
CARE/Nepal's Experience in Developing Irrigation Systems in Nepal

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Executive Summary

There are thousands of farmer-managed irrigation systems in Nepal; some of them have been in operation for centuries. The Department of Irrigation (DOI) is responsible for developing larger irrigation projects. It cannot provide assistance in developing minor systems due to resource constraints. However, the area irrigated by farmer-managed systems is more than the DOI operated systems. Therefore, there is a high potential for developing farmer-managed systems to meet the increasing food grain shortage in Nepal. The assistance and cooperation of the INGOs, NGOs, government agencies and communities to promote smaller farmer-managed systems is of critical importance.

CARE/N has been involved in the development of medium and small scale irrigation systems in the rural communities since 1983. It has experience in working with different government agencies to improve irrigation systems in different geographical locations of Nepal. The objective of this paper is to highlight some of the major issues and problems that are normally being faced and lessons learned in the collaborative efforts.

We hope that it will be some use in developing irrigation systems through the joint efforts of INGOs, NGOs, the Government and communities.

Background

CARE/N is a Non-profit, Non-governmental International Organization which has been involved in the development of Nepal since the agreement made with His Majesty's Government in 1978. CARE/N started its activities by focusing on strengthening the health care in hospitals and health posts. This was achieved by graduating and providing in-service training for nurses. It was later felt that infrastructure development in Nepal had high potential to help the poor. CARE/N started building suspended or suspension bridges since 1981. It was realized that more than 90% of Nepal's population rely on agriculture. With a view to increase the agriculture productivity and thereby uplift the living standard of the people, CARE/N expanded its activities in promoting the farmer-managed irrigation systems in 1983.

CARE/N signed an agreement with Agriculture Development Bank, Nepal (ADB/N) in 1983 to assist and promote the small farmers' irrigation systems within the SFDP working areas in eastern, central and western region (8 out of 14 zones) under Small Farmer Community Project (SFCP)

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program. To make the best and long lasting use of irrigation systems, agriculture and agro-forestry activities were launched side by side in the project areas. Under this SFCP program, 33 irrigation systems were rehabilitated in the east, central and western regions and 13 in Rapti zone by end of 1989. The SFCP program in east, central and western regions was terminated in 1989 but is still continuing in Rapti zone. An additional 9 irrigation systems have been undertaken under ADB/N and CARE/N collaboration from 1989 upto June 92.

In SFCP projects, cost sharing was based on 50% contribution from CARE/N in the form of materials, tools, equipment and transportation cost of these materials upto the project site, whereas the remaining 50% was borne by communities in terms of up to 30% ADB/N loan for payment of skilled labor and local material transportation and 20% as voluntary labor. The working policy was later revised because it was found that people normally tended to inflate their contribution so that they could obtain cash adjustment from CARE/N. According to the new policy, CARE/N has to provide imported materials as per the demand of the project and in turn community has to provide all local materials and voluntary labor. On average, CARE/N contributes 60% of the total project cost and 40% is borne by the communities. In addition to the physical assistance, ADB/N provides site overseers while CARE/N provides engineers.

CARE/N is gradually expanding its activities in both remote and non-remote areas with different counterparts. The Natural Resource Management Project (NRMP) which is a collaboration between CARE/N and SSNCC is implementing irrigation and drinking water projects in Mahottari and Mustang districts. Remote Area Basic Need Project (RABNP) is operating in Bajura, Gorkha and Solukhumbu as a joint effort between Remote Area Development Committee (RADC) and CARE/N. Similarly, projects in Kaski Begnas Tal Rupa Tal (BTRT) and Syangja districts are an undertaking between Department of Soil Conservation and Water Management (DSCWM) and CARE/N for watershed management and soil conservation. In all projects, irrigation is the important component to promote community irrigation systems.

CARE/N has been involved in the development of irrigation projects with different counterparts for 10 years and has had the following experiences:

- a) From ADB/N-CARE/N collaboration: It has always been easy to work with agencies which have grass roots level network. Since SFDP is an ADB/N field level office, both SFDP group organizer (GO) and people know each other better and it is more convenient to communicate with communities through GO who plays a mediator's role between communities, CARE/N and ADB/N.
- b) If communities are bound to contribute a certain percent of cash in addition to their voluntary labor, it should be carefully considered in the beginning as to how poor people can contribute cash, as the cash flow situation in a village is always restricted. It may result in delay of construction work and perhaps in some cases, rich people will take undue advantage of the poor. This problem was not experienced with ADB/N since SFDP had to provide a loan to the small farmers' group whenever required.
- c) Agreement should be made on a realistic basis, considering the availability of material resources as well as human resources since it was found to assignment of staff, especially, overseers was difficult.

