

**Environmental Rehabilitation in North West Frontier Province and Punjab
(ENRP)
ALA/92/25**

DRAFT

Final Project Evaluation Mission Report

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Glossary and Abbreviations

1 Summary

Principal Features

1 month after the Environmental Rehabilitation for North West Frontier Province and Punjab (ERNP) project had finished an “final evaluation mission” was fielded consisting of the following persons:

Taco de Vries, Economist-Team Leader

Dr. Saleha Begum, Social Organization Expert,

Dr. Piet van der Poel, Natural Resources Management Expert,

Dr. M. Ashraf Sahibzada-Training and Enterprise Development Expert

The Mission started work on the 21 of July 2004 with a 1 month stay in Pakistan to inspect the available document, make field visits, discussions with partners in the project and initial report writing. At the end of the stay in Pakistan, on the 17th of August, an Aide Memoir was presented and discussed with the Partners in the project and other interested persons. A (Draft) Final Report was presented and discussed at the EU HQ in Brussels on the 27th of August.

The Methodology used for the study was chosen having in mind the relatively short time in which the Mission would have to evaluate a project of seven years duration, where no baseline study was available and during the project life no indicators were adopted for measuring impacts. Thus the methodology was to collect and analyze available data, judge the quality and relevance of the interventions in the field, compare with other projects and discuss interventions and approaches with all partners.

The objective of the Mission were stated in the ToR of the Mission as show in ANNEX C to this report. This report has been written following the lay-out requested in the ToR.

Table 1: Summary Findings

Objective of the study	Finding	Ref to chapter
To assess the extent to which the objectives of the project as laid down in the Financing Agreement and its focus on the full involvement of the local population with particular reference also to the women, have been met in the three Sub projects.	The degree of involvement of local population varies between the three sub-projects due to use of different organizational approaches. Women’s participation could be improved in Galiat sub-project. More concerted effort was needed to involve women in Dir Kohistan. For NRM, the project has contributed considerably to reaching the project’s wide objectives. The NRM related objectives were only quantified for some forestry and soil conservation activities and have largely been achieved, but sustainability of some of the measures can be questioned. Full involvement of the local population has largely been achieved for men and partially for women in the intervention villages, covering about 465,000 people. Women were well reached	4,5 Beginnin g Ch. 6 NRM: beginning Ch.5

Objective of the study	Finding	Ref to chapter
	in MKKS, and to a limited degree in Galiat and DK	
To assess the concrete results in the field delivered by each sub-project against overall work plans and budgets presented by the PMUs & IUCN-P.	Each subproject produced annual work plans and budgets, and their targets appear to have been largely reached.	NRM Ch.5 various headings
To assess the current status of the expenditures and its correct utilization in each Sub-project and in IUCN-P, against the budgetary allocations and the disbursement by the EC, by the GOP and by the local communities	Funds remaining amount to Euro 7.326.874,-. These funds are de-committed by the EU. Funds have been correct used by IUCN and against the allocations by the EC	Ch.7
To evaluate the project funds expenditure control, audit, transparent reporting and replenishments mechanism.	Bi-annual audits in 3 PMUs and IUCN ensured proper utilization of funds. However, the accounting codes were not the same in the PMUs, and the logic of the coding system used was unclear. Beneficiaries contributed twice as much as the GoP. Replenishments mechanism caused serious delays (2 to 3 years)	Ch.7
To assess the actual role of each PMU partners in each Sub-project in the preparation and implementation of the project activities. A particular attention should be given to the assessment of the working environment inside each PMUs and to efficiency and effectiveness of its decision-making mechanisms and timely delivery of goods and services.	PMU of MKKS worked more efficiently in decision-making and delivery of goods and services. PMU's of Galiat and DKP performed less efficiently due to management complexities and one of the earlier Project Director's negative attitude towards working with communities including men and women. PMU's experienced varying degrees of difficulties, especially during the initial years of the project. Some were related to authority conflicts between staff members and organizations involved, others to disagreements of some of them with the project's approach. Working conditions in DK became more difficult due to causes outside the project. During the later years of the project collaboration within the PMUs improved. NRM interventions were in general effective. Some were introduced late. Staff was in general well qualified and often highly motivated. True to its participatory character, the project succeeded in delivery of goods and services to the beneficiaries without undue delays.	Ch.4,5,6 NRM: Ch. 5, various headings NRM: Ch. 2, maybe move to Ch. 4 (efficiency)
To judge the quality of the project outputs provided by the different partners in the three Sub-projects management units (EC TA, IUCN-P, Government and local communities).	Outputs of social organizing were reasonable but were hampered by administrative problems such as the disruption in the IUCN contract and so on. NRM: projects' outputs were in general of good quality, some technical shortcomings were observed.	NRM: Ch. 5, various headings, especially soil conservation
To review ERNP strategies and assess role of RU in terms of coordination and provision of technical support services to the project. IUCN-P actual capacity in playing a central role in the design and implementation of the project.	The quality of the Social Organization Strategy is good. But it was developed two years after the Project implementation begun (January 1997). The strategy should have been in place and project staff trained on the approach prior to starting community mobilization activities.	Ch.4,5

