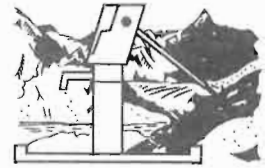




WATER, ENVIRONMENT AND MANAGEMENT

Two ends of the Decade

Bhum Bahadur Giri



THE DECADE AND KALIRAHA

The world was eagerly waiting to celebrate the water supply and sanitation decade. Meanwhile, below the snowy roof of the Himalaya, like many other villages, Yamgha, Chappani and Darlam Danda were doing their best to decorate their respective villages with the garland of a water system from the only two potential sources - namely Kaliraha and Ribdi.

Because of lack of experience there were many problems. The first problem encountered was a source dispute; many times the catchment tanks built in the day time were damaged by the opposition group at night. Some people involved in this were jailed for two months. The police were called to the site, and they stayed there for 6 months to protect the construction work. Similarly, it was difficult to attain good community participation. Villagers found it difficult to reach to a common conclusion about how things should be done. It took a considerable length of time to complete the system. They had to change three water committee chairmen during the construction period. When Tej Narayan

Koirala, the existing water committee chairman, finished the last task - to put the maintenance fund in the bank in the name of Kaliraha water system, - the world had already stepped off from the other end of the decade.

The chairman's view

"In the beginning we thought that this project belonged to UMN (United Mission to Nepal) and that it would take care of this system forever. Later from experience we realized that this was not true, but at that time we were not capable of taking care of it on our own. So we planned to ask the district government office to take it over. That did not work either, and that was the reason why the maintenance fund stayed in your office for a long time without gaining interest"

"Now we think that this system belongs to us, and we have to manage it ourselves. It took us ten years to realize this truth! We are gradually learning how things should be done. It might please you to hear that we have done some maintenance work on Ribdi source recently".



"Why do you think that even for development work there are conflicts in the villages"?

Mr. Tej says in reply to this question "It is because of politics, especially in those areas where some individuals try to take advantage of development work, so losing trust with other members of the community. In some cases people are jealous of what others are getting and try to make conflicts grow. These political people have no respect for other groups and try to use development work for political purposes. The previous chairman of this water system was that type of person, trying to take advantage. People did not trust him. The trend should be from political benefit to developmental benefit and individual benefit. Wherever the trend is opposite, that is a potential area of conflict. That is, if someone uses development work for political benefit, and political benefit for individual benefit, conflict will surely occur. By the way, the previous chairman got the gold medal".

He added in reply to another question ".... .. it is better to start from a small system, a simple system, and instead of being too ambitious, to be realistic. Make as many people as possible participate in decision making and discussion. The leader must be patient, unselfish and full of courage to listen to the community. He must not be autocratic, just ordering people to do this or that. He should not give up, even in a bad situation. People should be encouraged to recognize those leaders who are guided by selfish aims. In the initial stages, villagers do not understand the situation; therefore the project must take more initiative to patiently convince them that the project will bear fruit, and that it is possible for the users to own it themselves. Time will teach everyone what to do and how. The project should not depend only on a few leaders. The general rule is that whoever talks the most is more likely to get benefit, whereas the poorest people have no voice to reach you. You must come down and listen to them too.

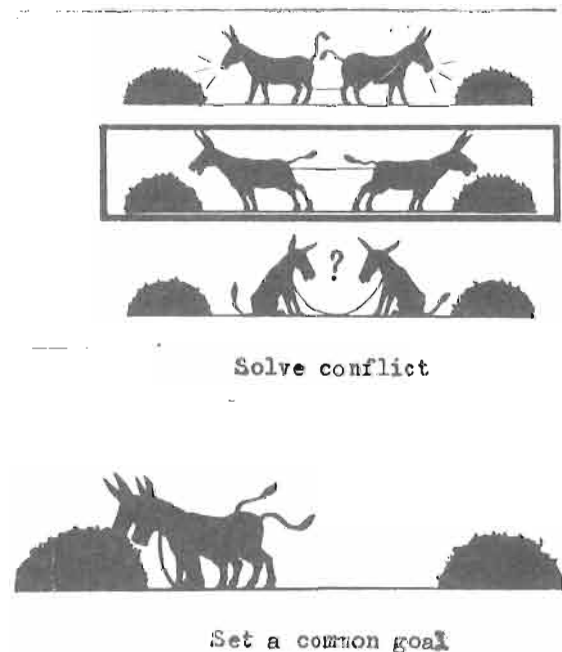
BEL DANDA WATER SYSTEM

No less ambitious than the people of Kaliraha are the people of Bel Danda, whose water system emerged from the other end of the decade incorporating most of the experience gained from many water systems completed during the decade.

