses and have contributed to the purchase of their plot. The rope exercise showed the community the need for dialogue and unity. The local research assistants (bell ringers) have provided useful support to the office bearers especially to the secretary and the treasurer. The group members now appreciate the need to contribute ideas to the management of the water supply. One major need is a second shallow well.

Coherence (people settling down)

The group is still speculating on how to address low water yield during the dry season. The local administration has taken interest in this women group due to the intervention of the PAR project. The PAR team placed emphasis on building local partnerships where the water committees were encouraged to seek the involvement of the local Chiefs. In Yanthooko, the group has developed guidelines (constitution) stipulating the roles, duties, responsibilities and obligations of each of segments of the community including the local administration. This is giving new life to meaningful involvement of all the various actors involved. The members have pledged renewed commitment and are contributing resources to develop an income generating project and also develop a second shallow well to increase water availability.

Reflection on the process

To encourage a community learning process, trainees or course participants were selected by the whole group. Providing feedback to the whole group was inbuilt into the training process, thus information/knowledge obtained by the trainees was shared with the community (whole group). Emphasis was placed not on training but on learning practical skills necessary to undertake a particular function in the management of the water supply and enhancing group dynamics. Each trainee was encouraged to do their role, while also supporting the functioning of the other office bearers/members in order to build confidence, trust and synergy. Meetings were used often to share the new knowledge. The PAR team followed up on the minutes from such meetings and did random semi-structured interviews to check on the level of sharing and interaction between the trainees and the general group members. The group provided physical facilities like books of accounts, writing materials, receipt books and safe custody for the group items.

Attitude change/recognition of roles

Communities view external institution as potential donors. Despite the many statements and assurances that the PAR project is not intended for physical improvements, but to help the four communities reflect and take appropriate action to improve their management, the St. Martha, Yanthooko Women Group still expect to receive substantial support for physical improvements namely, the building of a second shallow well.

The external exchange visits have greatly enhanced the spirit of ownership in Yanthooko and are now contributing resources to develop a second shallow well as well as increase financial stability. Of the four communities, the Yanthooko group is receptive, reflective, accepting and cooperative in working with the PAR team. They take new challenges and new ideas find a willing reflective group, who try out new things. The group is accepting that management function is as important as physical improvements and development requires a partnership approach, where each party understands and takes up the challenges in the respective roles. The women in the Yanthooko Women Group are waking up to raise required resources to fulfil their dreams. They require support.

Improved leadership skills

Whereas in the past, the Chairlady looked to external support, she now sees that raising internal resources is equally important. She places emphasis on dual approach external support and internal resources mobilisation. The treasurer who in the past was shy in fulfilling the demands of the office of the treasurer, has taken up the challenge, keeping and sharing records with members. This has enhanced confidence and members are contributing money willingly. The Secretary now keeps minutes of meetings and shares this with the relevant organs. Meetings are called by way of letters, and agenda is clearly defined, this shortening meeting time. This has greatly improved attendance of meetings. One aspect that the Secretary needs to improve on is the ability to give public address (speaking in public). Leaders in Yanthooko are working as a team and seeing the common good as a goal to strive towards.

Improved communication

Trainees are selected by the whole group. Thus accountability and transparency is enhanced. Feedback by trainees is sought. Records are available to members on request and regular sharing of information has become a common practice as opposed to the past where leaders kept information to themselves. This was mainly because leaders saw themselves as accountable to the ESA and not to the community members.

Better record keeping

In the past records were poorly kept and shared. The accounts were not audited. In Yanthooko only one person kept both financial and secretary's records as the women shied away from this responsibility, mainly because they felt insecure accounting to the superiors from the ESA. Now, knowing that their primary accountability is to the local community who are not highly learned as themselves, the secretary and the treasurer have accepted their challenge. Practical skills were provided through PAR training.

Members records have been updated, instituted, resource management enhanced and time spent in meetings greatly reduced. The agenda for meetings has been streamlined, while transparency and accountability has been enhanced. Records are made available to any member on request, especially those that pertain to that particular member, this has enhanced confidence and trust among the members.

