

PROJECT COMPLETION REPORT

Irrigation Management Transfer Project

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ABBREVIATION

| | |
|------------|--|
| DOI | Department of Irrigation |
| DIO | District Irrigation Office |
| WUA | Water User Association |
| MC | Main Committee |
| BC | Branch Committee |
| TC | Tertiary Committee |
| EC | Executive Committee |
| CP | Chairperson |
| VC | Vice Chairperson |
| TR | Treasurer |
| SEC | Secretary |
| CMWF | Canal Management Workforce |
| IMTP | Irrigation Management Transfer Project |
| ISF | Irrigation Service Fee |
| MF | Membership Fee |
| AO | Association Organizer |
| COP | Canal Operation Plan |
| CMP | Canal Maintenance Plan |
| VDC | Village Development Committee |
| DADC | District Agriculture Development Committee |
| DADO | District Agriculture Development Officer |
| ICDA | Institutional and Community Development Assistant |
| WMS | Women Social Mobilizer |
| TA | Technical Assistants |
| USAID | United States Agency for International Development |
| RITI-APTEC | RITI & APTEC Consultancy P. Ltd. |

SECTION I: PROJECT PLAN AND ACHIEVEMENT

A. BACKGROUND OF THE PROJECT

The Irrigation Management Transfer Project (IMTP) was started in Nepal in June 1995 as a follow – up program of Irrigation Management Program (IMP), which was USAID/N funded Project introduced in 1885 for the first time with the goal to improve Irrigation Management performance of the country.

The IMTP is a joint undertaking of HMG/N, USAID/N ADB and users of the command area. The USAID/N has provided the TA support to enhance WUA's capability to undertake the responsibility for managing public Irrigation system.

Out of 67000 ha of total command area of the project, it was found only 32000 ha (47%) under irrigation before the project. At the end of the project it was expected that 50,000 ha will be irrigated at the end of the Project benefiting the poor farmers. Most of the beneficiaries are small-scale farmers who live below the poverty line. About 57 per cent of the people in the project area are poor. The average per capita income in the project area ranges from NRs 1,706 (\$34) to NRs 5,084 (\$102) per year, well below the poverty line of \$150 per person per year. These low income farmers are the target beneficiaries of the project. The project ends in June 2003.

Objectives of IMTP

The objectives of IMTP are to (i) develop, refine and institutionalize the process and strategies for transferring O&M/or ownership of public irrigation schemes and (ii) transfer the O&M and/or ownership of 11 public irrigation schemes to farmer – beneficiaries, in accordance with their capacity to mobilize local resources. These objectives will contribute to the Government's goals of improving irrigation system performance, increasing agricultural production and farm incomes, generating employment, and reducing the incidence of poverty and the Government's O&M budgetary requirement.

The IMTP has two important components to be implemented:

- I. Establishment of 14 sustainable and effective Water Users Associations (WUAs) through formal and informal training courses; and
- II. Rehabilitation and improvement of irrigation and drainage facilities in about 67,800 ha, including emergency maintenance and flood damage repair, essential structural maintenance, catch-up maintenance, system improvement works, system calibration, improvement of canal service roads and farm-to-market roads, and repair and procurement of equipment and vehicles.

Project Coverage

The project consists of 11 sub projects, which are located in five development regions of Nepal (see map in Annex 1). The total command area measures 67,800 ha. The IMTP phase I included

four sub-projects [i.e. Khageri (3900 ha), Panchakanya (600 ha), West Gandak (10,300 ha) and Pathraiya (1,800 ha), while the IMTP phase II covers additional six sub-projects [i.e. Banganga (6,100 ha), Mohana (3,500), Manusmara I&II (5200 ha), Hardinath East and West (2,000 ha), Kamala East and West (25,000 ha) and Chandra canal (8,700 ha)]. The IMTP phase – 1 project management have been already transferred to respective WUAs.

Technical Assistance

Although, the DOI commenced IMTP in June 1995, the TA team was not fielded until June 1996. During IMTP Phase I, the USA based firm, Computer Assisted Development Inc. in association with a local firm, APTEC Consultancy (P) Ltd. was involved in providing TA support to the project until May 2000. During IMTP Phase I, some initial institutional development activities of WUAs were also initiated in IMTP Phase II sub-projects. Currently, the IMTP Phase II sub-projects are at different stages of program implementation.

B. OBSERVED CONSTRAINTS IN IMTP PHASE - II SUB-PROJECTS

The observed constraints can be attributed to two agencies: (a) WUA, and (b) DoI. The constraints related to both the WUA and DoI are summarized below:

WUA Related Constraints

- a. There existed a clear lack of technical as well as institutional capability among the executives of WUAs. This had resulted in low performance of WUAs in terms of leadership function, office operation, system management, resource management and participatory program activities. This was true for all six IMTP Phase II sub-projects.
- b. Due to limited skills and technical support, efficient canal O & M activities were to be materialized. There prevailed an unorganized and unsystematic water distribution practices in the projects. Several important activities such as the development of COP, CMP, system calibration and water flow measurement had not been initiated in the IMTP Phase II sub-projects.
- c. The WUAs had to learn and develop appropriate approaches and strategies for collecting MF and ISF. Except Manusmara sub-project where the collection rate had reached a level of 40% other sub-projects lagged far behind. This poor scenario of MF and ISF collection rate had threatened the ability of WUAs to carryout canal O & M activities sustainably.
- d. The women members of WUAs were often isolated and their participation was marginalized. Women representation and participation was poor, especially in Kamala, Banganga and Manusmara sub-projects. If timely intervention to address low representation and participation of women in WUAs and irrigation management activities had not been carried out, their participation was likely to drop down significantly.
- e. Also, there was a poor network and linkages between the WUAs, and the government bodies (i.e VDCs, Municipalities and DDC) and district line agencies (e.g., DADO and ADB/N). These institutions had the potential to provide additional technical support, including the

post-project support activities that were critical for the long-term sustainability of the WUAs. For example, the local government bodies could play a critical role in supporting the WUAs in collecting ISF, the DADO in delivery improved agricultural technologies, and ADB/N in loan provisioning. If the network and linkages between these institutions were not strengthened, much of the potential impact of IMTP program would be lost.

DOI Related Constraints

- a. The frequent transfer of DOI staff from IMTP project to other projects caused delay in project implementation. The newly transferred staffs were not adequately informed about the IMTP project approach, strategy and procedures. This had led to frequent conflicts between DOI staff and WUAs regarding decision-making processes, including their roles and responsibilities.
- b. The Human Resource Development Training Branch (HRDTB) under the DOI had inadequate capacity to conduct the needed IMTP field trainings. It had limited trainers to carry out field trainings and it also lacked adequate and quality training materials. The limited capability of HRDTB had considerable implications in terms of accomplishing the planned training activities at the sub-project level.
- c. The IMTP program did not cover the post-project support activities, and the DOI did not sanction any budget for post-project support to WUAs. The legal status of WUAs, especially their authority to collect ISF was not explicit in the Irrigation Act 2000. If these problems were not addressed, the canal O & M activities to be continued by the WUAs would not be sustained in the longer-term, both institutionally and financially.

C. AGREEMENT WITH USAID

In order to address the above constraints, CARE/N and RITI-APTEC jointly entered into a cooperative agreement with USAID Nepal, RITI-APTEC being the sub grantee, on June 15, 2001. The main focus of this agreed upon project was to strengthen the initial institutional and technical capability of water user organization within 15.5 months period starting from June 15, 2001 to September 30, 2002 meeting the requirement of on going IMTP, WUA capability development activities. The project was further extended for one and half month until November 15, 2002 on request of CARE Nepal.

Project purpose and objectives

The project purpose was to strengthen the initial institutional and technical capabilities of WUAs of phase II, IMTP projects so that WUA with this increased initial capabilities would support on-going IMTP activities, contribute to collecting Irrigation Service Fee /Membership Fee (ISF/MF), start taking over branch canals and initiate canal maintenance and operation activities. Once WUA start performing irrigation operation and maintenance task the goal to increase household income by increasing agricultural production would be supported.

In order to meet above purpose the project under contract formulated the specific objectives, strategies and activities which are briefly described below:

a. Specific objectives #1: Planning and Conducting Specific Institutional and Technical Training (SITT)

For developing initial capacity of WUA executives in organizational process management, technical knowledge development and also attitude development on women participation, four categories of trainings: a) Conflict Resolution Training b) O&M Training c) Leadership Development Training d) Gender Awareness Trainings, were implemented. Before implementing these trainings, WUA executives at first were professionally classified based on the WUA job as follows:

- Chairperson – Responsible for leading the organization, planning program and making decisions
- Vice chairperson – Responsible for resolving irrigation conflicts
- Secretary/Treasurers – Keeping all types of organizational records, arranging meetings and corresponding the decisions made by chairperson.
- Canal Management Work Force (CMWF) – Responsible for operating the branch canal, tertiary canal and mobilizing branch committees for appropriate decision making on water distribution. The progress made to meet this specific objective is shown in table – 1

Table – 1: SITT Training

| Sub projects | Conflict Res. Training | | | O&M Training | | | Leadership Training | | | Gender Awareness Training | | |
|------------------|------------------------|------------|------------|----------------------|------------|------------|---------------------|------------|------------|---------------------------|------------|------------|
| | Participants | Pl | Pr | Participants | Pl | Pr | Participants | Pl | Pr | Participants | Pl | Pr |
| Chandra Canal | VC of MC, BC and TC | 147 | 135 +79 | CMWF of MC and BC | 24 | 29 | - | 25 | 27 | Members of MC, BC and TC | 70 | 90 |
| Kamala (E+W) | VC of MC, BC and TC | 131 | 121 | CMWF of MC and BC | 44 | 55 | - | | | - | - | 240 |
| Hardinath (E+W) | VC of MC, BC and TC | 38 | 55 | CMWF of MC and BC | 38 | 56 | - | | | Members of BC and TC | 60 | 70 |
| Manusmara (I&II) | VC of MC, BC and TC | 66 | 60 | CMWF of TC | 128 | 121 25 | - | | 25 | - | | |
| Banganga | VC of MC, BC and TC | 82 | 36 | CMWF of MC and BC/TC | 24 | 28 | CP and VC | 37 | 60 | Members of BC and TC | 50 | 60 |
| Mohana | VC of MC, BC and TC | 86 | 104 | CMWF of MC and BC | 10 | 48 | CP and VC | 86 | 62 | Members of BC and TC | 83 | 90 |
| Total | | 550 | 590 | | 268 | 337 | | 148 | 174 | | 263 | 550 |

Pl - Planned number, Pr - Participated number (trained persons), + DIO extension

As shown in the above table, the conflict management capacity of 590 vice chairpersons of main committee and branch committee, initial canal operation and maintenance technical capability of 337 canal management workforce of WUA and organizational process management capacity of 174 chairpersons and vice chairperson of branch and main canal level was strengthened. Likewise, 550 numbers of male and female were made aware on the need of equal participation of women in WUA. Training contents used were.

- Conflict Resolution Training – Concept of conflict, effects of conflict, types of irrigation related conflict and resolution of conflict
- Initial O&M Training – Irrigation schedule development, water distribution, maintenance need identification, canal maintenance techniques and policy formulation workshop.

- iii. Leadership Development Training – Planning, organizing, directing, communicating, motivating, controlling, monitoring and evaluation skills.
- iv. Gender Awareness Training – Nature of social difference between male and female, analysis of daily duty of male and female and status of women representation in WUA, IMTP.

b. Specific Objective #2: Planning and Conducting IMTP Program and Process Strengthening Training (PPST)

One of the major objectives of Irrigation Management Transfer Project (IMTP) was to transfer management functions of irrigation to WUA. To make the transfer process transparent and effective three critical activities 1) Providing qualitative irrigation service through water management practices, 2) Generating Irrigation Service Fee (ISF) through qualitative irrigation service and 3) Monitoring the benefit accruing from IMTP in terms of institutional benefit, irrigation service improvement and agricultural benefit, had to be well known and initiated in practice by WUA.

To support the above activities, PPS trainings such as irrigation service fee collection trainings to tertiary/secretaries, water management skill development training to tertiary level farmers and benefit monitoring skill development training to chairpersons of main canal and branch canal were provided. The project wise trained personnel numbers under PPST are given in table – 2

Table – 2: PPS Training

| Sub projects | ISF Collection Training | | | Water Management Training | | | Benefit Monitoring Training | | |
|------------------|-------------------------|------------|------------|---------------------------|------------|------------|-----------------------------|------------|------------|
| | Participants | Pl | Pr | Participants | Pl | Pr | Participants | Pl | Pr |
| Chandra Canal | TC - Secretaries | 65 | 98 | TC - Farmers | 20 | 26 | Chairperson of MC and BC | 18 | 30 |
| Kamala (E+W) | TC – Secretaries | 60 | 73 | TC – Farmers | 20 | 25 | Chairperson of MC and BC | 33 | |
| Hardinath (E+W) | TC – Secretaries | 38 | 42 | TC – Farmers | 20 | 25 | Chairperson of MC and BC | 38 | 30 |
| Manusmara (I&II) | TC – Secretaries | 40 | 48 | TC – Farmers | 20 | 26 | Chairperson of MC and BC | 16 | |
| Banganga | TC – Secretaries | 80 | 99 | TC – Farmers | 20 | 25 | Chairperson of MC and BC | 13 | 39 |
| Mohana | TC - Secretaries | 40 | 71 | TC - Farmers | 20 | 25 | Chairperson of MC and BC | 3 | 35 |
| Total | | 323 | 431 | | 120 | 152 | | 121 | 134 |

Pl – Planned number, Pr – participated number

As listed above Irrigation Service Fee collection capability of 431 tertiary level secretaries was re-strengthened; knowledge of 152 tertiary level user farmers on crop wise water use technology for increased productivity of the main crops was increased; knowledge and skill of 134 chairpersons of main committee and branch committee in judging and evaluating the real benefit of IMTP was increased. Training contents used were:

- i. ISF Collection Training – Irrigation policy on ISF, concepts and needs of ISF and ISF management process
- ii. Water Management Training – Soil water plant relationship, tertiary system management and irrigation technique to different crops

- iii. Benefit Monitoring Training – Project planned benefit, development service committed by DIO, development service managed by WUA and development service to be used by users.

c. Specific Objectives #3: Planning and Providing Technical Support to WUAs

Experience in phase - I IMTP (Panchakanya Irrigation System) has shown that technical capability of WUA needs to be strengthened for effective water allocation and distribution procedures. For this, WUA were supported with the canal operation plan (COP), canal maintenance plan (CMP) and water measurement station (gauging station) development. The main activities planned and accomplished under this objective were as following:

- Establishment of gauging station (calibration)
- Development COP and CMP
- Training WUA executives, CMWF and DIO/project staff on Water Measurement Techniques using Current Meter, Cutthroat Flumes and Ring Infiltrometer. The progress made on these activities is given in table – 3, 4 and 5.