Objective of the study	Finding	Ref to chapter
<p>with a particular focus on the role and performance of the IUCN Resource Unit, with respect to the following;</p> <p>Preparing of strategy documents related to Natural Resource Management, Social Organization, Training Planning Monitoring and Evaluation</p> <p>Mobilization of local communities through social organization</p> <p>Training of local staff and community organization members</p> <p>Developing effective and sustainable linkages between the line departments/ agencies and the social organizations.</p> <p>Set up field monitoring organizations and conduct independent annual monitoring missions and reporting on</p>	<p>Strategy for Monitoring & Evaluation was developed in February 1999. This strategy is well prepared and could produce the desired results if used. The fact that no base line information is available on socio-economic and natural resources is a concrete evidence that the strategy was not implemented.</p> <p>ERNP Exit strategy was developed as late as in December 2003. Contents of the document clearly indicates that the Exit strategy was prepared primarily to fulfill requirements of the PC-1s of the sub projects. The exit strategy was to prematurely form Apex bodies to take over responsibilities from the project. There was no provision of gradual withdrawal of project support.</p> <p>Community mobilization through establishing COs/VOs is satisfactory at the community level. Especial efforts were not made to target the poor and socially vulnerable groups. Gender balance in the COs/VOs has not been achieved in Galiat and DK sub-projects.</p> <p>Training of project staff: Project staff were trained in the following fields: social organization methods, participatory approaches to sustainable development, gender and development, PRA & planning participatory M&E, training of trainers, communication skills, EIA, and computer and management skills.</p> <p>Beneficiary community training: Selected members of beneficiary communities were trained in the following fields: community management skills, leadership management skills, record keeping, EIA, agriculture, plant nurseries, orchard management, vegetable cultivation, kitchen gardening, livestock & poultry, bee keeping, soil and water conservation, natural resources rehabilitation and sustainable use, food processing.</p> <p>Linkages between beneficiary groups and line agencies are very weak. Linkages have not been established between beneficiary groups and NGOs to ensure sustainability of the CBOs. The project should have been pro-active in establishing linkages between CBOs and large and national NGOs for example, National Rural Support programme (NRSP), Sarhad Rural Support Programme (SRSP), Aga Khan Rrual Support Programme (AKRSP) or smaller NGOs operating in the project areas.</p> <p>Field level monitoring organizations have not been set up. The RU prepared the following strategies:</p>	<p></p>

Objective of the study	Finding	Ref to chapter
the project progress timely, clearly and wholly.	<ul style="list-style-type: none"> - Social organization, Feb '99 - Natural Resources Management, Feb '99. Guiding principles largely followed. - Planning, monitoring and valuation, Feb '99. Followed for planning, but only partially for monitoring and evaluation - Training, Feb '99 - Environmental Planning and Assessment, Oct '03. Guiding principles more or less followed: late - Sustainable financial system, Dec '03. Too late to implement, - ERNP Exit, Dec '99. Hastily implemented at end of project, probably not sustainable. <p>Natural Resources Management, Feb '99. Guiding principles (considering social, technical environmental, cultural, economic and legal aspects) were largely followed. Many of the elements of NRM interventions in agriculture, livestock, forestry and soil conservation have been introduced. Biodiversity conservation did not get much attention and joint forest management has not progressed far.</p> <p>- Environmental Planning and Assessment, Oct '03. The document was produced too late to be implemented. Guiding principles (which appear more like a list of interventions) were more or less followed for fruit trees, forest fires, terracing, animal housing, road drains and some of the case studies. No full EIAs were prepared, due to the small scale of the interventions, but environmental impacts of activities were screened. No watershed approach was used, closure/rotation of rangeland was only started in DK and no satellite time-series were analyzed. Indicated mitigation measures were also largely followed.</p> <p>The only monitoring that appears to have taken place was the CO/VO participatory monitoring. Project progress was reported in quarterly and annual reports, but reporting on verifiable indicators did not take place.</p>	

The social organizing activities were effective as awareness was created on the environmental problems and above all willingness to be active was created to remedy the situation. In addition to this the farmers were shown the road on how to help themselves through a saving system. Farmers contributed above expectation towards project activities. However the system cannot yet be seen as a sustainable system as the road map has not been defined with a beginning and an end. This still needs to be done.

The project's achievements in environmental conservation and rehabilitation have been remarkable. Huge areas of degraded land have been planted with trees and protected against erosion by check dams. Forests in MKKS have been protected against fires, but without financial support the activity is not sustainable because there are only few direct benefits for the population in protecting state forests. Communities

in DK have protected large areas of communal oak forest through erosion control measures, tree plantation and protection against grazing, leading to natural regeneration. In some villages households have sold most of their goats and have increased stall-feeding of livestock. Galiat and DK have started preparations for joint forest management. However, the first proposal is of poor quality. Rangeland management only started in the last year, which is unfortunate considering the reported severe degradation of rangelands. The quality of some of the introduced measures could have been better, and sustainability of some of them can be questioned.

Achievements in the fields of agriculture and animal husbandry have also been considerable, including the introduction of higher yielding maize and wheat varieties, double cropping, fruit trees, pruning, top working of old fruit trees and olive trees, improved breeds of cattle, buffalo, goats and poultry. Although these activities are an integrated part of the local farming systems, they appear at times to have been introduced as stand-alone activities, although links might have been addressed during awareness campaigns.

The trend of abandoning agricultural land is likely to continue and together with reduced grazing pressure will in the long run lead to reduced erosion rates. Road construction and tourist developments are likely to become the main threats to the environment, through landslides and uncontrolled waste disposal.

Main Recommendation

The project has faced a delay of approximately 2 to 3 years in implementation. Especially in the last 2 to 3 years the project became fully operative (Figure 28) The project has been halted because of the financing agreement coming to an end not because of objectives having been achieved. Many (written requests have been received by high Pakistani Officials to complete/continue with the Project. The sustainability phase has not been started even less completed. The Mission thinks that to stop in this way will waste the investment. Therefore the Mission recommends to complete the project by implementing a sustainability phase.