Dependency diminishing

In Yanthooko, the women group have taken steps to raise internal resources to build a second shallow well. Whereas in the past, the women group entertained visitors in the vain hope of attracting support, they now draw up agenda for discussion with visitors on meaningful way.

Reorganisation of management structures

The Yanthooko Group have reviewed their constitution, discussed it with the members for approval. Further, the group now works in accordance to the approved rules and regulations, making monitoring, and accountability much easier. The roles and responsibility have been sufficiently delineated in respect to the committee and the community.

Only in Yanthooko, does one find a clear definition of users and members. Members have the right to management positions which is not open to all the users. Further members have shares, while users do not have.

Limitations of community management

Yanthooko Women Group has 32 members, made up of 27 women and 5 men, operating and owning one shallow well. In terms of human resource input, 32 persons running one shallow well is uneconomical. Further the physical limitations hinder equitable distribution. In Yanthooko, shallow wells are possible only along the dry river bed, thus cannot be distributed openly in the whole village. During the dry period there is water scarcity occasioning long queries. In all the four communities the by-laws/constitution to guide management were limited to the implementation phase. This is further limited due to the fact that the community groups are not legal entities and cannot enforce their rules, regulations and constitutions if they do not incorporate and invoke the Local Chief's Act. Interference by those not involved in the water project is common, but with the involvement of the Local Chief this can be sorted out.

Yanthooko and the outside world (partnership/networking): Initial support for Yanthooko was provided by the Catholic Diocese of Machakos to develop one shallow well. Further support was provided by the Ministry of Health, Environmental Health Programme to do water jars, ferro-cement tanks, ventilated improved latrines and improved cooking stoves. The PAR project has assisted in defining management and expected roles of each of the parties both internal and external. Sharing of experience has been done through the NRG and due to its proximity to Nairobi, Yanthooko has served as a community 'example' where PAR is working. Many visitors have visited Yanthooko, including the PAR teams from IRC, PAR and other external institutions. In collaboration with ACTS, Yanthooko participated in a study on traditional resource management and governance.

Supportive mechanisms

Yanthooko Women Group needs support to increase water availability in the village. The communities are now taking lead in the management of the water system, while the local administration is providing the necessary support. In NETWAS experiences gained will be shared through training courses and other fora.

PRA tools and limitations

The PRA tools help identify problems but do not sufficiently assist in internal resource mobilisation. The tools yield information used externally, without sufficient creation of partnerships.

Chapter 7: Sparkling ideas in community management of water supply systems

7.1 Nyen and Mbemi in Cameroon: A fountain as symbol for the new water supply system

Nyen water supply system is one of the community's systems that is well designed and constructed. With a number of standpipes and many private connections, it serves two villages, namely Nyen and Mbemi.

Not only is the system large, it also has features which are not common for most community water supply systems. As part of the system you will find an office, a spare parts store, a public shower and toilet, a fountain, and a market fountain.

How these features are managed is what we are going to discuss in this chapter. However, we are evaluating the system. This is just a description of what we found and how the system is being used.

The system management office

We know that management requires an office. In villages, this is usually the palace, the president's house, or a special room in a community house or center. A house that is constructed solely for a water supply system is not common, but this is what we found for the Nyen and Mbemi water supply system.

The system's office is constructed just below the storage tank. The whole construction is placed underground to keep the water cool. Trees are also planted around it to maintain the cool temperature. Almost every document concerning the system is kept in this office.

Among the documents contained in the office is a large hard cover ledger used as visitor's book. This book was used from the onset of the water supply system. It is divided into two parts, one for visitors' signatures and the other half as a summary record of financial contributions.

The main users of the office are the caretakers and the maintenance committee president. The current caretaker was trained by the previous one. In fact, the handing over from the previous caretaker to the current one has been very gradual and systematic through training on the job, working together, handing over responsibilities and supervision, which is the last step. This process has taken more than two years. The current caretaker now is capable of handling the office.