Achieving a common goal

The community came to the project with an application signed by all the households of that system, confirming that everybody was motivated toward achieving a common goal. The following dry season the project staff paid a visit to find out whether the scheme was

feasible or not. Potential water source were investigated with the help of the villagers to insure the availability of good quality water to meet their daily requirements. Observations were also made about how cooperative the community were among themselves and with outsiders. Actual events were observed as evidence of co-operation. For instance they had succeeded in building an irrigation canal and a school with not only their own co-operative effort but also with the help of other surrounding villages. Many village members gave up their farm work to help in the survey of potential water sources; this was an indicator of how they would co-operate with outsiders. The issue of water rights was also tackled properly from the very beginning.



Participatory planning

Project staff paid another visit to proceed with a mass meeting organized to help the villagers participate in the whole process. They were encouraged to find solutions among themselves. They were also given authority to decide where to install which component of the system i.e. where to build the reservoir, which way the pipe line should go and the very sensitive issue of where to install the water taps. They also took part in measuring the distance and the heights of various points. The completed design was brought back to the community to make critical comments and make final changes. There was already a development committee in existence, and this was utilized as a water committee rather than forming a separate one.

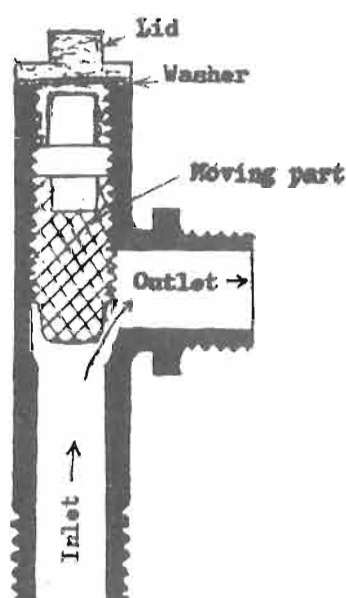
Project and villagers agreement

Before beginning the construction work an agreement was made whereby the project agreed

to provide materials not available locally such as cement, pipe, fittings, rebars etc. it also agreed to provide technical expertise, and to train two maintenance-men for further maintenance work. The community agreed to contribute voluntary labor for digging trenches, foundations for structures, collecting and carrying sand, and breaking and carrying stones. They also agreed to choose two maintenance-men to be trained, and to dig a trench one meter deep to bury the pipe. A maintenance fund was also established by raising money from every household.

Care in design

Care was taken to minimize the number of fittings such as valves, tees and valve covers. The function of the valve below the inlet chamber was made redundant by opening the washout plug, thus eliminating the valve (a potential breaking part). The control valves of the stand post were replaced by a device called a ferrule. The cover of that device was eliminated as it was noted that in many other villages the cover itself was subject to damage by the villagers. Instead the ferrule was buried under the soil after proper control.



A ferrule (for sustainability)

Integrated programme

Bel Danda village is also trying to make progress in other ways. Health care is one of them: caring children under five, pregnant women and adults, putting more emphasis on prevention. As the literacy rate was low a non formal education programme was also commenced to increase the people's awareness. All the

inhabitants of this village are farmers who are trying to gain better understanding about modern agricultural science, adopting new varieties of seed and understanding how to care for their animals. They are also growing green vegetables. So in this way each component supports the other to help village develop.

General assessment

Recently, the author paid a visit to this village, where he found that it had left other villages far behind in term of self reliance. Even though it was the driest season of the year all taps were functioning properly. He also observed women washing clothes at the taps and bathing their children. In reply to his question a woman said "Now we are fully satisfied; we and our children can take a bath regularly, and we also grow green vegetables using this water". Which shows the impact. On many occasions in other villages it was regrettably observed that the community lacked the courage to punish someone found guilty of doing harmful things. Amazingly here, this self reliant community have already punished a person from a nearby village who was found guilty of damaging the cover of the water source catchment chamber.

"We have trained five people. The project trained two, and we ourselves trained the other three. We know how to make washers locally; we cut a 'chapple' round and make a hole in it to replace the damaged one". (Chapples are slippers, which are usually not even allowed to enter the kitchen, but here they are being put in the bib-cock, a glimpse of cultural change to meet the new situation).

Furthermore the committee chairman was voluntarily providing counselling services to other villages about how to progress. He was called by other villages to explain about the water system and its problems, and he was very keen to do this. According to him his village was indebted to other communities for lessons learned from them, and he is now trying to pay back that debt by providing counseling services to the neighboring villages.