Emphasis in this phase need to be:

Impact studies

Institutionalizing the methodology of the Project

Increasing beneficiaries contribution until they will fund all activities by the time the project closes.

Forging linkages with districts

Implementing recommendations of consultancy reports, many of which were produced late.

2 Project Preparation and Design

2.1 Identification and formulation

The ENRP evolved out of the design for the Environmental Protection and Resource Conservation Project (EPRCP), a comprehensive program of policy formulation, institutional strengthening proposed for funding by the Government of Pakistan to the World Bank in 1992. The European Union offered to finance three sub-projects in this program. The 3 sub-projects were combined to form the ENRP. Main difference with the World Bank Project was the higher emphasis on Community Organization. The EU fielded an evaluation mission in August 1992 and a final project preparation mission in July 1993. On the Government of Pakistan side for each of the sub-projects a PC-1, which is the project document governing the Government objectives and contribution, were formulated. The basis for the formulation has been the already formulated Final Project Preparation Mission Report.

The EC and the GOP then signed the financing agreement (FA) No. ALA/92/25 in the months of March and April 1995. For the Technical Assistance of the project the IUCN was invited based on a sole source contract. The reason for the sole source was the previous experience of the IUCN with the experience with the formulation of the Environmental Strategy for Pakistan the IUCN had. Thus, the IUCN was approached to especially organize the social and community organizing aspects of the project. In addition to the IUCN, the EU tendered a Technical Assistance Contract for the overall project assistance. This contract was won by Agriconsulting S.p.A of Italy. The Consultant started work on 1st of January 1997.

Overall project objectives.

The starting point for the project has been environmental rehabilitation. This theme originated in the EPCR World Bank funded project. The objectives were formulated in the PC-1s for the three sub-projects. For the three sub-projects similar overall objectives were formulated as follows:

To design and implement, based on a community participatory approach a sustainable program of natural resource management and socio-economic development.

The Financing Agreement then sets out the following intermediate objectives:

- To increase environmental awareness, and to reach a consensus on the need to adopt protection measures at local level;
- To develop local economic potential and income and to improve the status of the population (particularly women) for estimated population of 1.1 million in the project area.;
- To improve practices in water run off control, in forestry, rangeland in approximately 35,000ha and livestock management in approximately 200 villages;
- To stimulate a process of community development (creation of village organizations, women's organizations, clusters of villages, NGOs and associations in approximately 200 villages)

These intermediate objectives bear close resemblance to the intermediate objectives as formulated in the PC-1s. The Financing Agreements refers to the PC-1 as the guiding Project Documents.. Actors in the project stipulates that the PC-1 was flexible, but in reality the document was used in an opportunistic way. When needed flexibility was used as described in the PC-1 but also when needed it was rigidly referred to to formulate specific targets.

At the central level the Ministry of the Environment was the Pakistani Department who was the supervising department involved in the Project, whereas in the case of Punjab Province the Department of Forestry and Wildlife was the executing agency and in the NWFP the Department of the Environment was the executing agency. In the latter case this was only so after the Forestry Department merged with other departments to become the Environment Department.

This construction meant that in cases the point of entry to combat environmental degradation was forest rehabilitation. Foresters were appointed as Project Directors while most IUCN project Managers originated from the Forestry Departments. The Mission has noted that in some cases where erosion could have been remedied more effectively through planting of grasses or shrubs, reforestation was preferred.

2.2 Coherence and realism of the project design

Environmental degradation has been caused to a large extent by an ever increasing human population. Social structures in this population has been breaking down by modernization of society and also through the refugee problems, and general movement of people. Thus, the starting point of the project to start with social organization was a realistic and justified way of starting with activities.

The problems in environmental degradation are real although the problem has not been sufficiently quantified. The design of the project was such that three sub-projects were identified to combat these problems.

The financing agreement only specifies as environmental objective “*to improve practices in water run off control, in forestry, rangeland in approximately 35,000 ha, ...*”. The PC-1s include more details on specific targets, indicating that the majority of the rehabilitation was to be achieved through tree planting. Rangeland management was to cover only some 7000 ha. It could be argued that too much emphasis was placed on planting trees while insufficient attention was given to promoting natural regeneration. However, in the implementation tree planting played a vital role, since without it, it would have been very hard to convince villagers to agree to protect land from grazing livestock.

Agricultural and animal husbandry targets were not set in the FA and PC-1’s due to the participatory character of the project. This commendable non-insisting on clearly defined and quantitative targets and verifiable indicators appears to have allowed the flexibility required for implementing a participatory project. Some of the persons interviewed indicated that at times there was a certain amount of top-down guidance to have the CO’s/VO’s request certain activities. Resolutions of COs/VOs for minor activities, such as seed and chickens, were usually responded to within 4 –6 weeks.

Activities requiring more complicated cost calculations, such as cemented paths and bridges, took some three months. The standard annual planning and budgeting procedure requires preset targets, which could compromise the participatory character of the approach. To maintain this character, annual work plan targets were adjusted after 6 months by the Project Steering Committee taking the actual resolutions of the Cos/VOs into account.

One may wonder if environmental rehabilitation or environmental protection should have been one of the objectives of the project. Protecting areas that are not yet eroded may be more effective than trying to rehabilitate heavily eroded areas, in terms of costs as well as biodiversity conservation. For some areas with serious degradation problems, involving all villages within the watershed might have been more appropriate. From a biodiversity conservation point of view protection and management of large and fairly undisturbed areas of representative ecosystems is more important than managing the Ayubia National park, which is small and isolated.