The spare parts store

The building is sectioned into two with a spare parts store just next to the office. Here you will find shelves stocked with sample parts and spares for system maintenance. In the event of a problem like a damaged valve or tap, a spare is immediately picked from this store for replacement.

The spares are bought whenever the committee has collected some money. Some are supplied as gift from donors who visit the store. Helvetas has donated more parts than any other donor. Plant International is another supporter of this well managed store

In addition to the spare parts, there are tools for system maintenance. Every tool acquired for any service on the system is kept here. Nobody is allowed to use the tool for personal use. Most of the tools were acquired during the training of the first caretaker. This was in the SATA (Swiss Association for Technical Assistance) Programme. The organisation is now known as Helvetas.

The caretakers who were formerly being paid by the Government are now left to the communities to support. The communities are now seeing this as an additional burden to the system management. The current caretaker is no longer as committed as the first one. He is young and devoted but has to live as well. Since the community members are not contributing as really expected, this young man's spirit has gone, but because of respect he does the basic services at his convenience. The young man does not deserve any blame. This problem is just coming up and the committee will have to use its experience acquired from the PAR project to deal with it.

As a means of sharing experiences, an exchange visit to Nyen and Mbemi system by the management committee members of Nkouondja village was organised during the PAR process. The visitors were amazed by the store, especially by the way in which the variety of spare parts were stocked and its advantages as the host community explained to them. Immediately upon return, the Nkouondja System Management Committee used the money already collected and bought pipes for the catchment which was still under study. The major advantage they got was that it avoided misuse of the money which is now in the form of material.

Public shower and toilet

I must admit that in nearly every Cameroonian town or city you will not hear of and let alone see a public toilet, not to talk of a public shower. Here is Nyen, a village not very far from the divisional capital with a shower and a toilet meant for the public. These facilities are in the same building as the system office.

Just behind the office is a public toilet. The entrance is at the rear of the building. This is probably to provide some privacy as the building is close to the road. This is important in these communities, because people do not want to be noticed when going to the toilet. In fact, most villagers will hardly ask openly for such places. The usual way is to ask from innocent children.

When we visited this toilet, the site was dirty and bushy indicating a complete out of use state. "Why this situation, Chairman?" we asked the maintenance committee chairman. He looked around and sighed. With a deep breath of disappointment, he explained.

When this system was constructed, the engineers had a good idea and we put so much effort in it. Since this house was near to the market we thought that this would serve people who have travelled from far-off villages. This way, they will not use the back yards of our compounds to defecate. We then added a shower which would enable them clean up themselves to enjoy the market. These services functioned well when the former caretaker, Mr. John Munih, was in charge and was paid

by the Government. In those days there were even sanitary officers who come to inspect before and after market days.

When the Government stopped paying and eventually Mr. John Munuh retired, the village could no longer take full responsibility. However, when the sanitary officers were working we tried to maintain them. As this service was also dissolved by the state, nobody could really follow up the maintenance. In fact, many things have negatively changed in this country. Even the system we are trying to manage now was not really as it was before. The Department of CD was in charge and it was only in 1994 that Helvetas came and created the management committee.

With this disappointing explanation, the chairman promised that the committee would sit to look at how these services could be revived.

Community experimentation

Experimentation is one of the phases in the PAR field research. What we discuss here is not a result of the PAR project but due to intervention by Helvetas. A fountain with four taps is at the center of the market in Nyen village. This tap is used intensively on market days and always broke within six months. This has been a problem to the committee which sought the advice of Helvetas before PAR came into the village.

Helvetas then made a special request to Switzerland for a tap head which the committee bought at 12,000 FCFA. This is about three times more expensive than the ordinary taps found in the market. The committee bought two and installed them on the fountain. They also bought the common ones and installed those as well.

From their verbal report, the common taps got damaged not long after they were installed but for about three years now the Swiss made are still in place. Asking what they think about the cost, it was no doubt in their mind that the tap is worth the cost. Fast enough, they made a mathematical calculation and showed that they would have bought six common taps costing 24,000 FCFA which is twice what they got from Helvetas. Being cautious with these taps, they have removed one and stored it to replace the current one if it eventually breaks down.