1. Gauge Stations Establishment

Table – 3: Gauge Station Establishments

| Project | Gauging stations No. | | Remarks |
|------------------|----------------------|-----------|--|
| | Planned | Completed | |
| Chandra Canal | 12 | 12 | |
| Kamala (E+W) | 18 | X | Flood damaged the branch canals |
| Hardinath (E+W) | 6 | X | Water could not enter into main canal due to heavy siltation |
| Manusmara (I&II) | 17 | 8 | Eight stations are sufficient |
| Banganga | 12 | 12 | |
| Mohana | 5 | 5 | |
| Total | 70 | 37 | |

Out of 70 planned gauge stations, only 37 stations were established as shown in the projects in Table 3. In some projects like in Kamala and Hardinath heavy flood silted up the canal bed inhibiting water flow in the main canal. In Manusmara, eight stations were sufficient for flow measurement. With these gauging stations WUA can measure water and apply water budgeting program. The calibration chart is attached in COP.

2. COP and CMP Development

Table – 4: COP and CMP Development

| Project | COP No. | | CMP No. | | Branch Canals | Remarks |
|------------------|---------|------|---------|------|--------------------------------|----------------------------------|
| | PI | Com. | PI | Com. | | |
| Chandra Canal | 2 | 2 | 2 | 2 | 1. Odraha 2. Maleth | |
| Kamala (E+W) | - | - | - | - | - | Not planned |
| Hardinath (E+W) | 2 | x | 2 | 2 | 1. Eastern MC 2. Western MC | Water did not enter in the canal |
| Manusmara (I&II) | 2 | 2 | 2 | 2 | 1. Bhawanipur 2. Ramban | |

| Project | COP No. | | CMP No. | | Branch Canals | Remarks |
|--------------|-----------|----------|-----------|-----------|-------------------------------|---------|
| | Pl | Com. | Pl | Com. | | |
| Banganga | 2 | 2 | 2 | 2 | 1. Laxminagar 2. Taulihawa | |
| Mohana | 2 | 2 | 2 | 2 | 1. Malatheti 2. Godawari | |
| Total | 10 | 8 | 10 | 10 | | |

Pl. - Planned number, Com. – Completed number

Eight canal operation plans and ten canal maintenance plans were prepared as shown in Table 4. With this specific plans developed for each branch canal of the projects, WUA can guide its CMWF to the equitable water distribution and equity in canal maintenance participation. As a sample guide, these COP and CMP can be extended to other part of the main canal. In Hardinath COP could not be completed as water did not enter into it.

3. Water Measurement Skill Transfer

Table 5: Water Measurement Skill Development

| Subprojects | WUA executives | | | CMWF | | | Project/ DIO/Staff | | |
|------------------|---------------------|-----------|-----------|-------------------|-----------|-----------|--------------------|-----------|-----------|
| | Participants | Pl | Pr | Participants | Pl | Pr | Participants | Pl | Pr |
| Chandra Canal | CP, VC, Sec and Tr. | 4 | 4 | CMWF of MC and BE | 10 | 14 | AE and OS | 5 | 5 |
| Kamala (E+W) | CP, VC, Sec and Tr. | 8 | X | CMWF of MC and BE | 10 | X | AE and OS | 10 | X |
| Hardinath (E+W) | CP, VC, Sec and Tr. | 8 | X | CMWF of MC and BE | 5 | X | AE and OS | 5 | X |
| Manusmara (I&II) | CP, VC, Sec and Tr. | 8 | 16 | CMWF of MC and BE | 5 | 12 | AE and OS | 4 | 13 |
| Banganga | CP, VC, Sec and Tr. | 4 | 3 | CMWF of MC and BE | 5 | 3 | AE and OS | 4 | 5 |
| Mohana | CP, VC, Sec and Tr. | 4 | 6 | CMWF of MC and BE | 5 | 10 | AE and OS | 4 | 4 |
| Total | | 36 | 29 | | 40 | 39 | | 32 | 27 |

CP - Chairperson, VC - Vice- chairperson, Sec – Secretary, Tr- Treasurer, AE- Assistant Engineer, OS- Overseer

Water measurement in the main canal is important to DOI and WUA for equitable water allocation among branch canals. Quite often WUA and project staff should team up on measuring water in the canal system. So, 29 WUA executives, 39 canal management workforce of WUA and 27 project technicians from all the projects as shown in the above table learned water measurement techniques using current meter. This acquired capacity will be used by DOI and WUA in future in the project for preparing water distribution schedule.

d. Specific Objectives #4: Strengthening DIO Staff Skills and Capability in IMTP Process Implementations for the Handover of Subprojects to the WUAs.

For the successful transfer of irrigation management tasks to WUA, DOI staff themselves needed to develop IMTP process implementation capability. To increase such capability among DOI staff of the project level, one day IMTP process orientation training was conducted involving all project staff: DIO/project chief, engineers, overseers, AO and administrative/financial staff. The

first priority of this training was given to those projects where staff were new or joined after transfer from other projects to this project. The specific content of this training is given below:

- Project implementation plan, guideline and process
- Checklist for activity monitoring
- Overall timely advices on program implementation

The achievements made on it is given in table – 6

Table – 6: Strengthening the Skill and Capability of the DOI Staff

| Subprojects | Participants | Pl | Pr | Remarks |
|--------------------|---|-----------|-----------|----------------|
| Chandra Canal | DIO Chief, Engineers and Overseers | 7 | 14 | WUA – EC |
| Kamala (E+W) | DIO Chief, Engineers and Overseers | 11 | 16 | „ |
| Hardinath (E+W) | DIO Chief, Engineers and Overseers | 6 | 10 | „ |
| Manusmara (I&II) | DIO Chief, Engineers and Overseers | 6 | 6 | „ |
| Banganga | DIO Chief, Engineers and Overseers | 7 | 27 | „ |
| Mohana | DIO Chief, Engineers and Overseers | 7 | 18 | „ |
| DOI, Kathmandu | Branch Chiefs, Coordinator and other staff of IMD under DOI | 16 | x | |
| Total | | 60 | 91 | 29 |

Pl – Planned, Pr – Participated numbers

About 62 DIO staff including chiefs of the project along with 29 main executives of WUA acquired skill and knowledge on participatory project implementation process of IMTP.

e. Specific Objective #5: Increasing Women’s Participation and Leadership in Irrigation Management Activities

One of the important needs of IMTP was to increase women participation in WUA and then, in decision making positions. Although, irrigation policy 1992 (first amendment 1997) clause 2.3.1 states there should be at least 20% women representation in WUA, but in practice it was less than 7% representation in all phase - II IMTP projects. To develop appropriate strategy that could help increasing women participation a research was conducted selecting three IMTP sites from phase-II and one from phase –I. The research group came with the solution that three activities such as awareness campaigns, leadership development training and cross visits need to be intensified and tested in Hardinath and Banganga Irrigation Projects in particular and for other projects in general:

1. Awareness Campaigns Forming Women Social Pressure Group - Following the recommendation of the research, intensive awareness campaign at head, Middle and tail part of the command area in Banganga and Hardinath was conducted. In Hardinath a six – member women pressure group was formed to advocate on the need of women participation in WUA. Employed Women Social Mobilizers were used for follow-up actions. The project wise awareness campaign conducted both for women participation and for ISF collection is given in Table – 7

Table – 7: Awareness Campaign for Women Participation and ISF Collection

| Sub projects | Participants | Planned/P ackage | Planned /Number | Participation | Remarks |
|------------------|--------------|------------------|-----------------|---------------|---------|
| Chandra Canal | Male/Female | 3 | 150 | 167 | H-M-T |
| Kamala (E+W) | Male/Female | 8 | 350 | 356 | H-M-T |
| Hardinath (E+W) | Male/Female | 2 | 200 | 185 | H-M-T |
| Manusmara (I&II) | Male/Female | 4 | 250 | 240 | H-M-T |
| Banganga | Male/Female | 8 | 250 | 410 | H-M-T |
| Mohana | Male/Female | 2 | 150 | 150 | H-M-T |
| Total | | 27 | 1350 | 1508 | |

Wider response and interest of female participants were observed on women roles and responsibility in WUA. Several commitments on taking part and positions in WUA election were made in Hardinath and Banganga. As a result of this campaign, there was remarkable increase in the percentage of women participation in WUA of Hardinath and Banganga.

2. Leadership Development Training to Women Representatives of WUA – The purpose of this training was to develop leadership characteristics among WUA women representatives so that advocacy on the need of women participation in WUA would be promoted. With this expectation the project wise leadership development training was conducted as shown in table - 8

Table -8: Women Leadership Development Training

| Subprojects | Participants | Planned | Event | Participated | Event | Remarks |
|------------------|--------------|------------|----------|--------------|-----------|-------------|
| Chandra Canal | Women | 40 | 2 | 26 | 1 | |
| Kamala (E+W) | x | x | x | x | X | Not planned |
| Hardinath (E+W) | „ | 40 | 2 | 50 | 2 | |
| Manusmara (I&II) | „ | 50 | 2 | 54 | 2 | |
| Banganga | „ | 50 | 2 | 104 | 4 | |
| Mohana | „ | 30 | 1 | 32 | 1 | |
| Total | | 210 | 9 | 266 | 10 | |

A total of 266 women representatives of different WUAs learned leadership skill to be used in WUA organization management. The silent and isolated behaviors of the women were changed into advocating attitude even during the training period. Males of the society were blamed for prohibiting and restricting their females in participating WUA activities. Training contents used were:

Concepts of IMTP, canal system and WUA formation, identification of the program of women participation in WUA, group formation skill, leadership skills and leaders, motivating skills, communication skills and program planning.

3. Cross Visits - In order to further strengthen the advocacy role and attitude of women representatives of WUA, a five days cross visit in the following places were organized:

- i. Fishery Development Center, Bhairahawa - For showing the advantage of the fish farming advantages along with the concept of kitchen farming and income generation.
- ii. Sericulture Development, Bhairahawa - For motivating women group in silk Norm farming for income generation.
- iii. Vijaya Development Resource Center, Gnaidakot, Nawalparasi - For exposing women group in saving credit program, income generation program and social welfare program.
- iv. National Maize Research Farm -For exposing women group on maize cultivation practice and variety know how of maize.
- v. Grain Legume Research Program -For increasing knowledge of women group on legume crops, soybean and vegetable beans cultivation.
- vi. National Wheat Research Program - For exposing women group on wheat cultivation methods in optimum and heavy moisture condition of field along with the advantage of no tillage cultivation.
- vii. Banganga Irrigation System - For lessons learning from WUA activities involving women in branch canals.
- viii. Panchakanya Irrigation Project - For understanding roles, functions and achievement made by women pressure group in WUA.

Table 9: Cross Visits

| Subprojects | Participants | Planned | Participated | Remarks |
|------------------|--------------|------------|--------------|-------------|
| Chandra Canal | Women | 40 | 41 | |
| Kamala (E+W) | X | x | x | Not planned |
| Hardinath (E+W) | Women | 40 | 41 | |
| Manusmara (I&II) | - | - | - | |
| Banganga | - | - | - | |
| Mohana | Women | 40 | 40 | |
| Total | | 120 | 122 | |

A total of 122 women representatives of selected tiers of WUA enriched their attitude and knowledge by observing the facts and progress made by similar counterparts in other WUA along with income generation and lively hood alleviating activities under taken by women and public organizations.

f. Specific Objectives #6: Developing plan to increase Membership and Irrigation Service Fee Collection.

ISF and MF has been recognized as the permanent reliable financial resource to WUA for sustaining the O&M activities thereby sustaining the quality of irrigation service and its outcome in terms of agricultural output. It was anticipated by IMTP that the FM and ISF collection efficiency should be at a level of 50% and 40% in each phase –II project by the time of starting physical rehabilitation. But this did not occur in other projects except in Manusmara. Through the experience of previous IMTP phase –I results and also through series of discussions and workshops with field staffs and WUA, a new general plan of action was formulated. According to plan of action massive ISF collection campaign (combining women participation training and also by separately mobilizing NFIWUAN, WUA, project staff, ICDA and WMS –TA staff) up to branch and tertiary level was conducted. For the weaker main and branch committees, a separate one day workshop for financial management record keeping workshop was held in Banganga irrigation project.

The achievement made to meet this objective is given in Table -10

Table – 10: Membership and Irrigation Service Fee Collection

| Subprojects | Before June 2001 | | June 2001 to Sept. 2002 | | Remarks |
|---------------------------|------------------|------|-------------------------|---------------|----------------|
| | MF | ISF | MF | ISF | |
| Chandra Canal | 52 | 15 | 63.01 | 61.8 | |
| Kamala (East) | 12.7 | 0.9 | 42.93 | 27.51 | With old data |
| Kamala (West) | 50 | 1.06 | 74 | 24.91 | MF New |
| Hardinath (East) | 64 | 3 | 104 | 25 | |
| Hardinath (West) | 35 | 0 | 80 | 16.5 | |
| Manusmara (phase-I) | 52 | 40 | 85.12 | 41.89 | |
| Manusmara (phase-II) | 89 | 30 | 133.47 | 39.81 | |
| Banganga | 11 | 0 | 74.85 | 26.39 | |
| Mohana | 39.57 | NA | 91.24 | 16.31 | MF New and Old |
| Total | | | 748.62 | 279.12 | |
| Average Percentage | | | 87.5% | 31% | |

NA – Not available

At the beginning it was anticipated that on an average percentage of ISF and MF collection would reach to the level of 40% and 50% respectively. The present achievement of an average ISF and MF collection is 31% and 87.5% respectively. The reasons for low ISF collection efficiency in many projects are: poor irrigation services provided by DIO, un-maintained main canal and hence low discharge, non transparent behavior of WUA executives on ISF collected and used amount and short period available for the collection. However, the trend and the level of ISF/MF achievement or progress in many projects are quite enthusiastic.

g. Specific Objectives #7: Strengthen network and linkage between the WUAs and the local government bodies (i.e. VDC, DADC and DADO)

For the long-term sustainability of the WUA functions the ongoing project had envisioned WUA affiliation with local government bodies such as VDCs, DADO and DADC. For these activities such as WUA affiliation with DADC, joint annual plan preparation and cross visits to VDC and line agency staff were planned. To accomplish these activities each WUA was encouraged to become member of DADC. Agricultural specialist was invited from DADO to Manusmara Irrigation subproject to initiate winter season and dry season crop cultivation. Many activities to meet this objective could not be carried out because of government strict rules imposed to line agency about security situation and their movement. However, the following achievements in three districts were shown in Table -11.

Table 11: WUA Affiliation

| Project WUA | Activities | | | | Date | Remarks |
|---------------|----------------------|----------|-------------|----------|---------------|---------|
| | Membership with DADC | | Annual plan | | | |
| | Planned | Achieved | Planned | Achieved | | |
| Panchakanya | 1 | 1 [33] | 1 | 1 | June 10, 2002 | |
| Khageri | 1 | 1 | 1 | 1 | | |
| Banganga | 1 | 1 [31] | 1 | 1 | Feb. 8, 2002 | |
| Chandra Nahar | 1 | 1 [21] | 1 | 1 | Nov. 5, 2001 | |

Note:- [21] means representatives from district agency staff – ADO, ADB/N, DAO, etc.

h. Specific Objectives #8: Post Project and Federation Strengthening

1. Post Project Strengthening Support

To provide advices reviewing the ongoing O&M practices and also to re-strengthen WUA on technical and leadership capability, refresher trainings on canal operation, maintenance and leadership development to four phase –I subprojects were planned. The progress of the training accomplishment on this item is shown in table – 12.