2.3 Project Cycle and Logical Frameworks

As far as the Mission could ascertain steps from the Project Cycle were not well timed. Specifically in the starting up phase of the project not enough time was allowed for getting acquainted with procedures. This was valid not only for the implementers in the sub-project, but also for the EU, who apparently needed time to come to grips with financing the project. It has not been clear to the Mission how much time was lost in the starting phase. Project records, especially cash flow records do not show clearly what activities were delayed and which not as a result of shortages of cash. The TA, IUCN and GoP implementing agencies estimate the delays in terms of 2 to 3 years.

Within the Project Documents the Sustainability Phase has been loosely described. Since the project had been facing delays, it was hoped that a time extension would provide for a period in which this could be worked out. However since there was only an extension of half a year during which no new activities could be financed, activities for sustainability were hastily designed and not well implemented. The Mission is of the opinion these activities should be regarded as non-performing.

During the project life various logframes were designed. A good number of the logframes presented in the project reports do not qualify for the name. The relationship in these logframes between causes and effects is not clear, more so have there been no attempt to present realistic indicators for completion of activities other than funds being spent.

3 Relevance of the Project

3.1 General Context

Pakistan's natural resources and environment are critical for its future. Proper management of these resources is essential for sustainable growth.

Erosion in the Himalayan hills and mountains of Pakistan is a natural process. The Himalayas, including the Hindu Kush, continue to rise due to the collision of the Indian and the Eurasian continental plates and thus causes of the centuries ever steeper slopes.

Stopping the process of environmental degradation and rehabilitating the environment in the mountains and hills is thought to be necessary to decrease problems in lower areas. Stopping and if possible reversing the process of decreasing productivity of the ecosystems is needed to improve the well being of the human population in the valleys. The degradation of the environment is now menacing the population's ability to exploit the environment to supply them with their basic needs, causing their impoverishment.

Better use of the existing resources and rehabilitation of the environment is important for the population of the area and for the people in neighbouring and downstream areas.

The National Conservation Strategy for Pakistan describes the problems with Agriculture in the Mountain Areas as follows:

- Soil and Water Erosion;
- Need for sustainable economic diversification and employment;
- Limited infrastructure.

It then goes on to prescribe the following policies and measures for sustaining the improvement of the Mountain Agriculture:

Policies

Encourage land use adjustments

Prevent/control soil and water erosion

Develop and promote community based management systems

Initiate and sustain supportive Federal and provincial programs in education; economic development; tourism services; value added local produce projects; the establishment of markets, marketing facilities, roads and transports; and training associated with transmigration

Measures

Prepare soil and social surveys

Demarcate areas for priority action: high risk erosion areas, and potentially high-value cropping areas..

Develop community purchasing and marketing groups

Diversify local economic activities to include sustained development of appropriate scale agriculture and timber based industries, assisted by the provision of small scale machinery/equipment

Adopt integrated cropping/livestock production systems

As IUCN was selected on the basis of their experience with the NCS, the above points figured prominently in the project life.

3.2 Specific Context

The 1992 floods in Pakistan and the heavy damage they caused underlined the urgency of the action in the field of rehabilitation and sustainable use of natural resources. The Pakistan Conservation Strategy adopted by the Government of Pakistan in 1992 and the 8th Five Year Plan (1994-1998) had defined a national policy and fixed the priorities for environmental activities.

The principal causes of environmental degradation in the NWFP as well as in the MKK area of Punjab are population pressure, poverty, poor quality of the natural resource base, break-down in social institutions and the common property regimes vested with collective management, the lack of land use plans, narrow resource base and the lack of enforcement of existing legislation. A World Bank Report of May 1992 on environmental protection and resource conservation reported that policy makers and farmers have focused almost exclusively on questions related to agricultural production and have given insufficient consideration to developing sustainable resource use systems.

Several projects have addressed the problem of environmental degradation in mountainous areas of Pakistan. A number of areas were selected by the Government as being in critical need of rehabilitation. The World Bank and the EU offered assistance. The area of Murree-Kahuta and Kotli Sattian Tehsils in Punjab and the Dir Kohistan valley and the area of Galiat in North West Frontier province were chosen as sub-project areas of an EC funded program called Environmental Rehabilitation in NWFP and Punjab.

With increasing population pressure, steep marginal slopes are cleared for cultivation. The natural cover of forest and scrub is cleared, exposing its soils and also the often steep slopes below to erosion. Herds above the tree line overgraze the rangelands. Natural, accidental or intentional forest fires expose extensive areas to accelerated erosion.

Figure 1: Population Pressure and Erosion in DK

The method to address the problem of degradation was chosen to be interventions in the fields of agriculture and horticulture, animal husbandry, forestry, soil conservation and rural development in general, using the active participation of the population in these three project areas. Experience with participatory approaches has been successful in addressing environmental degradation in mountainous areas in Pakistan and elsewhere. A participatory approach was selected by ERNP for achieving environmental rehabilitation. Collaboration with local communities cannot be achieved if only activities directly related to environmental rehabilitation or conservation are included in the project. Including agricultural, livestock and infrastructure activities and using a participatory approach ensures that the local population has a stake in the success of the project. Agricultural and livestock activities are directly related to the management of natural resources. Some of the

infrastructure activities are indirectly related to environmental conservation while others are more related to income generation, health and education. The inclusion of some of these latter activities, especially in DK, has created a lot of goodwill for the project among the villagers.