Ask anybody in Nyen and they will tell you that the tap at Tad Market is the best in the world. They have trusted this tap and believe in it. What is left now may be to replace all the taps in the rest of the village. This could be quite expensive but it is not yet their priority.

The palace fountain

At the center of the Nyen palace field is a community hall called the MECUDA (Meta Cultural and Development Association) hall. There is a church and a school besides the hall. At the other end is a beautifully constructed concrete structure with an open ended pipe in the middle.

During our stay in this village, we moved around this structure, and sat on it for chats or conversations. Little did I border to know what it was until during one visit of the National Reference Group in September 1996.

As a gesture of satisfaction by the visit of these important people to the village, the former caretaker instructed the trainee to rush and bring the fountain head from the famous store. This was fitted as the visitors stood around discussing. Suddenly water began splashing everywhere. You should have seen the laughter and running around. The chairman then made his speech and said it is a shower of blessing from Nyen. The former caretaker further demonstrated with other heads that change the shape of the shower from the fountain.

CRTV, the national radio and television cooperation was recording the events daily on video. The PAR team was interviewed besides the fountain. This was then broadcasted on the national television two days later, and everybody was amazed to see such a fountain in a village.

The fountain is a symbol of completion of the Nyen water supply system. As we were told, something significant had to be constructed for the inauguration of the Nyen Water Supply. The idea of a fountain was first proposed by the caretaker. Since many villagers did not know the importance of a fountain, they had to turn off the proposal. Being a technician in the project, the caretaker insisted on the idea. When the project was completed and tested for the inauguration day all the villagers were moved. A song was composed and sung on the inauguration day. The song goes like "*Nyen water comes from the Fountain. Those who drink it have a longer life*". This song is sung on important days related to the water supply system.

7.2 Compoalegre in Colombia: Local watershed management to ensure a sufficient water supply

"It was in February 1996 when we all met up, the leaders of Campoalegre, the CINARA Group and the other institutions of Health and Public Works (Emcali) in Mr Juan Carlos Gonzalez' house, who is the president of the water system and we began by playing a game called Tingo Tango where we all introduced ourselves, laughing and showing interest. Then, we concentrated on the problem of the water which we are still working on after a year and a half and we have advanced a lot."

Edgar Guevara, community leader of Campoalegre

The community

"Another problem is population growth if there is no control,...we know that we have water for two hours a day, but if people keep coming there won't be enough water for them or for us" Nelson Suarez, Treasurer of the Neighbourhood Committee.

The village of Campoalegre is situated in land which once belonged to the Chavez and Guerrero families and was founded in the 1950s, when these families divided up the property and sold off some plots. Later, the Chavez family sold part of the land to the stone-crushing Company *El Chocho*⁹. This activated the urbanisation process in the area and various families began to settle in the areas near the company. Most of these were workers who were employed by the company.

"When the stone-crushing company began, we worked with picks and many of the families who came to live in Campoalegre worked in this. Initially, there were about six families."
Virgelina Ramirez, owner of some of the land in Campoalegre.

However, together with this, there are other factors which have contributed to the growth and consolidation of the village population. First of all, this area has been part of the migratory process in Colombia, which has mainly increased from the 1950s onwards. "The high rates of rural migration led to new housing and public services requirements in the cities; due to the lack of state help, many of the migrants took to illegally occupying abandoned areas of land and started spontaneous, clandestine settlements."¹⁰ Secondly, the recent catastrophes which happened in the Pacific coast area and the agrarian crisis have also contributed to the growth of Campoalegre. One example of this is the sector called the Nariño Colony.

Another aspect that has characterised the population development of the sector is the arrival of some families who want to own a spacious country-style house, in a quiet area which is not far from the city. A more recent development is the migration of Cali residents who have chosen to live in this area because the prices of rent and basic services are cheaper than in Cali. The proximity to the city centre (only 15 minutes away) and good transport facilities have also attracted new residents.