Table – 12: Post Project Strengthening Trainings

| S.N | Projects | O&M training | | Leadership training | | Remarks |
|-----|-----------------------------------|--------------|-----------------|---------------------|-----------------|--------------------|
| | | Planned | Achieved | Planned | Achieved | |
| 1 | Panchakanya Irrigation Subproject | 1 event | 1 event | 1 event | 1 event | |
| 2 | Khageri Irrigation Subproject | 1 event | 1 event | 1 event | 1 event | |
| 3 | Pathraiya Irrigation Subproject | 1 event | 1 event | 1 event | x | Not accessible |
| 4 | West Gandak Irrigation Subproject | 1 event | 1 event | 1 event | x | WUA does not exist |
| | Total events | 4 | 4 events | 4 events | 2 events | |

Out of 4 planned events for leadership development training, only 2 events were executed because of the following reasons:

- In West Gandak Irrigation Project, WUA election did not occur. So, WUA does not exist now.
- Pathraiya Irrigation Project has been inaccessible due to security reason. So Leadership Development Training program was dropped.

2. Strengthening National Federation of Irrigation Water User Association (NFIWUAN)

NFIWUAN was established during 2055/56 in order to support grass root WUAs and to propagate advocacy on irrigation policy, regulation and irrigation service fee generation for sustainable implementation of O&M functions of WUA. It was realized through series of discussions with NFIWUAN's staff that it could support in advocacy activities required in IMTP specifically on ISF&MF generation. So, to strengthen and expand the advocacy role of NFIWUAN's central executives, the following activities were implemented:

Training of trainers (TOT) - Ten executive members including Chairpersons and Secretary attended this training. At the end of this training these members were able to judge what is right approach for training and what is wrong approach for training. With this experience, they expressed that they could monitor and evaluate trainings imparted by different agencies including DIO & DOI to WUA.

Interaction workshop in 13 districts - Ten members of NFIWUAN were given TOT on interaction workshop process to be used for irrigation policy and regulation advocacy needed in strengthening the vision of the District Federation. After learning the methodology in TOT NFIWUAN members were mobilized to 13 districts to accomplish the interaction workshop as follows:

Table -13: Interaction Workshop Accomplished by NFIWUAN

| S.N | Districts of Workshop | Date of Accomplishment | Participants |
|-----|-----------------------|------------------------|--------------|
| 1 | Kailali | June 8-9, 2002 | 51 |
| 2 | Sarlahi | June 28 – 29, 2002 | 50 |
| 3 | Dhanusa | March 15-16, 2002 | 64 |
| 4 | Parbat | October 11 – 12, 2001 | 44 |
| 5 | Bardia | Nov. 5 – 6, 2001 | 45 |
| 6 | Illam | Sept. 1 – 2, 2002 | 53 |
| 7 | Ghorkha | Oct. 5 – 6, 2002 | 60 |
| 8 | Bhaktapur | Sept. 6 – 7, 2002 | 100 |
| 9 | Rupendhi | Sept. 8, 2002 | 172 |
| 10 | Jhapa | Oct. 4 – 5, 2002 | 85 |
| 11 | Chitwan | Oct. 5, 2002 | 87 |
| 12 | Makawanpur | Dec. 2 – 3, 2001 | 40 |
| 13 | Nawalparahi | Dec. 10 – 11, 2001 | 42 |
| | Total | | 893 |

Interaction inputs: concepts, structures and objectives of NFIWUAN, possible linkage and relation of different agencies with District Federation, irrigation and regulation provisions

ISF and MF Awareness Campaign in IMTP Subprojects – Ten NFIWUAN members were mobilized in IMTP subprojects after strengthening the advocacy role (widening the knowledge on the effect of ISF/MF in sustaining WUA function, the negative impact on agricultural yield in the absence of quality irrigation service and advantage of ISF/MF generation) in six IMTP subprojects. The program accomplished by NFIWUAN members are given in table – 14.

Table -14: ISF and MF Awareness Campaign by NFIWUAN

| S.N | Projects | Group | | Participants | | Remarks |
|-----|---------------|-----------|-----------|--------------|-------------|---------------|
| | | Planned | Achieved | Planned | Achieved | |
| 1. | Chandra Canal | 4 | 4 | 200 | 222 | |
| 2. | Kamala East | 7 | - | 350 | - | Not completed |
| 3. | Kamala West | 13 | 13 | 650 | 714 | |
| 4. | Hardinath | 4 | 4 | 200 | 205 | |
| 5. | Manusmara | 6 | 6 | 300 | 306 | |
| 6. | Mohana | 6 | 6 | 300 | 300 | |
| | Total | 40 | 33 | 2000 | 1747 | |

Out of 40 packages planned by NFIWUAN seven packages were not completed in Eastern Kamala (Siraha District) because of internal conflict of Eastern Kamala WUA and later on NFIWUAN tried it again but it could not execute because of security complexity. However, 1747 general users of different projects were oriented on ISF & MF.

Training contents used were: introduction of roles and responsibilities of NFIWUAN, irrigation policy, ISF/MF collection, its importance of management

D. ADDITIONAL PROGRAM SUPPORT

Some amount of budget appeared surplus during the period of program implementation. With this surplus program budget, new programs like sapling support to WUA, leadership development training and NFIWUANs national assembly workshop support were planned for further strengthening WUA and federation. The activities accomplished on these headings are given in Table -15 &16.

Sapling support to Kamala and Hardinath WUA – For improving environment, for utilizing wasteland and for generating additional source of income to WUA, Kamala and Hardinath WUA were supported with fruit sapling (jack fruit and mango) which they planted along the waste land of the main canal. The number of saplings planted is given in Table - 15

Table – 15 Sapling Support to WUA

| Projects | Saplings | | Remarks |
|-------------------------|----------------|----------------|--------------------------------|
| | <i>Planned</i> | <i>Planted</i> | |
| Kamala East WUA | 2000 | 1500 | Pits filled-up with rain water |
| Kamala West WUA | 3300 | 3300 | |
| Hardinath East and West | 1675 | 1740 | |
| Total | 6975 | 6540 | |

Continuous heavy rainfall in the middle part of the monsoon disturbed sapling plantation in Eastern Kamala. So, out of 2000 planned number of sapling support only 1500 could be planted.

Leadership development trainings - With the surplus budget leadership (general) trainings were conducted to the lower tiers (branch level and tertiary level) WUA chairpersons, vice chairpersons, secretary and general members. The training purpose was to make aware of WUA functions, roles, irrigation policy and IMTP process. The overall accomplishment of the training is given in table – 16.

Table – 16: Leadership (general) Development Training.

| S.N | Projects | Package | | Participants | | Remarks |
|-----|------------------|-----------|-----------------|--------------|---------------------|---------|
| | | <i>Pl</i> | <i>Achieved</i> | <i>Pl</i> | <i>Participated</i> | |
| 1. | Chandra Canal | 8 | 8 | 200 | 204 | |
| 2. | Kamala E +W | 18 | 18 | 450 | 455 | |
| 4. | Hardinath E+W | 6 | 6 | 150 | 150 | |
| 5. | Manusmara I & II | 11 | 11 | 275 | 258 | |
| 6 | Banganga | 8 | 8 | 200 | 206 | |
| 7. | Mohana | 7 | 7 | 175 | 165 | |
| | Total | 58 | 58 | 1450 | 1438 | |

E. STRATEGY ADOPTED IN ACCOMPLISHING WUA CAPACITY DEVELOPMENT

Linkage and co-ordination – For verifying relevancy of the training needs, WUA committees and District Irrigation Project staff were consulted. WUA executives and project staff were involved in every training for technology and knowledge transfer. Engineers, Sociologist, AOs and Overseers were involved in training process providing training manuals to them for their own future program.

Communication – Early notice and WUA regular meetings of WUA were the media of communication adopted for every program to be conducted in the field.

Integrated programs for ISF/MF collection – Joint program were planned involving field TA staff (ICDA and WSM), WUA and DIO Sociologist/AO in ISF/MF collection and awareness campaign.

Teaching material development and internalization – An action research approach was adopted in developing, testing and finalizing training materials involving concerned experts (Diagnosing the problem - devising training materials – evaluating the approach, material and impact – finalizing the material and internalizing in DOI). Seven training manuals prepared by TA team were demanded by DOI in 100 copies of each. Only 50 copies of each were sent to SMB/DOI chief because of limited budget.

Follow-up and assistance – For the follow-up purpose field staff and specialist staff from Bharatpur office were mobilized in assisting WUA.

Additional awareness program to user farmers on ISF and MF – A repeated request from WUAs and also from the field experience of ICDA and WSM for the need of awareness to general water users at tertiary level on requirement and process of ISF & MF collection, showed the need of further program support on this item. Hence, additional new packages of awareness program were developed and implemented through ICDA. The program accomplished is given in table -17.

Table – 17: Awareness Program to User Farmers on ISF & MF

| S.N | Projects | Package No. | | Participants No. | | Remarks |
|-----|----------------|----------------|------------------|------------------|---------------------|---------|
| | | <i>Planned</i> | <i>Completed</i> | <i>Planned</i> | <i>Participated</i> | |
| 1 | Chandra Canal | 5 | 5 | 250 | 257 | |
| 2 | Kamala E + W | 11 | 11 | 550 | 565 | |
| 3 | Manusmara I&II | 10 | 10 | 500 | 458 | |
| 4 | Hardinath | 6 | 6 | 300 | 371 | |
| 5 | Banganga | 5 | 5 | 250 | 350 | |
| 6 | Mohana | 3 | 3 | 150 | 152 | |
| | Total | 40 | 40 | 2000 | 2153 | |

WUA Branch office/Block office establishment support – For the smooth operation and maintenance of branch canals, branch committees have to perform several official works such as keeping ISF/MF collection records, conduct meetings, make decisions, circulate decisions, in maintaining good governing practices over the lower tiers of WUA. For this, minimum office

support was requested by WUAs and also was realized by the field staff also. Therefore, office supports to branch committees of the respective project WUA were provided as follows:

Table – 18: Branch Office Establishment Support

| Project WUA | Office Support BC | No | Remarks |
|---------------|--|-----------|-------------------|
| Chandra Canal | Maleth - Odraha Baluwa - Barmajiha | 4 | Small office kits |
| Kamala East | Bandipur – 1, 2 Vokraha - Siraha | 4 | Small office kits |
| Kamala West | Khajuri - Raghunatpur | 2 | Small office kits |
| Hardinath | Main – East and West | 2 | Small office kits |
| Banganga | Main, Kusma, Harnampur, Hatihawa BC | 4 | Small office kits |
| Mohana | Malakheti - 1 | 1 | Small office kits |
| Total | | 17 | |

The small package of office kits consisted of: one steel self, one table and a numbers of chairs (5-15) / benches (5-10) & stationeries to be used in day to day WUA office activities. In some branch canal jute mat was given for the use during internal WUA training.

F. WORKSHOPS, MEETINGS AND RESEARCHES

Workshops and Meetings – About 30 events workshops and meetings were conducted for developing general consensus, reviewing progress and new plan development. Examples of such workshops and meetings held are given below:

- i. Project startup workshop (1) – To orient and introduce project guideline and process to deployed project staff.
- ii. ISF/MF collection strategy workshop (1) – For devising new strategy of ISF and MF collection
- iii. Program review and action plan development workshop (3) – For additional program formulation
- iv. Financial capability review workshop to Banganga WUA (1) – For strengthening financial capability of WUA
- v. WUA affiliation to DADC and annual plan development workshop (3) – For providing membership to WUA.
- vi. Quarterly program review and new plan development meetings (4) – For developing new program and reviewing on going programs.
- vii. Budget review and revising meeting (2) – For budget revisions and expenditure monitoring.
- viii. Security analysis strategy formulation meeting (6) – For changing implementation plan to suit the existing filed situation.
- ix. Monthly meetings for office procedures and process improving (managerial) (8) – To improve internal procedures of office management.
- x. Project completion meeting – summary of progress lesson learned and further recommendation by group.

Researches – Three Types of field researches were conducted for understanding field constraints and documenting existing field situation and procedures. The feature of each research is briefed below:

- i. IMTP process documentation study of Panchakanya Irrigation System – By WMSP, IAAS Rampur. This study documents the field and institutional status, history of evolution of users group and water availability used before IMTP along with the IMTP intervention process (rehabilitation, WUA and water management) and the overall project situation and performance as of July 2002.
- ii. Collection of crop data from IMTP phase –II subprojects – By Joshi. This study provides this year information on crop yield, cropping intensity, cost of farming along with project wise existing cropping pattern of six IMTP phase – II project sites.
- iii. Women’s participation and leadership development in IMTP – By Dr. Samira Luitel. This research document/provides information on suggestion for women’s participation in WUA, possible areas of women’s involvement in WUA and constraints in women’s participation in WUA.

G. OVERALL TARGET AND PROGRESS

The overall target plan of the program and its achievements are shown in Table – 19. The overall program duration was planned for 22 months at the beginning. Later on program duration was shortened to 15.5 months keeping the program numbers the same. At the beginning it was thought almost impossible, to achieve the targets, however, as work progressed and project management improved, it became easy to accomplish such heavy tasks despite of frequent obstructions and Nepal Bandh.