4 Efficiency

4.1 Organization, Management, Monitoring

The ERNP program was structured in three subprojects, one in Punjab (MKK) and two in North West Frontier Province (NWFP) (Galiat and DK). Each sub-project was managed by a Project Management Unit (PMU). The PMUs were headed by a project director from the GoP, who mostly came under secondment from the Forestry Department, a Field Manager from the IUCN and a Technical Assistance Adviser from Agriconsulting.

The PMUs were under the supervision from a (Provincial) Steering Committee in Punjab and a Project Review Board in the NWFP. A Resource Unit provided by the IUCN/P was based in Islamabad with the task of providing technical support and backstopping to the three sub-projects.

The Federal executing agency for the ERNP was the Ministry of Environment, Local Government and Rural Development (ME, LG&RD). The joint secretary of the Ministry of Environment was the Federal Coordinator for the ERNP.

The Secretary of the Ministry of the Environment was the Chairman of the Federal Level Advisory Group (FLAG).

The FLAG comprised of the representatives of the donor (EC Delegation), of the executing agencies of the two provinces which are heading the Project Steering Committee (PSC) and the Project Review Board (PRB) and the two implementing agencies contracted by the EC (IUCN and Agriconsulting). The FLAG role consisted mainly of sharing experiences, integration of the project with the National Conservation Strategy, and to follow-up on legislative matters.

For the physical implementation two Provincial executing agencies were appointed: For NWFP (sub-projects of DK and Galiat), the Department of the Environment (previously known as the Department of Forestry, Fishery and Wildlife) and for Punjab (Subproject MKK), the Department of Forests, Fisheries Wildlife, and Tourism (in replacement of the disbanded Murree Kahuta Development Authority, MKDA).

The PSC Lahore and the PRB Peshawar chaired by the heads of the respective , executing agencies (Planning Board), approved the plans and budgets, notably the Annual Work Plans (AWP), supervised the respective PMUs and provide directions on management issues if not solved at PMU level.

In addition, the Murree Kahuta sub-project had (District) level coordination through a “Project Coordination Committee” (PCC). The PCC met approximately 3 to 4 times a year. Persons taking part in the PCC were of lower rank than the PSC. Functions of the PCC included the review and approval of the Quarterly Progress Reports and Work Plans. Work plans for the coming year were submitted by the PCC to the PSC for final approval. The PCC also resolved problems with other agencies and ensured inter-departmental cooperation at field level.

In the two sub-projects in NWFP the PCC did not exist for the reason that the members of the PRB were of lower rank and the two sub-projects themselves operated in a more decentralized way.

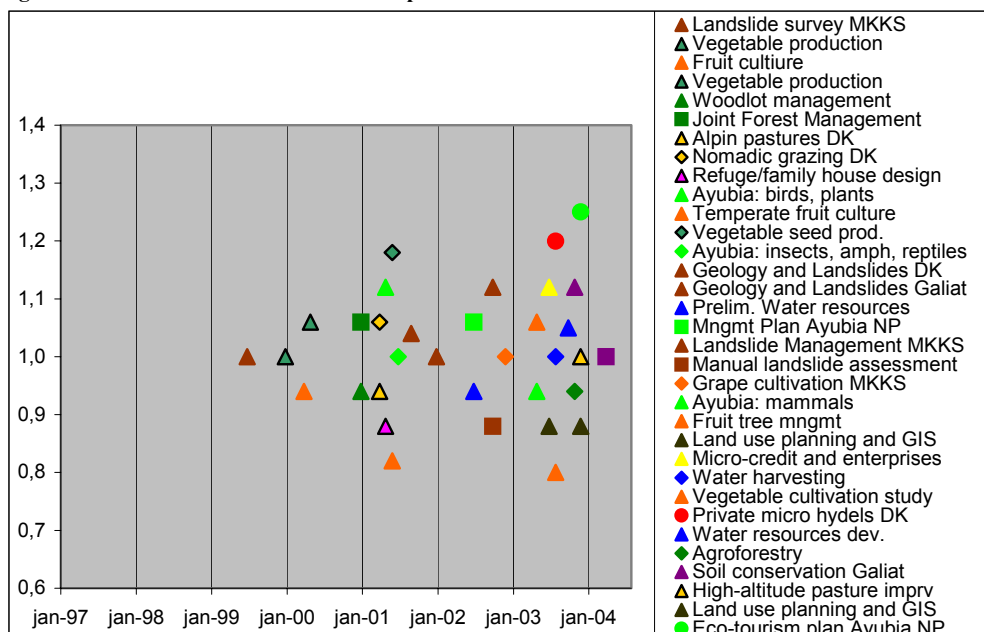
Having in view the problems surrounding the submission of the Annual Work Plans having two committees (PSC and PCC) in MKKS did not seem a good idea, and probably has made decision making more bureaucratic.

The Project Management Units in each sub-project were headed by three persons. In the science of management working with entities headed by two persons is known to be difficult, let alone working in entities headed by three persons. It was very optimistic to assume that such a construction would operate without difficulties. The ensuing problems have been well documented in the TA Agriconsulting reports. It is not known if the problems faced in this particular project were more than in other similar projects in Pakistan. However from a point of efficiency the Mission observed the following points:

- To have a Project Director and a Field Manager originating from the same Department caused frictions as persons involved still referred to their status they obtained from their rank in the Departments.
- Possibilities to have a gender balance in the management not fully explored, for example in the Dir Kohistan Region excellent female candidates would have been available originating from that region.
- Agriconsulting Quarterly Reports should not have been written as confidential documents to the EU. This creates suspicion. If there is something you cannot say, don't say it.
- Topping up of salaries for Government Officers should not have happened with the argument of wage inequalities. Rather the opportunity for topping up should have been awarded based on actual performance on the job against real performance indicators. It is the Mission experience that in this way far greater efficiencies can be achieved.