⁹ Company concerned with the extraction and crushing of stones to be used later as construction material.

¹⁰ Londoño B. Rocio, 1996

"I like this area very much, it's very cheap to live here and it's a very nice place because it's quiet, has a good climate and is quite near the place where I work...I can also go by motorbike. I used to live in an apartment and then I came here...There's no comparison between this apartment and this huge house." Fernando Rios. President of the Neighbourhood Committee.

However, it is important to point out that the population of this village has very different characteristics to other growth areas in the informal city in the foothills. The rate of growth has been relatively slow, due to the degree of control exercised by groups of residents and bodies, such as the Secretariat of Municipal Health in its role as controller of the Water Supply Administrative Board, who try to prevent the sale of land, as they are conscious of the limitations of the water supply. We came across signs describing the situation as in the following, *"Don't buy land or start building, there is no water. Acusalud, Campoalegre"*.

It is evident that there are large areas of land in the village, which could be built on, but which have been left untouched for these reasons. Most of the inhabitants work in Cali as manual workers, employees or as casual sellers. There are also a smaller number who work in the surrounding poultry farms.

The water system

"We are here in 'Quebrada los Ataudes'. We went behind Mr Carlos' house and... there is a problem in the de-sanding tank which has no cover. There is also a problem in one of the pipes which has lost its supports and... From here we go on to Tranquilandia where we have another problem, because they take out an inch and a half of water which they use for a swimming pool and we haven't been able to get them to return the water. Then, there is a piece which goes up which we call a viaduct... then we come to the mines. We have had to strengthen the aqueduct here, in any case, we still have a problem here, as when this breaks down we will come to disturb these people... We go on to Montebello and we have a further problem, as there are a lot of leaks, so the water is not getting through as it used to do. What we call leaks is really unauthorised use of water, from Piamonte to Tranquilandia they take off a large amount of water." This is how Mr Arnulfo Morera described the Campoalegre water supply to the rest of the community in a participatory workshop, after examining the whole water system in the diagnostic phase of the project.

Unauthorised connections

One of the most delicate problems the village inhabitants have with the water supply is related to unauthorised connections which lead to the fraudulent loss of most of the volume of water which is carried by the transportation pipes to the storage tank in the area. The continuous development of new settlements near Campoalegre has resulted in great social pressure on water access. Only Campoalegre and Montebello have their own water supply. The other areas have forced connections to these two systems.

In the case of Campoalegre, this has now become serious because of the lack of water volume and the large number of new users who require the service in the village. In the stretch of piping from the reservoir near Campoalegre there are more than 150 illegal connections for a large number of families from other communities. The Campoalegre Water System Administration Board has come

up with various solutions to this problem, one of which is to change the whole pipeline design and to use galvanised piping. This would involve leaving the other communities without water.

Another alternative was to ask the Police Inspector to enforce the law and to make people respect the rights of the inhabitants of Campoalegre. A third alternative was to negotiate with the other communities to legalise the situation, including the administration of the system, and to ask them to pay the monthly fee. This idea was not accepted by the inhabitants of Campoalegre as it meant that they would not be able to improve their service and extend it to those who were waiting for a connection. The lack of water in Campoalegre caused such a crisis that the president and the other board members were forced to resign. A new Water System Administration Board was set up with a commitment to improving the service, which has not proved possible up to now.

It is true that there was strong pressure from the new settlements to be connected to the Campoalegre water system, but there was also a lot of complacency and carelessness on the part of the directors of the administration of the service in Campoalegre. For this reason, once this problem was recognised, it had to be faced using various arguments to prevent what could well happen in the future. One strong, valid argument was the need to respect the water concession authorised by the 'Corporación Autónoma Regional del Valle del Cauca'(C.V.C.)¹¹, followed by joint actions by all the communities which have benefited, to get the municipal authorities to widen the water system and to convert it into a regional project or the creation of another system for the new settlements.