Table 19- OVERALL PROGRESS

| S. No. | Lg. Fr. | Activities | Unit | July - Sept 2001 | | | Oct - Dec 2001 | | | Jan - Mar 2002 | | | Apr - Jun 2002 | | | July - Sept 2002 | | | Annual Total | | | Remarks |
|----------|----------|--|----------|------------------|--------|-----|----------------|--------|-----|----------------|--------|-----|----------------|--------|-----|------------------|--------|-----|--------------|--------|-----|-----------|
| | | | | Plan | Actual | % | Plan | Actual | % | Plan | Actual | % | Plan | Actual | % | Plan | Actual | % | Plan | Actual | % | |
| 1 | 1 | SIT Trainings | | | | | | | | | | | | | | | | | | | | |
| | 1.1 | Conflict Resolution Training | person | 147 | 135 | 92 | 161 | 221 | 72 | 166 | 94 | 56 | 86 | 104 | 120 | - | 30 | 6 | 560 | 590 | 106 | VC |
| | 1.2 | Canal O&M Training | person | 68 | 0 | | 152 | 123 | 80 | - | 175 | 180 | - | 23 | 8 | 48 | | | 268 | 337 | 119 | CMWF |
| | 1.3 | Leadership Development Training | person | - | | | 25 | 0 | 0 | 62 | 87 | 140 | 86 | 60 | 70 | - | 27 | 15 | 173 | 174 | 100 | CP/VC |
| | 1.4 | Gender Awareness Training | person | 60 | 69 | 115 | 203 | 90 | 44 | - | 390 | 375 | - | | | - | | | 263 | 545 | 207 | CP/VC |
| | 1.5 | Gender Research | nos. | 1 | 1 | 100 | - | 0 | - | | | | | | | | | | 1 | 1 | 100 | |
| 2 | 2 | PPS Trainings | | | | | | | | | | | | | | | | | | | | |
| | 2.1 | ISF Collection Training | person | 40 | 48 | 120 | 65 | 0 | 0 | 138 | 135 | 97 | 120 | 71 | 60 | - | 177 | 21 | 323 | 431 | 133 | Sec |
| | 2.2 | Water Management Skill Dev. Training | person | - | | | 40 | 0 | 0 | 40 | 50 | 125 | 40 | 101 | 252 | - | | | 120 | 151 | 126 | Farmer |
| | 2.3 | Benefit Monitoring | person | - | | | - | | | 34 | 0 | 0 | 71 | 0 | 0 | 16 | 134 | 111 | 121 | 134 | 111 | CP |
| 3 | 3 | Technical Support to WUA | | | | | | | | | | | | | | | | | | | | |
| | 3.1 | Flow Measurement Training | person | 20 | 32 | 160 | 20 | 23 | 115 | 15 | 0 | 0 | | | | 21 | 40 | 28 | 76 | 95 | 125 | CMWF/D IO |
| | 3.2 | Calibration | nos. | 32 | 24 | 75 | - | 10 | | - | | | - | | | 38 | | | 70 | 34 | 48 | CMWF |
| | 3.3 | COP Preparation | nos. | - | | | 5 | 2 | 40 | 3 | 4 | 133 | 2 | 0 | 0 | - | 2 | 20 | 10 | 8 | 80 | Stn. |
| | 3.4 | CMP Preparation | nos. | - | | | 5 | - | | 3 | 2 | 66 | - | 6 | 60 | 2 | 2 | 100 | 10 | 10 | 100 | |
| 4 | 4 | Skills & Capability Training to DOI Staff | nos. | 23 | 14 | 61 | 37 | 42 | 113 | - | | | - | | | - | 8 | 7 | 60 | 62 | 100 | |
| 5 | 5 | Increasing Women Participation | | | | | | | | | | | | | | | | | | | | |
| | 5.1 | Awareness Campaigns (ISF)1 | Campaign | 2 | 3 | 150 | 8 | 7 | 87 | 8 | 8 | 100 | 6 | 9 | 150 | 3 | | | 27 | 27 | 100 | Users |
| | 5.2 | Leadership Development Training 2 | Events | - | | | 2 | 2 | 100 | 2 | 5 | 250 | 3 | 3 | 100 | 2 | | | 9 | 10 | 110 | Wom |
| | 5.3 | Cross Visits | Events | | | | - | | | 2 | 0 | 0 | 1 | 2 | 200 | - | 1 | 33 | 3 | 3 | 100 | Wom |
| 6 | 6 | Increase ISF & MF | | | | | | | | | | | | | | | | | | | | |
| | 6.1 | ISF collection | % | 10 | 1.11 | | 10 | 9.1 | 90 | 10 | 4.5 | | 10 | | | - | 2 | 20 | 40 | 32 | 80 | |
| | 6.2 | MF collection | % | 10 | 15 | | 10 | 18 | 180 | 20 | 7.10 | | 10 | | | - | | | 50 | 87.5 | 175 | |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-----------|--|--------|---|---|---|---|-----|-----|---|-----|-----|-----|-----|------|------|-----|------|------|-----|------------|
| 7 | 7 | Network & Linkages | | | | | | | | | | | | | | | | | | | |
| | 7.1 | WUA affiliation with DADC | nos. | - | | 3 | 1 | 33 | 3 | 1 | 33 | 3 | 1 | 33 | 1 | | | 10 | 4 | 40 | WUA |
| | 7.2 | Joint Annual Plan | nos. | - | | 3 | 1 | 33 | 3 | 1 | 33 | 3 | 1 | 33 | 1 | | | 10 | 4 | 40 | WUA |
| | 7.3 | Cross Visits | events | - | | - | | | 1 | 0 | 0 | - | | | - | | | 1 | 0 | 0 | |
| 8 | 8 | Post Project Support | | | | | | | | | | | | | | | | | | | |
| | 8.1 | O&M Training Conducted | events | - | | - | | | 4 | 1 | 25 | - | | | - | 3 | 75 | 4 | 4 | 100 | CMWF |
| | 8.2 | Leadership Development Training | events | - | | 4 | 0 | 0 | - | 2 | 50 | - | | | - | | | 4 | 2 | 50 | CP |
| | | Federation Support | | | | | | | | | | | | | | | | | | | |
| | 8.3 | District | nos. | - | - | - | - | 10 | 100 | 7 | - | 3 | - | - | - | | | 10 | 10 | 100 | WUA |
| | 8.4 | Central (National) | nos. | | | | | | | - | - | 1 | - | - | | | | 1 | 0 | 0 | Federation |
| 9 | 9 | Workshop Meetings | nos. | 3 | 3 | 3 | 3 | 100 | 5 | 5 | 100 | 5 | 5 | 100 | 2 | 2 | 100 | 18 | 20 | 111 | |
| 10 | 10 | Researches* | nos. | | | 3 | 0 | 0 | 0 | 1 | 33 | 0 | | | 0 | 1 | 33 | 3 | 2 | 66 | |
| ADDITIONAL PROGRAM | | | | | | | | | | | | | | | | | | | | | |
| 11 | 11 | Leadership Development (Orientation on WUA functions roles etc.) | | | | | | | | | | 700 | 688 | 98 | 750 | 744 | 99 | 1450 | 1432 | 99 | |
| 12 | 12 | Federation Support | | | | | | | | | | | | | | | | | | | |
| | 12.1 | TOT | | | | | | | | | | 3 | 3 | 100 | - | | | 3 | 3 | 100 | |
| | 12.2 | ISF Awareness | | | | | | | | | | 33 | 33 | 100 | 7 | | | 40 | 33 | 83 | |
| | 12.3 | Interaction | | | | | | | | | | 4 | 4 | 100 | 1 | | | 5 | 4 | 80 | |
| 13 | 13 | Sapling Support | | | | | | | | | | | | | | | | | | | |
| | 13.1 | Kamala East | | | | | | | | | | | | | 2000 | 1500 | 75 | 2000 | 1500 | 75 | |
| | 13.2 | Kamala West | | | | | | | | | | | | | 3360 | 3360 | 100 | 3360 | 3360 | 100 | |
| | 13.3 | Hardinath E+W | | | | | | | | | | | | | 1675 | 1740 | 104 | 1675 | 1740 | 104 | |

Note: * = Researches will be only three instead of 14 due to budget constraints.

Note:

S.No. 5.2/8.1/8.2 - One event contains 25 participants

S.No. 5.3/7.3 - One event contains 40 participants

SECTION II: PROJECT INPUT

Budget and Expenditure
Field Office Organization and Staffing

A. Budget and Expenditure

Financial Status: Total available budget and expenses for the period June 2001 –November, 2002 are given below (figures are in US \$):

| Available Budget and Expenditure (June 2001 – November 15, 2002) | | | | | | |
|---|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| | RITI-APTEC | | | CARE-NEPAL | | |
| Description | Budget | Expenses | Spent (%) | Budget | Expenses | Spent (%) |
| Program | 72,167 | 67,208 | 93.12 | 4,500 | 3,264 | 72.53 |
| Personnel and Operation | 295,079 | 260,920 | 88.42 | 184,995 | 225,348 | 121.81 |
| Indirect Cost Recovery | | | | 42,992 | 42,992 | 100.00 |
| Total | 367,246 | 328,128 | 89.34 | 232,487 | 271,604 | 116.82 |

The total budget available and expenditure for the project is US \$ 599,732. The detail of budget expenditure has been presented in the above table.

B. Field Office Organization and Staffing

To manage project, an organization chart as shown below was developed and the field level staff were deployed with their Terms of Reference and work schedule. Staffs were oriented on internal communication and reporting procedures along with organizational work process, financial recording, procurement process, proposal development, approval and settlement process, vehicle policy, staff leaves and salary benefits. Authority and responsibility were clearly deliberated. As described by project document the following units and persons were engaged in accomplishing the project objectives:

1. Team Leader – He was responsible for overall management and control of the project activities, guiding and assisting all long term and short term consultant technically and supervising, monitoring and reporting project activities.
2. Project management units – It was responsible in assisting team leader in overall financial, administrative & logistic management activities of the project.
 - 2.1 Administrative and financial sub-unit – It was responsible for managing financial activities – record keeping, managing financial transaction and settlements.
 - 2.2 Computer subunit – It was responsible for managing proposal, document typing and correspondence activities.
 - 2.3 Inventory and logistic subunit – It was responsible for managing, recording and procurements activities of the project.
3. Program unit – It was responsible for overall guidance, planning, monitoring and reporting of program activities of the project.
 - 3.1 Training management subunit- It was responsible for planning, proposal preparing, documenting, coordinating and recommending training activities of all the projects.
 - 3.2 Gender development subunit – It was responsible for designing gender development program, conducting training, training material design and development.
 - 3.3 Water management subunit – It was responsible for developing training materials, manuals and conducting activities for overall technical capacity development activities of WUA.
 - 3.4 Institution development subunit – The overall responsibility of institution development unit was to accomplish initial managerial capacity development training for WUA and to increase ISF/MF collection. For ISF/MF collection support project based WUA support staff were deputed as follows:
 - a. WUA support staff (ICDA –????) – ICDA's were deployed for supporting WUA in day to day official activities and for supporting ISF/MF collection activity six project units were established in each subproject of IMTP. For these activities ???? ICDA's were deployed.
 - b. Women Social Mobilization – For promoting women participation in WUA a total numbers of 27 women social mobilizers (WSM) were employed as recommended

by WUA. These WSM worked under ICDA supporting WUA activities such as ISF/MF campaign also.

- c. Several other short term specialists and field technicians were deployed under each subunit to promote the planned activities. The list of all the employed staff are given in the Annex – b.

C. Organizational Work Process

For smooth and effective management of day to day project implementation activities responsibility and authority was delineated to unit and subunit in-charge.

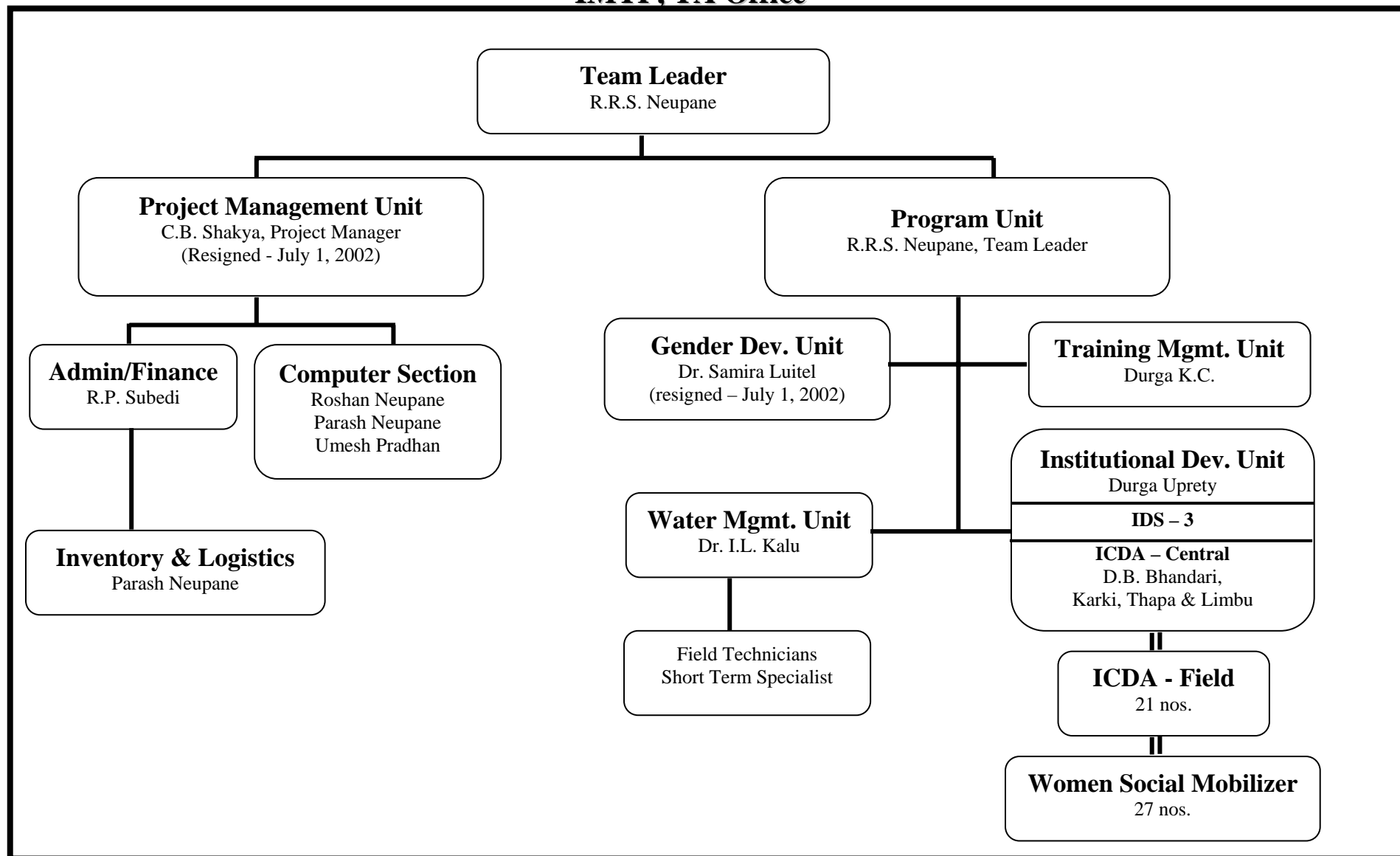
Programs were developed jointly with the long term and short-term staffs including the current needs of WUA.

- a. Program Implementation - Each responsible technical staff would first prepare the proposal in participation with training coordinator who would guide on unit cost & cost estimation of the proposal. The technical staff submits the proposal to training coordinator who after recommendation forwards to Team Leader.

After checking the validity of the proposal, team leader approves it and forwards to project manager for implementation.

- b. Financial & Administrative Procedures - These procedures are followed according to the company rules of RITI Consultancy P. Ltd.

Organizational Structure of Bharatpur IMTP, TA Office



SECTION III – ISSUES AND PROBLEMS

Several types of issues/problems appeared while implementing capacity building trainings of WUA. The remarkable ones are described below:

1. **Security related** – Unexpectedly during and after first quarter period of the project operation, terrorism expanded all over eastern and middle terai part of Nepal. This caused frequent cancellation of the pre-scheduled activity, frequent change in the type of the program, postponement of the program and withdrawal of the program.
2. **WUA related** – Despite of repeated advices of TA needing for literate participants required in specific professional trainings, WUA used to send illiterate person as such persons were elected members of WUA.