Technical support missions were mainly fielded in two peak periods: in early 2001 and in the second half of 2003. (See figureFigure 2). Some more details on these missions are presented in Annex I-NRM-2. The first period corresponded with the end of the first contract of IUCN, the second with the end of the project. Another reason for the dip in technical support missions in 2001/2002 was the security situation after 9/11, which made travel to and in Pakistan difficult. Many of the missions could have been fielded earlier. Funding problem at the start of the project have been indicated as one of the causes of late fielding. Implementation of many of the recommendations was limited due to the interruption of the IUCN contract or to the project coming to an end. Prime examples of the former are that nothing happened in rangeland management until 2003, a couple of years after studies on nomadic grazing and alpine pastures were produced by the RU. Also, an outline for Joint Forest Management was produced in January 2001, but by the end of the project JFM plans were only under preparation.

Figure 2: Dates of Consulted Technical Reports



In each of the PMU's, the sub-project field level staff employed by IUCN worked under the supervision of the Field Manager also employed by IUCN. Composition of the staff operating under the Field Managers is shown in the Organizational chart of ERNP (Figure 5). From an efficiency point of view it is important to make comments on three positions – Monitoring & Evaluation (M&E) Officer; Gender & Social Science (G&SS) expert, and Social Organizers (SOs). Each sub-project were to have one M&E officer, one G&SS and 12 SOs (6 male and six female) throughout the project period. SOs were the main contact points between the beneficiary communities and the project administration. All these positions were crucial for the gender and community mobilization components of the project and for monitoring project progress following the Planning, Monitoring and Evaluation Strategy developed by the project.

As pointed out elsewhere in this report, the M&E officers were primarily engaged in activities other than M&E such as administration and writing Quarterly Reports. Gender positions were filled extremely poorly. MKKS was the only sub-project where a female gender specialist was present more or less throughout the project period.

In Galiat sub-project, male gender specialist were employed. One man occupied the gender specialist post for less than a year at the beginning of the project and another man in the last year of the project. In between the post remained vacant. The Mission learnt that initially this position was called Gender and Development Expert and after reviewing the situation in Galiat and Dir Kohistan it was recommended by the Mid-Term Mission to re-name this position as Gender and Social Science expert. It was not clear to the Final Evaluation Mission how this was suppose to address the main problem, e.g. mainstreaming gender. It raises two serious concerns. First, it was highly inappropriate to hire men as gender specialist as they lack direct access to women. Second, whether concerted efforts were made to hire female gender specialist because as mentioned elsewhere in this report, the situation in Galiat sub-project area was not markedly different to that of MKKS.

In Dir Kohistan sub- project area, no G&SS expert was hired throughout the project period. It has been accepted by all parties concerned, including this Mission, that it was difficult (but not impossible) to hire female staff in DKP due to specific local social and cultural constraints (see below). A lady doctor was employed during the last 6 months of the project to access women and it proved highly successful. This approach should have been tried earlier on to improve access to women.

Beneficiary Structures: Community Level

The project activities were implemented through a “participatory” approach with active involvement of the community including men and women. A strategy for Social Organization was developed by the project. It was duly recognized that a blueprint approach to social organization would not be appropriate due to the different social, cultural and political situations in the three sub-project areas. The social organization strategy provided broad guidelines that needed to be modified to adapt to the local situations. It was, however, mandatory that the basic principles of *participatory approach* for group formation at the grass-root level should be used in all three sub-projects with special emphasis on *involvement of women*.

Beneficiary structure as developed in the Social Organization Strategy

A three tier beneficiary organizational structure was to be introduced: (i) Community Organizations (CO) as primary organizations at the hamlet level; (ii) Village Organizations (VO) as the core organizations at the same social, economical and geo-physical area; and, (iii) Apex Body Organizations at the sub-district level, or for areas based on accessibility or roads. The first two tiers were to be used for operational purposes during the project implementation period and the third tier as the project exit strategy and to ensure sustainability of the project introduced community based organisations.

Levels and composition of beneficiary organizations

- (a) Community Organization (CO) established at the hamlet level with a minimum of 30 and a maximum of 100 households. COs were to be formed with a minimum representation of 75% of the total households of the concerned hamlets. Separate COs were to be formed for women and men. Each CO were to have three office bearers – President, Secretary, and an Accountant. The office bearers were to be selected with the consent of at least 75% of the CO members. It was mandatory for all CO members to attend monthly meetings and to participate in the monthly savings program.
- (b) Village Organization (VO) established at the same social, economical and geo-physical areas. Separate VOs were to be formed for women and men. Each VO were to comprise representatives of all the COs that fell under the same ecological zone with full consent of the concerned COs. VO membership were to consist of the office bearers and some other members of the concerned COs. One CO member could represent a maximum of 15 households. Each VO were to have at least two office bearers – President and Secretary - elected by the VO members for five years. The office of the Accountant was optional. Where VOs did not have an accountant the President and the Secretary were responsible for bookkeeping.
- (c) Apex Bodies established at the sub-district level, or for areas based on accessibility by roads are federations of Village Organizations and were to be

eventually registered as NGOs with the Department of Social Welfare. Membership of the Apex Bodies were to consist of representatives from the concerned COs/VOs. The Apex Bodies were to have a General Body and an Executive Committee. The Apex Bodies were expected to develop capabilities to manage social, economical and environmental development through establishing linkages with government, donor agencies, private sectors and NGOs in an ongoing commitment to development action.