"Within the village there is the problem that people get connected without registering, or other people get water. They sell land and with the same registration they transfer water". This was what Nivis Hernandez, Village Health Official said about the problem.

In 1988 when the water system was built, there were 120 users registered from the community and in 1996 there were 336 users, with a population of 1,344 inhabitants. This means that in 8 years the user population has almost tripled, but there has not been any improvements or major extensions of the system.

In Campoalegre there have been three stages in the management of the water supply, which have all been marked by a crisis. The first had to do with the initial settlement when there was little infrastructure because the land was abandoned. The community organised the building of individual solutions for each family or small group of families. The second corresponded to the time when the water supply in the area dried up or was too contaminated for human use. This led to the construction of the present water system with water from nearby sources. The third crisis surfaced when the community was facing a new water shortage, but this was complicated by a regional water dispute with other neighbouring settlements which had developed in a disorganised fashion and had used the same water supply.

The association of water system users - An alternative solution to the problem

At the present time, the problem of water does not only concern Campoalegre, with the solution at regional level, as there are various settlements which are claiming this scarce resource which in this

¹¹ An institution one of whose functions is to protect, look after and manage the water resource at Departmental level.

region comes from 'La Quebrada El Chocho' which supplies water for the villages of Montebello, Golondrinas, Las Palmas, Piamonte, Limones, La Paz, etc.

One more holistic solution to the problem is the proposal of the President of the Water System Administration Board of Campoalegre to create an Association of Users of 'Quebrada El Chocho' to buy the land around the water basin area, reforest it and conserve it in an integrated manner.

"The lack of control of the water sources is a serious problem, as before when we had water 24 hours a day there were 7 water sources in the high part of the stream. At the moment we only have two hours a day of water and there are 3 or 4 sources in the private property of Mr Alcides Salamanca, who is not interested in reforesting. Recently, we had a reforestation day in 'La Quebrada El Chocho' and the next day they pulled up all the trees. The man wants to develop the property, not reforest it." Juan Carlos Gonzalez, President of the Water System Administration Board.

Another proposal from the Team of Community Researchers (T.C.R.) within the community to contribute to the conservation of the water resource was the setting up of a communal nursery to begin a reforestation programme. Although this led to the participation of the community, the problem continued because the water basin was in private property.

"The problem is not only a problem for Campoalegre, it involves 7 other communities who get water from 'El Chocho' and together we can negotiate," says Juan Carlos González together with Nelson Suarez, who met with the most important authorities and leaders of the 7 communities and officials of the 4 institutions¹² which were responsible for the management and development of the natural water resource, in order to legalise the Association and to have access to institutional support. In addition, the aim was to come to an agreement with the property owners about a programme which guarantees water production for human consumption. In this way, the Managing Group was set up which was responsible for legalising the Association, which currently entitles them to financial support from State institutions and N.G.O.s for programmes to improve the water basin.

Management of the treatment plant

In order to be able to write about the history and events which have happened in the community, it is necessary to observe and refer to the daily life of community members, This is the case of Mr Edgar Guevara, a traditional community leader who in his youth was National Boxing champion. He has worked for the community on various projects, such as those to do with electrical energy and telephone lines. At present, he is carrying out various actions to do with the construction of the treatment plant and the rehabilitation of the water supply system, which is a priority of the E.I.C. He, along with other users, is responsible for this project. Thanks to his political party involvement, he was able to write to the President of Colombia about this problem and received an answer subsequently. In a similar fashion, he has requested help from the local authorities for the technical development of the project.

During the last two years the development of the project in the community has led to the creation of a new style of accepted water management, which has encouraged community leaders to seek

¹² The 4 institutions were : C.V.C., Cinara, Procuentas and the Secretariat for Community Development.

solutions by means of a more proposal-orientated approach, involving such mechanisms as the development and the presentation of projects instead of the usual clientelistic practices. However, these new discourses have led to resistance in view of the old methods of obtaining resources by community leaders.