Provided goods and services are limited to Upper Committee of WUA: The TA training program as well as DIO service and support program is only concentrated at the upper level committees of the WUA with the expectation that these provided services would extend to the lower tiers also. But this generally does not happen resulting inactive participation of lower level organization such as tertiary committees, block committees & minor committees.

Misuse of WUA's ISF Fund: Due to weaker enforcement of rules and penalties frequently incidents of ISF misuse have been reported to WUA by the Secretaries. Some persons accountable to assist and co-operate in increasing ISF/MF do not feel a moral obligation to deposit collected amount in the bank.

Non existence & non-renewed WUA: Some WUA's formal period has been expired and need to renew the organization otherwise it can not operate official function. Trainings and other services provided to such WUA become unusable. The formal tenure of Pathraiya WUA was over long before. Trainings like leadership development could not be implemented because of non-existence of WUA (West Gandak) and unsecured situation in Pathraiya irrigation project.

3. **Canal system related** – General tendency of the users was to participate in every activity of WUA when they are assured of getting due share of irrigation service. When water is not available to them they do not cooperate. Several canal network related issues disturbed skill and knowledge, learning participative attitude of the WUA.

Since Mohana headwork collapsed due to flood, WUA became less interested in training. When silt was not cleared in Chandra Main Canal the tail ender showed less interest in the training expressing “training for what when there is no water in the canals”.

Changing attitude for Learning: WUA change its attitude and decision on pre-planned capacity development activity as irrigation system itself become non functional. As water did not enter into Hardinath irrigation system this year, WUA was passive in well coming training. If DOI does not maintain main canal timely, WUAs become frustrated and show very little cooperative attitude for WUA development.

Delayed handover of the branch canals caused in secured irrigation service: Many branch canals which were complete in rehabilitation & institution process could have been handed over to branch committee which is eager and ready for tertiary cleaning and water distribution with new zeal & ownership. ISF collection efficiency & activities are higher in the branch canals where WUA feel ownership of the canal.

4. **Inadequate mutual relation between agency & WUA:** In some of the projects, the relation between agency and WUA was not good. Conflicts and cold relation hindered program execution. Several days had to be spared by TA for establishing good relation & mutual understanding between these units. Sudden eruption of such conflict, occasionally hinder the smooth execution of the program.

SECTION IV – IMPACTS AND OBSERVATION

Initial capacity strengthening activities of WUA produced remarkable impacts and changes in the field. Some of the changes and impacts reported by field staffs are given below:

1. Progress in the Leadership Role of WUA Chairpersons and Executives

- a. WUA started decentralized management: Many Chairperson of branch and tertiary committee have shifted unilateral decision making process to participatory decision making process – the regular meetings were conducted for discussion of the canal operation, maintenance and irrigation service fee issues in the group for consensus.
- b. Conflict management role shifted: Irrigation conflicts are now being presented to WUA committees instead of presenting to DIO. Vice Chairpersons are taking main role in solving conflicts in some projects.
- c. Labor resource mobilized for canal cleaning: The executive members have started mobilizing labor resource in cleaning and maintaining damaged canals. The labour force mobilized by WUA in Banganga, Khageri, Kamala (East and West) and in Hardinath was remarkable. Around 4000 users in Khageri, 2000 in Kamala and 6000 in Banganga were mobilized by WUA.

2. Increase in Women Participation in WUA

- a. Ratio Increased: Massive awareness campaign just before WUA election held at Hardinatha and Banganga increased the ratio (female to male) of women participation from less than 0.03 to 0.28. In some branches only women occupied all executive and membership positions.
- b. Interest increased: Huge mass of women users of all IMTP phase – II command area unanimously voted for participating in the election of the WUA.

3. WUA Started Operating and Maintaining Branch Canals

- a. Canal operation: Branch canal committees of Odraha and Maleth have applied water schedule from the rainy season. Similarly, Manusmara WUA has developed its own water distribution schedule for this paddy season.
- b. Canal cleaning and repairing: There are several cases in each project that WUAs have started cleaning tertiary and branch canals. In Banganga, Kamala and Chandra Canal such as evidences are more pronounce.

Kamala East

WUA mobilized 300-500 labours/day for three days to repair two big breaches in the main canal. In Bhokraha & Kalyanpur branch committee mobilized 150 persons for two days to repair & maintain the damage. Ultimately, the committees were successful in distributing water.

In Bandipur minor, flood damages were repaired by mobilizing labours and dozer. For this BC committee collected Rs. 200/household for diesel to dozer. Water was released in Pradi, Gotari, Dumri, Bramhapur, Arnama & Matharuwa repairing flood damages by respective minor committees.

Banganga

About six branches & 140 teritaries were cleaned worth of Rs. 1,62,00000.00

Mohana

Main and branch canals were cleaned by the farmers in the initiation of branch committees.

4. Increase in ISF/MF Collection Efficiency

Within one year duration several WUA made remarkable progress in increasing ISF and MF. Upto 36% increase in ISF was observed in many projects. MF collection efficiency increased by more than 50% in many projects.

5. Importance of Decentralized Management is Realized by WUA Branch Canal Committees

Now, branch canal committees with tertiary committees have started collecting ISF/MF fee. Many of the projects have opened bank account also for depositing ISF and MF. This deposited amount is going to be utilized in canal O&M.

6. Irrigation Management Transfer is Taking Place

WUA has started taking over the management responsibilities of the canal system. The branch canal transfer number reached within this TA period is given below:

| | |
|-----------------------------------|--|
| Kamala East | Bandipur I & II took over by WUA |
| Kamala West | Reghunathpur and Bisamvara branch were taken over by branch committee and main committee |
| Manusmara phase I & II | Completed canal networks excluding main and barrage were taken over by WUA |
| Mohana Subsystem | Malakheti branch and main canal was taken over by WUA. |

7. Linkage and Co-ordination Initiated

As a result of WUA affiliation with DADC in Banganga, Land Revenue office has started helping WUA in collecting ISF/MF. One person from WUA collects ISF from water users who come to pay land tax in land revenue office.

8. Increasing the Ownership Feeling Towards the Irrigation System

The training program has also greatly influenced the farmers to increase the ownership feeling towards the irrigation system. It was observed in the field that after handover users feel the system as their own.

SECTION V – RECOMMENDATIONS

1. WUAs Need Advance Capability Building Training.

The present project concerned to the initial management and technical capacity development of only professional executive members of Water User Organization of all level in line with IMTP needs. **However, time has come to start advance managerial, organizational, technical capacity building training in line with good governance.**

2. WUAs Need Advance Organizational Process Management Training.

Organizational process implementation and management, capacity development is needed to WUA main committee and branch committee of all level. **Intra-organizational communication process, democratic decision making process, conflict settlement processes need to be institutionalized for sustainable organization function.**

3. Managerial Capacity of WUA Need to be Further Strengthened.

WUAs of some projects have just initiated group consensus activities and action plan implementation. **Further, monitoring and benefit evaluation capacity, ISF administration capacity, overall action planning and controlling capacity of WUA in each level is still inadequate.**

4. Technical Capacity of WUA in Operating and Maintaining of Handedover Canals Need to be Further Strengthened.

Canal operation plan and canal maintenance plan need to be developed as day to day seasonal tools for smooth delivery of irrigation service to users. **Beside, extensive skills and knowledge must be wide spread over all branch and tertiary committees and over general users on water saving process, rotational system of water delivery and participatory canal maintenance practices.** The present project activities were limited to canal management workforce of a few branch canals, tertiary canals and all main canals. Users still do not realize the negative impact of excessive water application and overall effect on tail enders, water equity due to upstream blockage and miss managing schedule.

5. WUA capacity on Good Governance Practice Needs to be Strengthened.

Almost in all 13 WUAs of IMTP there lacks adequate practice of governing institutional activities and process. Despite repeated advices of the technical assistance on program and expenditure transparency, mutual accountability sharing in performing water delivery form branch to tertiary and from tertiary to users with greater participation in canal maintenance on benefit share basis – results have not been seen to the level of requirement. **Hence, extensive capacity strengthening program on good governance is needed for the following organizational ethics for:**

- a) **Minimizing organizational corruption – misusing ISF/MF and other generated resources;**

- b) Developing greater sense of mutual cooperation within different level of WUA organization;
 - c) Performing equitable irrigation benefit sharing within head to tail ender of the command area;
 - d) Establishing strong rules, norms, process, guidelines within WUA;
 - e) Developing roles and responsibility, authority and accountability among all stake holders of WUA, and
6. **More and More Efforts should be Made to Increase Greater Participation of Women in WUA.**

It was learned from observation that women can perform some of the WUA functions such as water distribution, ISF/MF collection, labour resource mobilization, office works better than male. **Massive awareness program, mobilization of women pressure group, information and program sharing (50% male and 50% female) in the group (gender equity principle) motivate women and their participation.**

7. ISF Generating Field Programs Need to be Focused Urgently.

For sustaining WUA canal operation and Maintenance functions ISF is the only dependable financial source of WUA. It is also true that ISF does not flow up ward itself but depends on quality of irrigation service. **For quality service field based participatory water management programs need to be started from tertiary level starting from one branch canal to another.**

8. DIO, WUA and Outside Stakeholders Need to Plan, Implement and Monitor the Capacity Building Program Jointly.

No matter how much the budget comes from any sources like DOI, NGOs or other donors, but the joint planning and execution does promote mutual relation without any conflicts among all the stakeholders.

SECTION VI

1.1.a LESSONS LEARNED ABOUT MANAGERIAL CAPACITY DEVELOPMENT

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| Lesson Learned No 1 | Job description of each WUA executive develops accountability feeling in them |
| Direct behavioral differences in WUA meetings were observed between WUA executive of defined job description and the one without job description. WUA executives of Chandra Canal, Banganga and Kamala East became more accountable to association when their job descriptions were told to them. Executives seem non responsive and unaccountable if job descriptions are unknown. | |
| Lesson Learned No 2 | Roles and responsibility of each level of organizations and executives should be known to all WUA members of all levels. |
| The tertiary level WUA committee of almost all phase –II WUAs, remained non-responsive and almost non-cooperative to branch and main committee saying – “we do not know what branch and main committee people do for us”. Irrigation service fee collection did not become effective at the lower level at the beginning of the project. In Banganga, WUA chairpersons and other members started campaigning on the roles and functions of each level of WUA committee. As a result, a great increase in MF collection was observed. | |
| Lesson Learned No 3 | Simple and basic management capacity building trainings seemed effective immediately after formation of WUA. |
| Management capacity development trainings on: leadership skills, office procedure (administrative and financial) program planning and controlling and establishing office were very effective at the beginning in almost all of 13 WUAs of IMTP | |

1.1 b. LESSON LEARNED ABOUT ORGANIZATIONAL PROCESS DEVELOPMENT

| | |
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| Lesson Learned No 1 | Simple organizational processes like conflict resolution, problem solving, action planning, vision formation decision making, communication and resource management are day to day processes within WUA. |
| In every WUA, the above written four processes are dominantly prevailing in day to day function of each WUA. So, WUA executives chairpersons, vice-chairpersons, secretaries need to be trained frequently until adequate knowledge and skills are developed in these areas. | |
| Lesson Learned No 2 | Participatory approach in institutionalizing organizational process is effective. |
| WUA executives learn perfectly and clearly if trainer works in real situation with concerned staff taking case one by one. When ICDAs were deputed to WUA offices for follow-up joint action, the results became very apparent. | |

1.1 c LESSONS LEARNED ABOUT WUA ORGANIZATION DEVELOPMENT PROCESS

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| Lesson Learned No 1 | Action research approach is useful tool in WUA organizational capacity development |
| <p>The action research concept for organizational capacity development effort consists of diagnosing organizational process, structure, subunit relationship, organizational function and vision. Constraints and needs are analysed, then the training is formulated. After training, behavioral changes and impacts are observed by field staff. Follow-up and re-correcting plans and program need to be implemented to judge the level of achievement.</p> | |

1.1 c LESSONS LEARNED ABOUT TECHNICAL CAPACITY BUILDING OF WUA

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| Lesson Learned No 1 | WUA need knowledge and skills on canal operation management, canal maintenance management, on-field (farm) water management and water loss process and agricultural production management |
|----------------------------|--|

Once the canal management task is handover to the WUA, it has to start providing irrigation service to user farmers. Unless its staff acquire adequate knowledge and skill, WUA can not develop effective irrigation schedule and maintain equity. Similarly, the users should be award of water loss; they should know how to irrigate crop for maximum water use efficiency. WUA also should know canal maintenance technology.

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| Lesson Learned No 2 | Tools like canal operation plan (COP) and canal maintenance plan (CMP) are effective when prepared and applied under learning process approach |
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One of the important aspects of WUA development process adopted in IMTP was a democratic, transparent and participatory action plan and its implementation in COP and CMP preparation. Problems are jointly (WUA, DIO and TA) assessed, solution is jointly devised and action plan is implemented jointly. In doing this way, WUA adopted the process confidently.

2. LESSONS LEARNED ABOUT IRRIGATION SERVICE FEE (ISF)/ MEMBERSHIP FEE (MF) COLLECTION

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| Lesson Learned No 1 | <p>a. Farmers are motivated to pay ISF when they receive adequate irrigation service.</p> <p>b. Maintaining reliability of irrigation service maintains participatory attitude of the users.</p> |
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Farmers do not pay irrigation service fee when they do not receive water timely and adequately. However, they will participate in ISF collection if the reliability of water supply is maintained no matter how much less quantity is supplied.