Beneficiary Structures in the three sub-project areas and Levels of Achievement Murree, Kahuta and Kotli-Sattian (MKKS)

MKKS sub-project used the general organizational structure described above. Only exception was that in case of large villages more than one VO was formed for practical purposes and this was done in three villages. 63 male village organizations, 63 female village organizations, 153 male community organizations and 156 female community organizations have been formed in 60 project villages (see figure xx on COs and VOs formed). Two Apex organizations have been formed – one in Murree Tehsil called Communities Association for Sustainable Development of Murree Areas (CASMA) and a second one in Kotli-Sattian area called Welfare Council for Sustainable Development of Kotli Sattian Area (CSD). The project villages covered 21,000 households with an average family size of 6. The estimated total population covered is 1,26,000. (Figure 4).

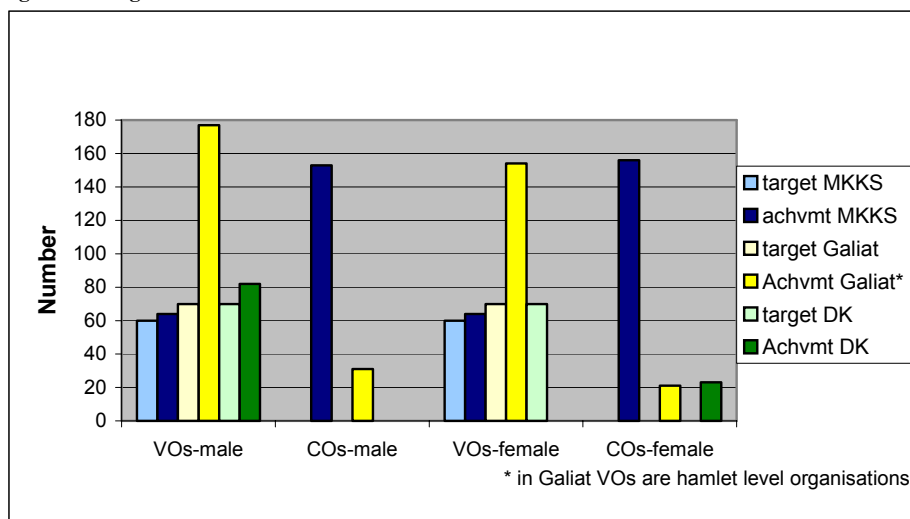
Galiat

A modified approach to beneficiary organization was used in Galiat. The main differences between the beneficiary organizational structure used in MKKS and in Galiat are:

- COs have been formed at the hamlet level with representation of 35% of the total households compared to 75% in MKKS.
- COs have been graduated to the level of VOs once they reached representation from 60% of the total households of the respective hamlets. This was applicable in the case of male VOs. Further compromise was made in the case of female VOs by reducing representation of households from 60% to 40% to enhance female participation.
- Three Apex Bodies have been formed: (i) Upper Galiat Development Organization; (ii) Boi Area Development Organization; and, (iii) Thai Area Development Organization Lower Galiat.

177 male village organizations, 154 female village organizations, 31 male community organizations and 21 female community organizations have been formed in 75 villages. The project villages have covered 26,777 households with an average family size of 8. The total estimated population covered is 2,17,000.

Figure 3: Target and actual VOs and COs



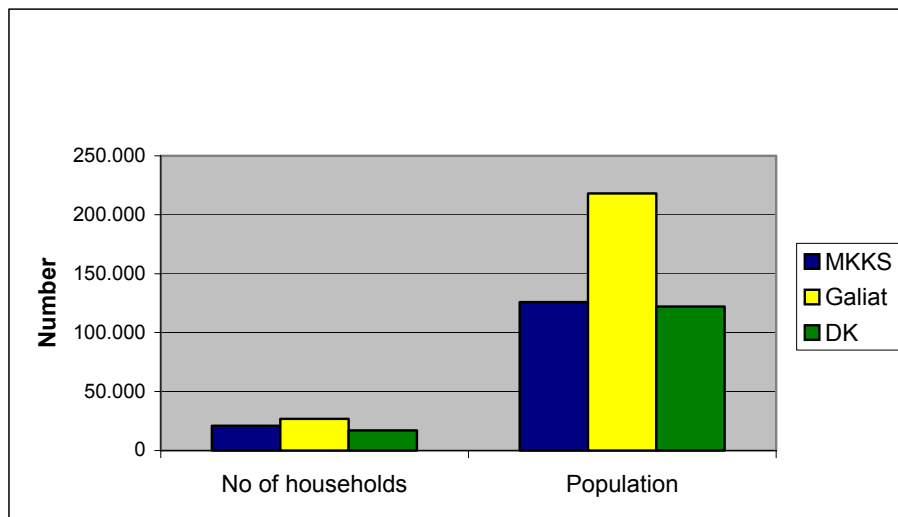
Dir Kohistan (DKP)

The approach used in DK sub-project for organizing beneficiary communities was markedly different from that of MKKS and Galiat. The main differences are:

- The step of forming COs for men was by passed. VOs were organized at the village level using the existing social institution of *jirga* (court of elders). The structure of VOs consists of the traditional *jirga* members and at least one representative from each of the hamlets and castes (*khels*) of a village.
- Female groups could only be formed when a resolution was made by the concerned male VO allowing formation of female groups in the village.
- Female community organizations have been formed at the hamlet level with a minimum representation of about 40% of the total households of the respective hamlets.
- Two Village Organizations – Samang and Tangisar – have been clustered and registered with the NWFP Social Welfare Department.