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- d) It was felt that the staff from different agencies working at same level in the project had different salary scales. The staff getting a low salary became discouraged and inefficient which hampers the implementation of irrigation systems.
 - e) While working with ADB/N, irrigation activities should not be confined within SFDP areas because there are high irrigation potential sites outside the SFDP boundaries.
 - f) In the context of ADB/N and CARE/N collaboration, some farmers were unwilling to take an ADB/N loan as required by the ADB/N policy. It would be better if there is some flexibility in the policy which would avoid such situation. In some cases farmers are able to pay cash and do not require a full loan.
 - g) Many agencies prefer working in non-remote areas where there is accessibility for vehicles. This should be seriously considered by the government and agencies should be encouraged to work in needy remote areas with high irrigation potential.
 - h) In some cases, more than one INGO or NGO were working in the same area resulting in duplication and overlapping of activities. This may have a negative effect on the relationship between the donor agencies. This is even more crucial if different subsidy rates are effective. In such situations, people start bargaining and may create conflict between donor agencies. Such situations must be avoided.
 - i) It was found that communication, coordination and cooperation (3Cs) between INGOs or NGOs are sometimes lacking and need to be maintained in a healthy atmosphere. j)
Sharing of experience among the INGOs and NGOs through seminars or workshops should be held from time to time to develop cooperation and co-ordination.
 - k) Community people should be involved in all stages of work. Their opinions and suggestions should be given due weight during designing, planning and implementation of projects. It not only heightens their morale but also stimulates their active participation in the project.
 - l) People find it easy to operate and maintain a system if indigenous technologies and local resources are used as much as possible, rather than copying a theoretically based sophisticated design.
 - m) Trainings should be not only an incentive for staff, but also help to upgrade their calibre and capability. This enhances their efficiency and effectiveness in work. It should be regarded as a part of the project.
 - n) Unless people are well motivated and the objectives of intervention made clear to them, there will lukewarm participation. Therefore, awareness building and generation of "ownership" feeling should be emphasized right from the beginning.
 - o) People have a tendency to get more and more from the donors thus eroding their self-help attitude. To check this tendency of dependence, there should be very clear guidelines as to how much each party has to contribute. There should not be any provision of cash adjustment since people will tend to inflate their contribution.

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- p) Farmers having small landholding normally contribute more labor than big farmers, and no adjustment is made for contributing more voluntary labor. Some mechanism needs to be developed in favor of the small farmers.
 - q) Rich farmers tend to exploit the share croppers by forcing them into voluntary labor contribution. Hence, certain measures should be developed to check such a tendency.
 - r) Rich farmers or influential people usually hold important positions in the committees and tend to take undue advantage of their position. This issue should be seriously considered during formation of committee and small farmers should be encouraged to take better/fuller participation in such committees.
 - s) Physical improvement and system management are two sides of the same issue. Both should be equally emphasized. But in many cases system management is given less priority. Most of the host agencies prioritized system completion even though the result is an ineffective system.
 - t) It is difficult to organize people for longer period projects especially if it involves more than one community, as people's participation gradually reduces with time.
 - u) Construction work is easier in clustered and homogeneous communities.
 - v) Projects commonly suffer from social conflicts especially in the issue of water rights when the same source is being used by many communities. In such cases, consent of all communities is necessary to smoothly start the projects.
 - w) In cases of projects receiving external inputs, the project life or agreement should be for a minimum of 5 years. Shorter time periods will not be sufficient for effective planning and implementation of any, but, the smallest irrigation systems.
 - x) Irrigation projects are meant to increase the agriculture productivity and this is not possible until improved varieties of seeds and technologies are used. Extension services play a vital role to meet this objective and need to be emphasized right from the initiation of an irrigation project.

Today the meaning of development is incomplete without the concept of integrated approach. For instance, for a more effective working of an irrigation project, preservation of forests and afforestation, soil conservation in the catchment area and provision of extension services in the command area, should all be highly emphasized. However, in reality, it is not possible to achieve all this through one agency or organization. It calls for the cooperation, communication and co-ordination among all involved organizations. Their joint efforts in the multi-faceted development field are essential.