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| Lesson Learned No 2 | Transparency in the amount of ISF collection, depositions in the bank and its use in O&M always encourage users to |
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| | |
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| pay more and more ISF. | |
| The tendency of the users for not paying ISF seemed of two reasons; (i) because users have not received irrigation service, ii) because they themselves do not know how and where ISF given was used. The retardation came in Chandra canal and others during one time when main committee could not provide information in ISF collected to some of the branch chairpersons. | |
| Lesson Learned No 3 | More and more users want to pay membership fee hoping quality of irrigation service delivered would increase. Higher interests are shown by the tail enders. |
| During ISF/MF collection campaign in six IMTP – phase – II projects more and more tail enders paid membership fee. In Kamala East and West the members were huge in number. Tail enders are disadvantaged group in any irrigation systems operated unsystematically and without schedule. | |
| Lesson Learned No 4 | Irrigation service fee collection and membership fee collection efficiency grows up if WUA main committee, branch committee and tertiary committee jointly make campaign themselves making tertiary committee more responsible. |
| Several strategies and plans – door to door campaign, mass awareness campaign and intra WUA interaction activities were conducted to raise ISF and MF level in IMTP projects. But the result obtained was of little value. When WUA committee campaigns were started in Chandra canal, Banganga and Kamala the efficiency grew-up to a reasonable level. | |

3. LESSONS LEARNED ABOUT WOMEN PARTICIPATION

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| Lesson Learned No 1 | Women participation in WUA can be increased if programs on women's roles and their needs are narrated in a bigger but separate mass of women. |
| Women participation increased both in Hardinath and Banganga remarkably (from 3% to 25%) when bigger mass of women farmers from head-middle-tail part of the command area were involved in general awareness program before WUA election. In a few number of branch canals of these projects, women have taken all the executive roles. | |
| Lesson Learned No 2 | Women pressure group utilization for increasing women participation is effective in motivating women for participation. |
| A pressure group of women was formed in Hardinath as recommended by the research. Two six member pressure groups were given an action plan of house to house contact advocating women's roles in WUA. As a result of it, women's representation in WUA increased from 3% to 25%. Women of other projects got encouragement when pressure group member of Panchakanya was utilized. | |

4. LESSONS LEARNED ABOUT TRAINING WUA PERSONNEL

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| Lesson Learned No 1 | Trainings are effective if knowledge and skill requirements are matched to immediate problems of WUA. |
| When planning trainings one needs to identify the immediate problems of WUA. It may be water management or water scheduling or canal maintenance or organizational issues. | |
| Lesson Learned No 2 | Trainings are much more effective if they are tied up with action plan and if its results are monitored and followed up. |
| During capacity building process it was experienced through many occasions that where training programs were tied with on going programs or nearest issues, WUAs applied their changed behavior in the field. For example, after learning initial canal maintenance trainings, WUAs of Banganga cleared tertiaries mobilizing labour resources worth of Rs.4200000. Similarly, cases were reported from Kamala and Chandra canals because water did not enter into the tertiary canals. | |
| Lesson Learned No 3 | Program transparency auditing after completion of the training and training estimate transparency process before training begins eliminates all types of doubts and rumors in training management. |
| Before starting the training, disclosure of training budget on participant's allowance, snacks – expenditure, resource person allowance is essential. Like wise, training expenditure and surplus amount jointly concurred by WUA and training personnel eliminates all about fussy talks on training management. | |
| Lesson Learned No 4 | WUA can manage trainings if they are trained on training management process and training skills. WUA managed trainings are much more cost effective. |
| Experiment adopted giving chances to WUA in managing awareness training in Banganga and Chandra canal proved that WUA trainings are cost effective. Awareness training conducted by WUA cost Rs. 3000 per package where as official training cost Rs. 10000 or even more. However, all types of training management are not possible by WUA. | |

5. LESSONS LEARNED ABOUT IMTP PROCESS IMPLEMENTATION

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| Lesson Learned No 1 | IMTP implementation process and guideline orientation, follow-up and refresher training on DIO staffs along with WUA and SMC executives improves good relation, understanding, commitment and transparency to better implementation of the program. |
| DOI staff – chiefs, engineers, overseers, sociologists and other usually forget process and plan due to involvement of several types of work natures involved in DIO. On top of it, there | |

is frequent transfer of DIO staff. Hence, orientation training, refresher training and follow-up training (for process application verification) is needed in order to assure right things done. Involvement of WUA executive and SMC in the training generates commitment and acceptance on the process.

Lesson Learned No 2

WUA is fully capable of operating, maintaining and managing canal net works up to branch canal and also main canals of similar sizes (having command area less than 2000)

Several observed cases of the operation and maintenance works done at branch level by WUA prove that WUA is quite effective in managing irrigation services at branch canal below 2000 ha. size. For this, greater effort in developing managerial, governing and technical capacity of WUA need to be applied with sufficient time for program.

Lesson Learned No 3

WUA participate in all phases of program implementation provided the implementer becomes transparent, accountable and democratic in all elements of project execution process.

One of the general tendencies of the DIO project staff is to become non transparent on program budget expenditure and items of works accomplished. Such tendency led many conflicts, distrust and mutual miss-understanding between project staff and WUA in many occasions. Some project staff has maintained very good relationship adopting transparent behaviors. One of the main reasons of low participation in of WUA civil work is also due to lack of good governance practice in managing projects by DIO and WUA – cases such as no transparency, very less accountability in project service delivery and unilateral decision making were observed.

SECTION VIII: ANNEXES

Annex – a: Staff Input

Annex – b: Manuals and Reports

Annex – c: Project Wise Accomplishment of the Training

Annex – d: Project-wise impacts of TA Assistance in WUA

Annex a: Staff Input

| S.N | Name | Filed of input | Duration |
|-----|------------------------|-------------------------------|---|
| 1 | R.R.S. Neupane | Team Leader, WMS | June 15, 2001 to September 30, 2002 |
| 2 | C. B. Shakya | Project Manager | June 15, 2001 to June 30, 2002 |
| | Dr. I. L. Kalu | Water Management Specialist | June 15, 2001 to September 30, 2002 |
| 3 | Dr. Samira Luitel | Gender Specialist | June 15, 2001 to June 30, 2002 |
| 4 | Durga Upreti | Institutional Dev. Specialist | June 15, 2001 to September 30, 2002 |
| 5 | Durga K.C | Training Co-ordinator | July 20, 2001 to September 30, 2002 |
| 6 | R. P. Subedi | Admin./Financial Manager | June 15, 2001 to September 30, 2002 |
| 7 | Roshan Neupane | Secretary/Computer Operator | June 15, 2001 to September 30,2002 |
| 8 | Umesh Pradhan | Secretary/Computer Operator | June 26, 2001 to August 20, 2002 |
| 9 | Parash Neupane | Secretary/Computer Operator | July 15, 2001 to September 2002 |
| 10 | Kedar Raut | Driver | June 15, 2001 to September 30, 2002 |
| 11 | Khadananda Baral | Driver | June 15, 2001 to September 30, 2002 |
| 12 | Dhurba Poudel | Driver | June 15, 2001 to September 30, 2002 |
| 13 | Nava Raj Thapa | House Keeper | July 6, 2001 to September 30, 2002 |
| 14 | Brajendra Subedi | House Keeper | June 26, 2001 to September 30, 2002 |
| 15 | Nava Raj Baral | Mall Boy | September 9, 2001 to September 30, 2002 |
| 16 | Madhan P. Joshi | Institutional Dev. Specialist | May 27, 2002 to September 30, 2002 |
| 17 | Hari Shrestha | Institutional Dev. Specialist | June 9, 2002 to September 30, 2002 |
| 18 | Deepak Pandey | Institutional Dev. Specialist | June 10, 2002 to September 30, 2002 |
| 19 | P. G. Shrestha | Water Management Specialist | July 22 – Nov. 30, 2001/June 3 – Sept. 30, 2002 |
| 20 | Rajeshwori Basnet | Gender Specialist | July 22 – May 2002 + one month |
| 21 | Rakesh Regmi | Water Management Specialist | Nov., 1, 2001 – August 2002 |
| 22 | Ugra Nath Jha | Field Technician | January 15, 2001 to March 15, 2002 |
| 23 | Ajit Kumar Mandal | Field Technician | Jan. 13 to 4 months, July 15, - Sept. 2002 |
| 24 | Krishna Kumal | Field Technician | July 4, 2001 to March 2002 + 2 months |
| 25 | Sobhan Tripathi | Field Technician | September 1, 2001 to October 15, 2001 |
| 26 | Krishna Pant | Field Technician | July 5 – Sept. 15, break |
| 27 | Nanda Kishore Agarwal | Quality control Engineer | October 1, 2001 to one month |
| 28 | Gita Devi Saha | WSM, Chandra Canal | Sept. 1, 2001 |
| 29 | Lalita K.C. Yadav | WSM | Sept. 1, 2001 |
| 30 | Rabina Kumari Yadav | WSM | Sept. 1, 2001 |
| 31 | Rita Kumari Yadav | WSM | August 1. 2002 |
| 32 | Reeta Kumari Chaudhari | WSM | Sept. 1, 2001 |
| 33 | Sanjeeta Thapa | WSM | Sept. 1, 2001 |
| 34 | Sushila Devi Yadav | WSM | Sept. 1, 2001 |
| 35 | Bhawana Dhakal | WSM, Kamala East | August 17, 2001 |

| S.N | Name | Filed of input | Duration |
|-----|--------------------------|---------------------------|-------------------------------|
| 36 | Manu Maya Shrestha | WSM | August 17, 2001 |
| 37 | Pramila Kumari Yadav | WSM/ Kamala East | Aug. 17, 2001 |
| 38 | Sanju Kumari Saha | WSM/ Kamala East | Aug. 17, 2001 |
| 39 | Sangeeta Dhakal | WSM/ Kamala Western | July. 30, 2001 |
| 40 | Kumud kumari Yadav | WSM/ Kamala Western | July. 30, 2001 |
| 41 | Renu Kumari Mandal | Kamala Western | July. 30, 2001 |
| 42 | Shiv Kumari Yadav | Kamala Western | July. 30, 2001 |
| 43 | Arati Kumari Singh | Manushmara-II | Aug. 14, 2001 |
| 44 | Kausalya Devi Sha | Manushmara-I | Aug. 14, 2001 |
| 45 | Saraswati Kunjeda | Mohana | Aug.17, 2001 |
| 46 | Pooja Malla | Mohana | Aug.17, 2001 |
| 47 | Geeta Kuamari Srivastava | Banganga | Oct. 04, 2001 |
| 48 | Sanju Acharya | Banganga | Oct. 04, 2001 |
| 49 | Sarita Tawal | Banganga | Oct. 04, 2001 |
| 50 | Somina Kumari Yadav | Hardinath East | Oct. 18, 2001 |
| 51 | Manakamana Devi Jha | Hardinath East | Oct. 18, 2001 |
| 52 | Renu Kumari Yadav | Hardinath West | Oct. 18, 2001 |
| 53 | Mina Kumari Yadav | Hardinath West | Oct. 18, 2001 |
| 54 | Sushia Devi Kuwar | Pathraiya | Jan. 4, 2002 |
| 55 | Bal Kumari Chaudhari | Pathraiya | Jan. 4, 2002 |
| 56 | Jagdish Thakur | ICDA | June 2001-November 2002 |
| 57 | Upendra Dhungel | ICDA | March 2002- November 2002 |
| 58 | Hari Prasad Laudari | ICDA | March 2002- November 2002 |
| 59 | Hirday Kant Mishra | ICDA | June 2001- November 2002 |
| 60 | Dev Narayan Mandal | ICDA | March 2002- November 2002 |
| 61 | Rita Shrestha | ICDA | June 2001- November 2002 |
| 62 | Rohit Kumar Yadav | ICDA | June 2001-November 2002 |
| 63 | Shyam Krishna Mandal | ICDA | June 2001-November 2002 |
| 64 | Mithilesh Kumar Jha | ICDA | March –November 2002 |
| 65 | Shree Krishan Basnet | ICDA | June 2001-November 2002 |
| 66 | Lila Bahadur Jiral | ICDA | March –November 2002 |
| 67 | Murari Mohan Adhikari | ICDA | June 2001-November 2002 |
| 68 | Yagya Prasad Panthi | ICDA | June 2001-November 2002 |
| 69 | Indra Bahadur Khatri | ICDA | June 2001-November 2002 |
| 70 | Dhruba Bahadur Bhandari | ICDA | May –November 2002 |
| 71 | Krishna Prasad Devkota | ICDA | July - Nov 15, 2002 |
| 72 | Madhav Dhakal | ICDA | July - September 2002 |
| 73 | Asta Karki | ICDA | July – November 15, 2002 |
| 74 | Bhanu Bhakta Limbu | ICDA | July –November 15, 2002 |
| 75 | Ram Prakash Singh | ICDA | July- November 2002 |
| 76 | Jaya Bahadur Thapa | ICDA | July –November 2002 |
| 77 | Samar Bahadur Rana | House Keeper | November 2001- September 2002 |
| 78 | Sushila Thapa | Secretary | June 2001- June 2002 |
| 79 | Mohini Joshi | Secretary | July –November 2002 |
| 80 | Sagar Man Sainju | Assistant Finance Officer | August 2001- November 2002 |
| 81 | Jay Shankar Lal (50%) | Project Coordinator | June 2001- November 2002 |

Annex – b: Manuals and Reports

| S.N | Name of the manuals | Prepared by | Main contents used |
|---------------|--|--|---|
| A 1 | <u>Manuals</u> Gender and ISF/MF Collection , Awareness Campaigns for Water User | <ul style="list-style-type: none"> • Dr. Samira Luitel, Gender Specialist (G.S) • Durga Uprety Institutional Development Specialist (IDS) | <ul style="list-style-type: none"> • Concept of IMTP ISF need and process of collection • Participation and role of women in ISF collection. • Action plan for collecting ISF |
| 2 | Gender Awareness Training for WUA Male and Female | <ul style="list-style-type: none"> • Dr. Samira Luitel • Mrs. Rajeshori Basnet, Gender Specialist (G.S) • R.R.S. Neupane Team Leader IMTP | <ul style="list-style-type: none"> • Identification of Natural and social difference between male and female • Analysis of daily duty of male and female • Status of women participation in WUA |
| 3 | WUA Leadership Skill Development Training Manual | <ul style="list-style-type: none"> • D. P. Uprety • Durga K.C, Training Co-ordinator • R.R.S. Neupane | <ul style="list-style-type: none"> • Leaders, planning, organizing, directing communicating, motivating, controlling and monitoring and evaluation skills |
| 4 | On-Farm Water Management Training Manual | <ul style="list-style-type: none"> • R.R.S. Neupane | <ul style="list-style-type: none"> • Soil, water and plant relationship • Tertiary system management • Irrigation technique to different major crops |
| 5 | Irrigation Service Fee Collection Training Manual | <ul style="list-style-type: none"> • D. P. Uprety • D. Uprety • R.R.S. Neupane | <ul style="list-style-type: none"> • Irrigation policy on ISF • Concepts and needs of ISF. • ISF management process • Action plan for ISF collection |
| 6 | Canal Operation Plan | <ul style="list-style-type: none"> • Dr. I. L. Kalu Water Management Specialist (WMS) | <ul style="list-style-type: none"> • Know your system. Irrigation scheduling and work distribution. Monitoring and reporting. Water measurement |
| 7 | Initial Canal O&M Training Manual for Canal Management Workforce of WUA | <ul style="list-style-type: none"> • R.R.S. Neupane (IMS – TL) (Irrigation Management specialist – TL) | <ul style="list-style-type: none"> • Participation process for irrigation schedule development and use. • Water distribution Process for equity • Participatory maintenance need identification • Canal maintenance technique • Policy formulation workshop on O&M |