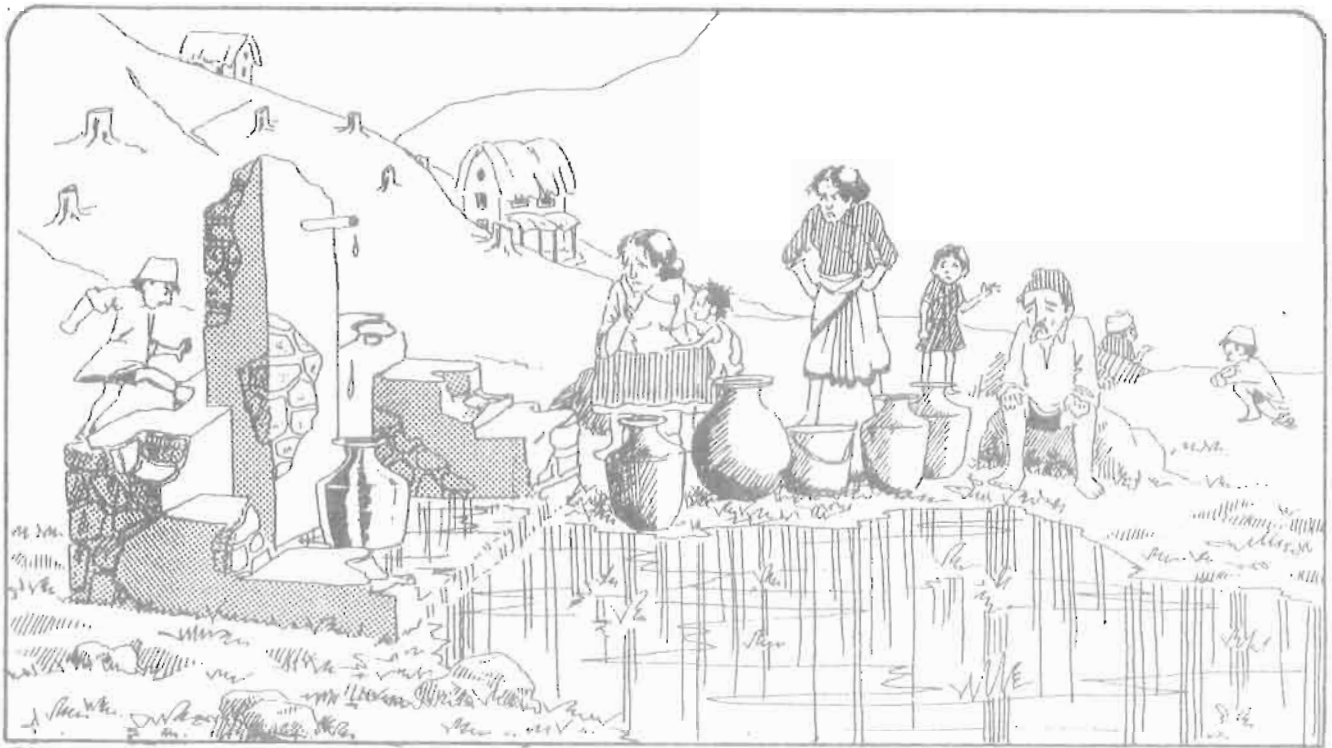
ISSUE OF SUSTAINABILITY

There is still a large proportion of the people longing for a reliable and potable water system to be installed near to their villages. This is not because nothing has been done between the two ends of the decade, but because things have been done wrongly.

Some observations

Chilangdhi village received a system which was completed using outside money through a contractor. People were paid for digging the trenches too. But the result! On the inauguration day, to which the water resource

How many of our water systems are sustainable ?



minister was also invited as a chief guest, the people had to carry water in a can from a well.

In a project in Gorkha district 48 systems out of 50 were not functioning; this caused the project to stop installing new systems rather than to repair the old one. Similarly in another area the personnel in charge of a Save the Children Fund project explained that they have severe problems in 40% of the previously built water systems. They are now not doing new systems.

In Dhading district the people claim that 75% of the pipes have been either stolen or burnt by villagers travelling at night.

In Ramechhap district, this is what happened when the villagers called a meeting to arrange the collection of lost pipe. It was decided that if any pipe was found in someone's house he would be punished. The next morning a pile of cut pipe pieces was found in a gorge near to the village it had been cut into 72 pieces; the longest one was only 1.5 meter.

In many districts, the fund available for development work is divided in equal parts between all village development committees whether or not they need it or can properly utilize it. As the strong felt need is for water, the villagers want to use their fund

for water systems but it is not enough even for the smallest system. Some villages made a good effort to collect a sum of money to pay for uncovered materials, but still the majority of the systems have failed. The pipes are not buried. In many villages we could see the HDPE pipes hanging from the trees. Most of the pipes have been cut in many pieces in order to collect water at every points.

Time to pause

The author has seen very few systems which are running properly. This might be a time to pause and look broadly at all the donors, the implementers whether government or non-government organizations, and the middle organizations, to see what has been done in the past, and in the light of that to make a new strategy before planning new systems.

Pressure from the politicians

One day a colleague working in a SATA project explained to the author that a politician wanted him to sign a paper accepting that a project was completed in a certain village. He added that since the project was not completed, and most of the materials had not even reached the village, how could he sign the paper? We can guess how hard it might have been for him not to sign the paper. Is it not shameful that the professionals have to follow the politicians instead of following Newton's Law and Manning's formulae?