In relation to this point, it is perhaps important to note how the community has been able to prioritise its problems in a participative, democratic manner and has been able to develop different types of solutions, which have been of great benefit to the whole community. *"I work for everyone, without political or religious distinction"*, says Mr Guevara, when he talks about what he has done.

Administration of the system

Leadership styles

The rural communities in our country have reached a certain level of development in relation to the carrying out of projects and the obtaining public services due, to a great extent, to the efforts of their leaders, both jointly and individually, in their negotiations with State organisations with the help of local and regional political leaders.

The traditional political actors consider water management as one of their various interests, but not necessarily their main concern. They are also interested in the active participation of the community mainly as a source of votes as a form of recompense for the "help" provided. Currently clientelist practices have not been sufficient to procure the necessary financial resources to be able to provide the community with public services and the necessary community equipment. Campoalegre has been no exception to the rule. The people remember how, thanks to the intervention of a State Senator, they were able to build the water supply system in 1986.

The Water System Administration Board has been set up in recent years to supervise the administration and operation of the system by leaders who belong to different traditional political groups in the region. These had a positive influence in the development of other projects, such as road surfacing, the installation of electrical energy, the telephone service, the Multifunctional or Communal Centre, among others.

With the arrival of new inhabitants in Campoalegre in the last few years, there appeared a small group of professional people (culture, drama, sports) who showed interest and enthusiasm to work in the development of the local area. They tried to introduce novel proposals, one of which had to do with encouraging levels of community participation in relation to water issues with a predominance of civil leadership and without the influence of the traditional political groups.

Juan Carlos González and Fernando Ríos were elected directors of the Water System Administration Board and the Communal Board, respectively. They were thus able to create a series of projects and activities to do with water supply, which they saw as a priority area, as well as other adult training activities, courses for women and sports events.

The former leaders helped the Boards in this new enterprise, and were particularly vigilant as they wished to prevent changes in the proposals which were presented. Possibly the desire to accomplish a lot in a short time, the lack of experience of work in these types of Boards and all the difficulties

associated with the water supply prevented Juan Carlos and Fernando from delivering the results quickly and in the end the community began to express doubts. Other causes which have been analysed show that they acted in isolation and that the organisations that they had created and supported were weak and very new, such as the youth and sports committees, or attempts to set up ecological organisations. Furthermore, these new leaders were overactive and this often created problems with the traditional routines of community participation, which led to increasing discontent with their proposals.

The individualistic style of the leaders or of the small groups is perhaps one of the reasons why there has not been a co-ordinated action in favour of the community and consequently they have not identified with these projects and public services. "*There will always be someone who will do it for us*" or "*This is an obligation of the State*" are phrases which are commonly heard.

"We need a campaign so that the community will identify with the water system. We suggest consciousness-raising campaigns so that people will begin to feel that the water system is theirs," Fernando Rios said. "*The smuggling of water out of the village affects the administration of the water system,*" Eduardo Rueda, the water supply plumber said.

The Water System Administration Board has an office for the administration of the water supply, which is open to the public in the communal building. "*We need a vision of business management, but now the present Board is showing a great deal of interest. They are talking about a shop which would sell all the parts necessary for the water system and which would also allow the community to buy plumbing elements which would mean some income for the water system administration,*" Juan Carlos González. However, the lack of clarity in the definition of participative policies has been the cause of disputes between leaders who hold modernising management views and those with traditional ideas.

Community participation

Community participation is created as an essential process for the development of public property as it "has an educational function, it develops a neighbourhood civic consciousness, it strengthens the ties of solidarity and makes the ideas of general interest more understandable and acceptable."¹³

If the community by means of its participation understands the problems that affect it and the causes of these problems, this may help to support the administration of the water system, going beyond the role of simple user or client, helping to supply some needs by the use of different practices, for example, collaborating in the planning and construction of the projects; being more receptive to the educational programmes designed to stimulate the good use of water in the home; caring for system installations, reporting breakdowns in the different parts of the system; being involved in the administration of the water supply, etc.