| S.N | Name of the manuals | Prepared by | Main contents used |
|------------|--|--|--|
| 8 | Water Conflict Resolution Training Manual | <ul style="list-style-type: none"> • Durga K.C • Durga Uprety • R.R.S. Neupane | <ul style="list-style-type: none"> • Concept of conflict. Effects of conflict. Forms of water related conflict. Resolution of conflicts |
| 9 | Canal Maintenance Plan | <ul style="list-style-type: none"> • Dr. I. L. Kalu | <ul style="list-style-type: none"> • Know your canal networks, maintenance survey, cost estimate, action plan, policy and Monitoring of maintenance activities. |
| 10 | Project Benefit Monitoring and Evaluation | <ul style="list-style-type: none"> • R.R.S. Neupane | <ul style="list-style-type: none"> • Benefits planned in the project • Development service committed by DIO • Development service managed by WUA • Development service used by users • Result evaluation exercise |
| 11 | Training of Trainer Manual | <ul style="list-style-type: none"> • R.R.S. Neupane | <ul style="list-style-type: none"> • Trainings as solution to problem. Training objective setting, lesson plan development training methods and aids, evaluation technique |
| 12 | IMTP – Process Orientation Training Book | <ul style="list-style-type: none"> • R.R.S. Neupane | <ul style="list-style-type: none"> • IMTP objectives and activities. Project cycles and implementation guideline |
| 13 | Interaction Process Guiding Manual | <ul style="list-style-type: none"> • M. Joshi, Institutional Development Specialist (IDS) • Durga Uprety • Durga K.C. | <ul style="list-style-type: none"> • Concept and interaction objectives • Inter process, participant selection |
| 14 | Water Measurement Methods to CMWF | <ul style="list-style-type: none"> • R.R.S. Neupane | <ul style="list-style-type: none"> • Current meter method, Flume method • Float method, Ring infiltrometer methods. |
| B | Reports and Proceedings | | |
| 1 | Quarterly Report of IMTP TA Activity – (4) | <ul style="list-style-type: none"> • R.R.S. Neupane | <ul style="list-style-type: none"> • Quarterly progress of planned activities |
| 2 | Project Completion Report | <ul style="list-style-type: none"> • R.R.S. Neupane | <ul style="list-style-type: none"> • Overall project completion status |
| 3 | PD Study Report | W.M.S.P, IAAS | IMTP Process documentation of Panchakanya Irrigation Subsystem |
| 4 | Crop Data Collection from IMTP | C. P. Joshi | Crop yield, cropping pattern and farm income study of IMTP phase – II |

| S.N | Name of the manuals | Prepared by | Main contents used |
|-----|---|---|--|
| | | | sites |
| 5 | Proceedings of workshop on ISF | Durga K.C | Proceedings of workshop on formulation strategies for ISF collection |
| 6 | <u>Job Accomplishment Report</u> | | |
| | a. Water management section | • Dr. I. L. Kalu | • Water management report |
| | b. Training section | • Durga K.C | Overall training report |
| | c. WUA development section | • Durga Uprety | • ISF/MF and WUA report |
| | d. Gender section | • Dr. Samira Luitel | • Gender report |
| | e. Benefit evaluation section | Madhav Joshi | Project benefit report |
| | f. Assignment Completion Report | M. Kumar and S. K. Mandal, ICDA | Field report on WUA, Hardinath |
| | g. Assignment Completion Report | Rita Shrestha, ICDA | Field report on WUA, Kamala East |
| | h. Assignment Completion Report | Rohit K. Yadav, ICDA | Field report on WUA, Kamala West |
| | i. Assignment Completion Report | Y. P. Panthi, MM Adhikari, ICDA | Field report on WUA, Banganga |
| | j. Assignment Completion Report | H. K. Mishra, D.N. Mandal, ICDA | Field report on WUA, Kamala West |
| | k. Assignment Completion Report | S.K. Basnet, L. B. Jirel, ICDA | Field report on WUA, Manusmara I&II |
| | l. Assignment Completion Report | I. B. Khatri, ICDA | Field report on WUA, Mohana |
| | m. Assignment Completion Report | J. Khakur, U. Dhungel, H.P. Jaudari, ICDA | Field report on WUA, Chandra Nahar |

Annex – c: I. Project Wise Accomplishment of the Training

| S. N. | ACTIVITIES ACCOMPLISHED | SITE | DATE | NO. OF PAC. | TOTAL PARTICIPANTS | | | INVOLVED CONSULTANTS |
|-------|---|---------------|------------------------|-------------|--------------------|--------|-------|----------------------|
| | | | | | Male | Female | Total | |
| 1. | Awareness Campaign | Banganga | August 18-21, 2001 | 3 | 169 | 81 | 250 | KC, DU, SL, RB |
| 2. | IMTP Process Orientation | Banganga | Oct 14, 2001 | 1 | 27 | - | 27 | RRSN |
| 3. | Initial O&M Training | Banganga | Nov 23-26, 2001 | 1 | 28 | - | 28 | RRSN/RR |
| 4. | Water Measurement Training | Banganga | July 25 – Aug 10, 2001 | 1 | - | - | 9 | IL Kalu/PG |
| 5. | Calibration Work | Banganga | July 25 – Aug 10, 2001 | 12 points | - | - | 9 | IL Kalu/PG |
| 6. | Branch wise Awareness Training | Banganga | November | 5 | | | 250 | WUA/ICDA |
| 7. | CMP Data Collection | Banganga | Dec 14-18, 2001 | 1 | 39 | - | 39 | ILK/FT |
| 8. | On Farm Water Management | Banganga | Jan 23-26, 2002 | 1 | 25 | - | 25 | RRSN |
| 9. | Gender Awareness Training | Banganga | Jan 12-13, 2002 | 2 | 10 | 50 | 60 | SL/RB |
| 10. | WUA Workshop | Banganga | Feb 7, 2002 | 1 | 16 | - | 16 | DU/DKC |
| 11. | WUA Network and Linkages Workshop with DADC | Banganga | Feb 8, 2002 | 1 | 31 | - | 31 | KC/DU |
| 12. | G. Leadership Development Training | Banganga | Feb 2-5, 2002 | 2 | 4 | 50 | 54 | SL/RB |
| 13. | Gender Leadership Development Training | Banganga | May 21-24, 2002 | 2 | 3 | 47 | 50 | SL |
| 14. | Leadership Development Training | Banganga | May 27-30, 2002 | 2 | 56 | 4 | 60 | DKC |
| 15. | Conflict Resolution Training | Hardinath | Dec 25-28, 2001 | 2 | 41 | 14 | 55 | KC/DU |
| 16. | Gender Awareness Training | Hardinath | August 28-31, 2001 | 2 | 1 | 69 | 70 | SL |
| 17. | Gender Research Application Workshop | Hardinath | Sept. 26-29, 2001 | 1 | - | 12 | 12 | SL |
| 18. | IMTP Process Orientation | Hardinath | Oct. 5, 2001 | 1 | 10 | - | 10 | RRSN |
| 19. | Gender Awareness Campaign | Hardinath | Oct 15-16, 2001 | 2 | 60 | 125 | 185 | SL/DU |
| 20. | Gender Leadership Dev. Training | Hardinath | Dec 25-28, 2001 | 2 | 3 | 47 | 50 | SL/RB |
| 21. | CMP Data Collection | Hardinath | April 10-13, 2002 | 1 | 18 | - | 18 | UJ/KK |
| 22. | O&M Training | Hardinath (E) | March 7-10, 2002 | 1 | 27 | 1 | 28 | RR/AKM |
| 23. | O&M Training | Hardinath (W) | March 24-27, 2002 | 1 | 28 | - | 28 | RR/AKM |
| 24. | Gender Cross Visit | Hardinath | | 1 | 4 | 37 | 41 | SL/RB |
| 25. | Water Management Skilled Development Training | Hardinath | May 7-9, 2002 | 1 | 23 | 2 | 25 | RR |
| 26. | Conflict Resolution | Chandra Nahar | Sept 5-16, 2001 | 6 | 127 | 8 | 135 | KC/DU |
| 27. | IMTP Process Orientation | Chandra Nahar | Sept 25, 2001 | 1 | 14 | - | 14 | RRSN |
| 28. | WUA Network and Linkages Workshop with DADC | Chandra Nahar | Nov. 3 - 5, 2001 | 1 | 21 | - | 21 | KC |

| S. N. | ACTIVITIES ACCOMPLISHED | SITE | DATE | NO. OF PAC. | TOTAL PARTICIPANTS | | | INVOLVED CONSULTANTS |
|-------|---------------------------------------|----------------|---------------------|-------------|--------------------|--------|-------|----------------------|
| | | | | | Male | Female | Total | |
| 29. | Gender Awareness Campaign | Chandra Nahar | Nov. 5-7, 2001 | 3 | 100 | 67 | 167 | SL//DU |
| 30. | Initial O&M Training | Chandra Nahar | Nov. 5-8, 2001 | 1 | 29 | - | 29 | RRSN/RR |
| 31. | Gender Awareness Training | Chandra Nahar | Nov. 8-12, 2001 | 3 | 34 | 56 | 90 | SL/RB |
| 32. | Water Measurement Training | Chandra Nahar | September | 1 | - | - | 23 | IL Kalu/PG |
| 33. | Calibration Work | Chandra Nahar | September | 12 points | - | - | 23 | IL Kalu/PG |
| 34. | Gender Leadership Dev. Training | Chandra Nahar | Jan 22-25, 2002 | 1 | - | 26 | 26 | RB/SL |
| 35. | ISF Collection Training | Chandra Nahar | March 14 - 19, 2002 | 3 | 87 | 11 | 98 | DU/DKC |
| 36. | CMP Data Collection | Chandra Nahar | April 18-20, 2002 | 1 | 38 | - | 38 | ILK/KP |
| 37. | Water Mgmt. Skill Dev. Training | Chandra Nahar | March 20-22, 2002 | 1 | 15 | 11 | 26 | RR/AKM |
| 38. | COP Preparation | | | | | 31 | 31 | IL |
| 39. | ISF Collection Training | Manusmara | Sept 25-30, 2001 | 2 | 46 | 2 | 48 | KC/DU |
| 40. | Water Measurement Training | Manusmara | Oct 4 -17, 2001 | 1 | - | - | 24 | IL Kalu/PG |
| 41. | Calibration Work | Manusmara | Oct 4 -17, 2001 | 12 points | - | - | 24 | IL Kalu/PG |
| 42. | Initial O&M Training | Manusmara (I) | Dec 26-29, 2001 | 1 | 32 | - | 32 | RR/YPP |
| 43. | Initial O&M Training | MIS (I) | Jan 2-5, 2002 | 1 | 25 | - | 25 | RR/KP |
| 44. | Initial O&M Training | Manusmara (II) | Jan 20-23 | 1 | 32 | - | 32 | RR/M |
| 45. | Initial O&M Training | Manusmara (II) | Jan 25-28, 2002 | 1 | 32 | - | 32 | RR/Jha |
| 46. | Conflict Resolution Training | Manusmara | Jan 7-10, 2002 | 2 | 55 | 5 | 60 | DU/KC |
| 47. | IMTP Process | Manusmara | Dec 30, 2001 | 1 | 6 | - | 6 | RRSN |
| 48. | G. Leadership Development Training | Manusmara | Feb 11-14, 2002 | 2 | 4 | 50 | 54 | SL/RB |
| 49. | CMP Training | Manusmara (II) | March 19-23, 2002 | 1 | 30 | - | 30 | ILD/UJ |
| 50. | CMP Data Collection | Manusmara (II) | April 16-19, 2002 | 1 | 18 | - | 18 | UJ/KK |
| 51. | Water Management Development Training | Manusmara | May 29-31, 2001 | 1 | 14 | 12 | 26 | RR |
| 52. | Gender Awareness Campaign | Manusmara (I) | June 10-11, 2002 | 2 | 49 | 75 | 124 | SL/RB |
| 53. | Gender Awareness Campaign | Manusmara (II) | June 12-13, 2002 | 2 | 54 | 62 | 116 | SL/RB |
| 54. | Initial O&M Training | East Kamala | Nov 9-12, 2001 | 1 | 29 | - | 29 | RRSN/RR |
| 55. | Conflict Resolution | East Kamala | Nov 23-28, 2001 | 3 | 80 | 6 | 86 | KC/DU |
| 56. | IMTP Process | Kamala | Dec 31, 2001 | 1 | 16 | - | 16 | RRSN |
| 57. | O&M Training | West Kamala | Feb 1-4, 2002 | 1 | 21 | 5 | 26 | RR/AKM |
| 58. | Gender Awareness Campaign | East Kamala | March 13-16, 2002 | 4 | 85 | 82 | 167 | SL/RB |
| 59. | Gender Awareness Campaign | West Kamala | March 18-21, 2002 | 4 | 77 | 112 | 189 | SL/RB |

| S. N. | ACTIVITIES ACCOMPLISHED | SITE | DATE | NO. OF PAC. | TOTAL PARTICIPANTS | | | INVOLVED CONSULTANTS |
|-------|---|---------------------|---------------------|-------------|--------------------|--------|-------|----------------------|
| | | | | | Male | Female | Total | |
| 60. | ISF Collection Training | East Kamala | March 21-22, 2002 | 1 | 26 | 4 | 30 | DU/DKC |
| 61. | ISF Collection Training | West Kamala | March 23-24, 2002 | 1 | 38 | 5 | 43 | DU/DKC |
| 62. | Conflict Resolution Training | West Kamala | March 26-27, 2002 | 1 | 30 | 5 | 35 | DKC/DU |
| 63. | Water Management Skilled Development Training | Kamala (East) | May 19-21, 2002 | 1 | 22 | 3 | 25 | RR |
| 64. | Gender Awareness Training | Mohana | Jan 6-8, 2002 | 3 | 15 | 75 | 90 | SL/RB |
| 65. | Gender Leadership Dev. Training | Mohana | March 26-27, 2002 | 1 | 2 | 30 | 32 | SL/RB |
| 66. | Leadership Dev. Training | Mohana | April 11-14, 2002 | 2 | 46 | 16 | 62 | DKC/DU |
| 67. | Conflict Resolution Training | Mohana | April 15-18, 2002 | 2 | 54 | 16 | 70 | DKC/DU |
| 68. | OFWM Training | Mohana | April 11-13, 2002 | 1 | 14 | 11 | 25 | RR/AKM |
| 69. | O&M Training | Mohana | April 16-18, 2002 | 1 | 16 | 7 | 23 | RR/AKM |
| 70. | Gender Cross Visit | Mohana | | 1 | - | 40 | 40 | RB |
| 71. | Conflict Resolution Training | Mohana | May 7-8, 2002 | 1 | 24 | 10 | 34 | DKC/DU |
| 72. | ISF Collection Training | Mohana | May 9-12, 2002 | 2 | 36 | 35 | 71 | DKC/DU |
| 73. | Leadership Dev Training | Khageri | Jan 20-21, 2002 | 1 | 27 | 7 | 34 | DU/KC |
| 74. | Leadership Dev Training | Panchakanya | Jan 22-23, 2002 | 1 | 17 | 6 | 23 | KC/DU |
| 75. | O&M Training | Panchakanya | March 13-16, 2002 | 1 | 16 | 10 | 26 | RR/AKM |
| 76. | Interaction Workshop with DADC | Panchakanya/Khageri | June 10, 2002 | 1 | 30 | 3 | 33 | DKC |
| 77. | Formulation of ISF and MF Collection Strategies Regional Workshop | Bharatpur | Oct 10-11, 2001 | 1 | 19 | 23 | 42 | KC/TL/PM/DU |
| 78. | Benefit Monitoring and Evaluation Training | Banganga | August 8-10, 2002 | 1 | 37 | 2 | 39 | DKC/M.Joshi |
| 79. | Conflict Resolution Training | Banganga | August 11-12, 2002 | 1 | 30 | 6 | 36 | DKC/M.Joshi |
| 80. | ISF collection Training | Banganga | August 14-15, 2002 | 1 | 34 | 2 | 36 | DKC/M.Joshi |
| 81. | O&M Training for WUA | Pathraiya | August 7 -10, 2002 | 1 | 22 | 2 | 24 | PG/AKM |
| 82. | O&M Training for WUA | Khageri | August 20-23, 2002 | 1 | 16 | 10 | 26 | PG/AKM |
| 83. | O&M Training for WUA | W. Gandak | August 13-16, 2002 | 1 | 25 | - | 25 | PG/AKM |
| 84. | IMTP process | Mohana | August 15, 2002 | 1 | 18 | - | 18 | ILK/KP |
| 85. | COP data collection/Water Measurement/ Calibration | Mohana | August 16-20, 2002 | 1 | 22 | - | 22 | ILK/KP |
| 86. | BME | CIS | August 21- 23, 2002 | 1 | 30 | - | 30 | MJ/HS |
| 87. | BME | HIS | Sept. 2-4, 2002 | 1 | 28 | 2 | 30 | MJ/HS |
| 88. | BME | MIS | Sept. 6-8, 2002 | 1 | 35 | - | 35 | MJ/HS |
| 89. | Leadership Development Training | CIS | Sept. 4-5, 2002 | 1 | 27 | - | 27 | DU/DKC |