This is the reason that Fernando Rios one of the new leaders and member of the E.I.C., teacher and actor is eager to promote other areas of community work and to project a type of social participation through such programmes as: reforestation using community nurseries; the promotion of education through a programme of night-time study; the carrying out of sports activities with young people and children; and the organisation of groups for senior citizens. He got the children involved in

¹³ Borda, Jordi. Participation for what? Revista Foro, September, 1986.

specific activities within the water project. *"The water problem cannot be limited to the Water Board or to the leaders ; it has to be opened up to everyone and children can develop a civic consciousness more easily than adults. We could say that community participation is the umbrella which covers other manifestations of participation,"* Fernando Rios said when he was adapting a workshop on the programme "Water-culture" for children.

The workshops with children were organised with the Secretariat of Municipal Health, which had the necessary methodology and tools to carry them out. Thus, children and adolescents painted and made drawings of water use, storage, where the water comes from, how to take care of it and its characteristics. They then went out to talk to the people in their houses, who were very surprised and grateful for their visits.

Another working strategy used during the community management project was the decentralisation of the meetings which used to be held regularly in the Community Room in the upper part of the locality, because people from the lower part found it difficult to get there. For this reason, it was agreed to have community management project meetings in each area, either in a house or in the shop, so that everyone would have the opportunity to find out the information and to participate.

During the workshop on community exchange to evaluate the project process,¹⁴ Fernando Rios stated, *"Apart from the importance of the research, this participative project has been useful to establish that there are other forms of water management. The participation of everyone during the diagnostic process in the establishing of problems and needs has made the group conscious of the need to change the ways of intervention which are out of date. We have also seen other ways of prioritising problems and of finding alternative solutions. The workshops telling the rest of the community about the advances of the project were successful because they mean different ways of meeting up. Finally, with the training we noticed that there are other ways to establish contact and to get into contact with other people both within the community as well as with the water sector officials and with other communities who are developing similar experiences."*

External agents

'El Chocho' Stone-crushing Company

"I consider that 'El Chocho' have helped me. There are people like Fernando who don't like this company. They criticise it because it is damaging the environment. I agree with this and I am very concerned about ecology, but if I need them they will always help me out with the water supply. They lend me material, if the Board doesn't have any money at that moment and later I pay them back. At such times, you have to be practical". Juan Carlos González.

The company 'Triturados El Chocho', one of the sources of employment which exists in the community for the extraction of stone to be used in the construction industry, is an important actor when we are analysing community management in Campoalegre, because of its role in the development of the population and later in relation to the water system. This company is one of the main factors which has helped in the consolidation of this locality, *"to a certain extent, Campoalegre is the daughter of the company"*.

¹⁴ Workshop on community exchange in which participated the community teams from La Sirena, Ceylán and Campoalegre, who evaluated the process of the community management project.

The relationship Community-Company has become closer as the company has developed various different roles, such as local company, manpower employer, user of the water system, donor (of materials for community projects), and supplier of aid (for urgent cases of breakdowns in the water supply). Moreover, in the person of Nelson Suarez its administrator, it has participated in the Water Supply Administration Board (at various times), in the Neighbourhood Action Board and the Local Administration Board.¹⁵

However, this relationship is not conflict-free, as although it has been the “protector” of the community, it has also caused and is still causing serious environmental damage. The exploitation of quarries has extended over a large area and has affected the soil as well as the vegetation, and various streams which start in these areas have disappeared.

The above situation allows for a clearer interpretation of the reasons for the relationships which have developed in this account. We find that for the company, the good functioning of the water system is vitally important for its activities, as it depends on this, and has 5 registrations. It is cheaper for them to use this water than the water from the Cali water system. Good relations with the community contribute to fewer possible confrontations due to the damage caused to the environment. In addition, some actions (donations) have resulted in the extension of their working relationships with the community, where various of their employees live. There have even been benefits in the political sphere, through the participation in the Water System Administration Board of the company administrator.

¹⁵ Local Administration Boards. Organisms of community participation set up legally, based on territorial divisions called 'Coomunes' at urban level and districts in the rural sector.