| S. N. | ACTIVITIES ACCOMPLISHED | SITE | DATE | NO. OF PAC. | TOTAL PARTICIPANTS | | | INVOLVED CONSULTANTS |
|--------------|---|--------------------|---------------------|-------------|--------------------|--------|-------------|----------------------|
| | | | | | Male | Female | Total | |
| 90. | ISF Collection Training | HIS | Sept. 6-7, 2002 | 1 | 39 | 3 | 42 | DU/DKC |
| 91. | ISF Collection Training | BIS | Sept. 9-12, 2002 | 2 | 63 | - | 63 | DKC/DU |
| 92. | Water Measurement Training | MIS | Sept. 12 – 13, 2002 | 1 | 19 | - | 19 | PG/KP |
| 93. | Cross Visit | CIS | Sept. 2 – 7, 2002 | 1 | 1 | 40 | 41 | DB/UD |
| 94. | Orientation/TOT on Interaction program to NFIWUAN | Bharatpur, Chitwan | June 13 – 14, 2002 | 1 | 10 | 3 | 10 | DKC |
| Total | | | | 71 | 625 | | 4576 | |

II. ISF Awareness Campaign

| S.N | Site | Date | Event | Total Participants | | |
|--------------|----------------|--|-----------|--------------------|------------|-------------|
| | | | | Male | Female | Total |
| 1 | Chandra Nahar | Feb. 6, 2002-09-25 Feb. 25 – 26, 2002 March 6 – 11, 2002 | 5 | 248 | 9 | 257 |
| 2 | Kamala East | March 13, 14, 15, 16, 19 and 25, 2002 | 6 | 185 | 138 | 323 |
| 3 | Kamala West | March 18, 19, 20, 21 and 23, 2002 | 5 | 158 | 84 | 242 |
| 4 | Hardinath East | May 2 – 4, 2002 | 3 | 151 | 35 | 186 |
| 5 | Hardinath West | April 20, 2002 April 30, 2002 May 5, 2002 | 3 | 175 | 10 | 185 |
| 6 | Manusmara I | March 21, 23, 24 April 10 – 11, 2002 | 5 | 212 | 24 | 236 |
| 7 | Manusmara II | May 10, 12, 13, 24 and 28, 2002 | 5 | 184 | 38 | 222 |
| 8 | Banganga | Nov. 4, 5, 6, 7 and 12, 2001 | 5 | 283 | 66 | 349 |
| 9 | Mohana | March 18, 19, 21, 22 and 23, 2002 | 5 | 135 | 117 | 252 |
| Total | | | 42 | 1731 | 521 | 2252 |

III. Leadership Development Training under additional program

| S.N | Site | Date | Event | Total Participants | | |
|--------------|------------------|---|-----------|--------------------|-----------|-------------|
| | | | | Male | Female | Total |
| 1 | Chandra Nahar | May 26 – 28, 2002 May 29 – 31, 2002 June 2 – 4, 2002 June 5 – 7, 2002 June 8 – 10, 2002 June 11 – 13, 2002 June 14 – 16, 2002 June 17 – 19, 2002 | 8 | 201 | 3 | 204 |
| 2 | Kamala East | June 2 – 4, 2002 June 1 – 3, 2002 June 7 – 9, 2002 June 11 – 13, 2002 June 29 – July 1, 2002 | 12 | 288 | 22 | 310 |
| 3 | Kamala West | May 28 – 30, 2002 June 26 – 28, 2002 June 12 – 14, 2002 June 19 – 27, 2002 July 1 – 3, 2002 August 30 – Sept. 1, 2002 | 6 | 129 | 16 | 145 |
| 4 | Hardinath East | June 10 – 12, 2002 June 13 -15, 2002 June 19 – 21, 2002 | 3 | 70 | 5 | 75 |
| 5 | Hardinath West | May 30 – June 1, 2002 June 9 – 11, 2002 June 13 – 15, 2002 | 3 | 69 | 6 | 75 |
| 6 | Manusmara I & II | June 5 – 7, 2002 June 9 – 11, 2002 June 26 – 28, 2002 | 11 | 258 | 0 | 258 |
| 7 | Banganga | June 3 – 5, 2002 June 10 – 12, 2002 | 8 | 206 | 0 | 206 |
| 8 | Mohana | August 7 – 9, 2002 August 12 – 14, 2002 August 14 – 16, 2002 August 17 – 19, 2002 August 28 – 30, 2002 August 31 – Sept. 2, 2002 Sept. 3 – 5, 2002 | 7 | 123 | 42 | 165 |
| Total | | | 58 | 1344 | 94 | 1438 |

IV. Awareness Program Conducted by NFIWUAN

| S.N | Site | Date | Event | Total Participants | | |
|--------------|----------------|------------------------------|-----------|--------------------|------------|-------------|
| | | | | Male | Female | Total |
| 1 | Chandra Nahar | May 27 – 30, 2002 | 4 | 177 | 45 | 222 |
| 2 | Kamala East | - | - | - | - | - |
| 3 | Kamala West | May 21 – 30 and June 5, 2002 | 13 | 714 | - | 714 |
| 4 | Hardinath East | May 22-23, 2002 | 2 | 69 | 36 | 105 |
| 5 | Hardinath West | May 24 -25, 2002 | 2 | 68 | 32 | 100 |
| 6 | Manusmara –I | May 22 – 24, 2002 | 3 | 127 | 18 | 145 |
| 7 | Manusmara –II | May 25 – 27, 2002 | 3 | 135 | 26 | 161 |
| 8 | Mohana | May 21 – 26, 2002 | 6 | 212 | 88 | 300 |
| Total | | | 33 | 1502 | 245 | 1747 |

V. Leadership/ Interaction Program Conducted by NFIWUAN

| S.N | Site | Date | Event | Total Participants | | |
|-----|------------------|--------------------|-------|--------------------|--------|------------|
| | | | | Male | Female | Total |
| 1 | Kailali District | June 8 - 9, 2002 | 1 | | | 51 |
| 2 | Dhanusha | March 15- 16, 2002 | 1 | | | 50 |
| 3 | Sarlahi | June 28 – 29, 2002 | 1 | | | 64 |
| 4 | Parbat | Oct. 11 – 12, 2001 | 1 | | | 44 |
| 5 | Bardia | Nov. 5 – 6, 2001 | 1 | | | 45 |
| 6 | Illam | Sept. 1 – 2, 2002 | 1 | | | 53 |
| 7 | Ghorkha | Oct. 5 – 6, 2001 | 1 | | | 60 |
| 8 | Bhaktapur | Sept. 6 – 7, 2002 | 1 | | | 100 |
| 9 | Rupandehi | Sept. 8, 2002 | 1 | | | 172 |
| 10 | Jhapa | Oct. 4 – 5, 2001 | 1 | | | 85 |
| 11 | Chitwan | Oct. 5, 2001 | 1 | | | 87 |
| 12 | Makawanpur | Dec. 2 – 3, 2001 | 1 | | | 40 |
| 13 | Nawalparasi | Dec. 10 – 11, 2001 | 1 | | | 42 |
| | Total | | | | | 893 |

Annex d: Project-wise impacts of TA Assistance in WUA

The following activities have been carried out under the WUA assistance program in all IMTP sites:

A. Chandra Nahar Irrigation Subproject

| S.N | Activity | Status |
|-----|--|---|
| 1 | Materials support to WUA Office establishment | WUA offices (main committee including four branch committees, (i.e., <i>Ordraha, Maleth, Baluwa & Barmajhiya</i>) have been established. |
| 2 | Operationalizing bank account | One committee and nine branch canal committees opened and operated the bank account on their names. |
| 3 | Establishment of the regular meeting and minuting. | One committee and ten branch canal committees have started regular meetings. |
| 4 | Establishment of record keeping | One main committee and ten branch canal committees established records. |

B. Banganga Irrigation Subproject

| S.N | Activity | Status |
|-----|---|---|
| 1 | WUA formation | One main, 16 branches and 160 <i>tole</i> committees have been formed. |
| 2 | Establishment of WUA functional office | WUA office for one main, 16 branches, and 2 minor committees (<i>Kusma & Harnampur</i>) have been established. |
| 3 | Materials support to WUA office | About 13 branch canal committees were provided materials support to start daily official work. |
| 4 | Operationalizing bank account | One main committee and 10 branch committees opened and operated bank account on their names. |
| 5 | Establishment of regular meeting and minuting | One main committee and 16 branch committees have started regular meetings. |
| 6 | Establishment of record keeping system | One main committee and 16 branch committee have been established. |
| 7 | Mobilization of users for canal cleaning | About 6 branches and 140 MC including MFDs have cleaned the canals through the farmers' participation. Total estimated amount of farmers' contribution in the canal cleaning is worth of Rs. 16,200,000.0 |
| 8 | Environment protection by grass seeding | About 200 kg stylo grass seeds have been sown on the embankment of the reservoir to generate the income as well as conservation of reservoir. |

C. Mohana Irrigation Sub Project

| S.N | Activity | Status |
|-----|--|---|
| 1 | Materials support to WUA office establishment | Materials were provided to one <i>malakheti</i> branch to establish functional office. |
| 2 | Operationalizing bank account | <i>Malakheti</i> branch committee has been started bank account operation. |
| 3 | Establishment of the regular meeting and minuting | One main committee including two branches, 20 <i>Prashaka</i> (outlet) committees under the <i>Malakheti</i> and 17 <i>Prashaka</i> (outlet) committee under the <i>Gulariya</i> have been started the monthly meeting. |
| 4 | Establishment of record keeping | One main committee and two branch committee have been established. |
| 5 | Increasing farmers' participation in the canal cleaning work | Main and branch canals were cleaned through the farmers' participation. |
| 6 | Hand-over of the irrigation system to WUA | Main canal and <i>Malakheti</i> branch canal were handed over to the WUA respectively. |

D. Manusmara Irrigation Sub Project.

| S.N | Activity | Status |
|-----|--|--|
| 1 | Materials support to WUA office establishment | Materials supports were provided to 17 block committees in the phase-I and 16 block committees in the phase-II to establish WUA office. |
| 2 | Operationalizing bank account | One main & 17 block committees of the phase-I and one main & 20 block committees of the phase-II operated the bank account in their names. |
| 3 | Establishment of regular meeting and minuting. | One main committee, 17 block committees of the phase- I and one main committee, & 23 block committees of the phase- II established the monthly meeting and discussion. |
| 4 | Establishment of record keeping. | One main committee, 17 blocks committees of the phase- I and one main committee, & 23 block committees of the phase- II started to keeping written record. |
| 5 | Hand-over of the irrigation system to the WUA | One main canal and 17 blocks of the phase- I and 16 blocks of the phase - II were handed over to the WUA. |

E. Hardinath Irrigation Sup Project.

| S.N | Activity | Status |
|-----|--|---|
| 1 | WUA formation | One main committee of each irrigation system (i.e. HISE, & HISW) including 13 branches committees of the Eastern canal and 21 branch committees of the western canal formed the WUA respectively. |
| 2 | Materials support to WUA office establishment | Materials supports were provided to main committee of HISE and HISW to establish the WUA functional office. |
| 3 | Establishment of regular meeting and minuting. | The regular monthly meetings have been started in both main committee of HISE and HISW. |
| 4 | Operationalizing the bank account | Each main committee of HISE and HISW started to operate the bank account in their names. |
| 5 | Fruit saplings distribution and plantation | A total of 1675 fruits including fodder saplings have been planted in the HISE and HISW irrigation system. |

F. Kamala Eastern Irrigation Subproject.

| S.N | Activity | Status |
|-----|--|--|
| 1 | WUA office establishment | Seven branches and 15 minor committees have established WUA office. |
| 2 | Materials support to the establishment of WUA's office | Materials supports were provided to the branch and two minor committees to operate WUA office. |
| 3 | Establishment of regular meeting and minuting. | One main, seven branch, and fourteen minor committees have started monthly meeting. |
| 4 | Operationalizing bank account | One main, seven branch, and fifteen minor committees have opened and operated their own bank account. |
| 5 | Fruit saplings distribution and plantation | About 1500 mango trees have been planted in the Kamala East. |
| 6 | Establishment of the written record Keeping | One main, seven branch, and sixteen minor committees have started keeping the written records. |
| 7 | Hand-over of the irrigation system to the WUA | Bandipur I and II branch canals were handed over to the WUA. |
| 8 | Farmers participation in repair, maintenance and cleaning of the canal | Farmers of Siriha, Suathor, Laxmi Nagar branch, Rajokhori, Bandipur I & II minor have repaired, maintained and cleaned their respective canal worth Rs. 25,0000.00 |

G. Kamala Western Irrigation Sup Project.

| SN | Activity | Status |
|----|---|---|
| 1 | WUA office establishment | One main committee including five branch canal committees have established the WUA office. |
| 2 | Office materials support to WUA | Materials supports were provided to the <i>Ragunath</i> and <i>Khageri</i> branch to establish the WUA functional office. |
| 3 | Establishment of the regular meeting and minuting | Main canal committee including five branch canal committees have started the monthly meeting. |
| 4 | Operationalizing the bank account | Main committee has operated bank account in name. Whereas, five branch canals are in the process of opening account. |
| 5 | Fruit saplings distribution and plantation | About 2500 mangoes and 800 jack fruit saplings were planted in the Kamala western. |
| 6 | Establishment of written record keeping | One main and five branch committees have established the written records keeping. |
| 7 | Hand-over of the irrigation system to the WUA | <i>Ragunathpur</i> branch and <i>Bismbhara</i> minor of the Kamala west were handed over to the WUA. |