82 male VOs have been formed and not a single female VO has been formed. There is no female representation in the male VOs. Only 23 female organizations have been formed in 82 project villages. Project area covered 17,000 households with an average family size of 7. The total estimated population covered is 1,26,000.

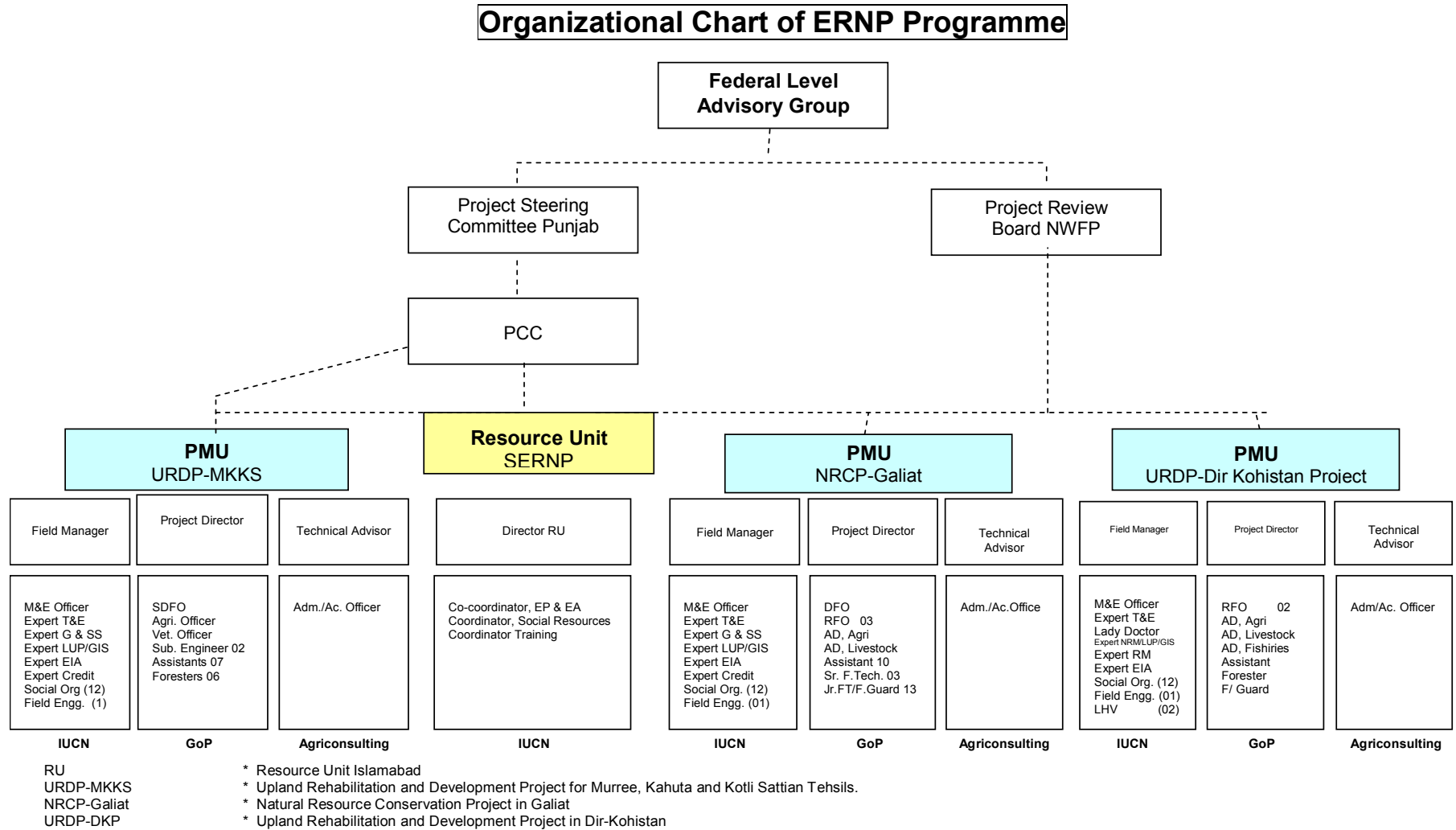
Figure 4: Number of Household and population in the project area



Role of PMU partners in each sub-project in the preparation and implementation of the project activities.

The preparation and implementation of the project activities have been carried out by the project management teams and their technical staff and the villagers, supported by the IUCN Resource Unit. Staff of the sub-projects appeared to have been highly motivated. The long-term TA seems to have been occupied with budgeting and reporting and technical support given by some of them seems to have been somewhat limited, it is not known in how far this was foreseen in their job-descriptions. Similarly as far as the Mission could verify none of the 3 PMU heads in any of the sub-project had an academic background in social sciences. Collaboration and communication between the sub-projects could have been better, e.g. by more exchange visits to introduce adopted technologies to the staff and villagers of other sub-projects. Technically, some of the interventions (check dams, cattle crush, gabion river training) could have been better. Staff often made up for this by their enthusiasm.

Figure 5: ERNP Project Organization

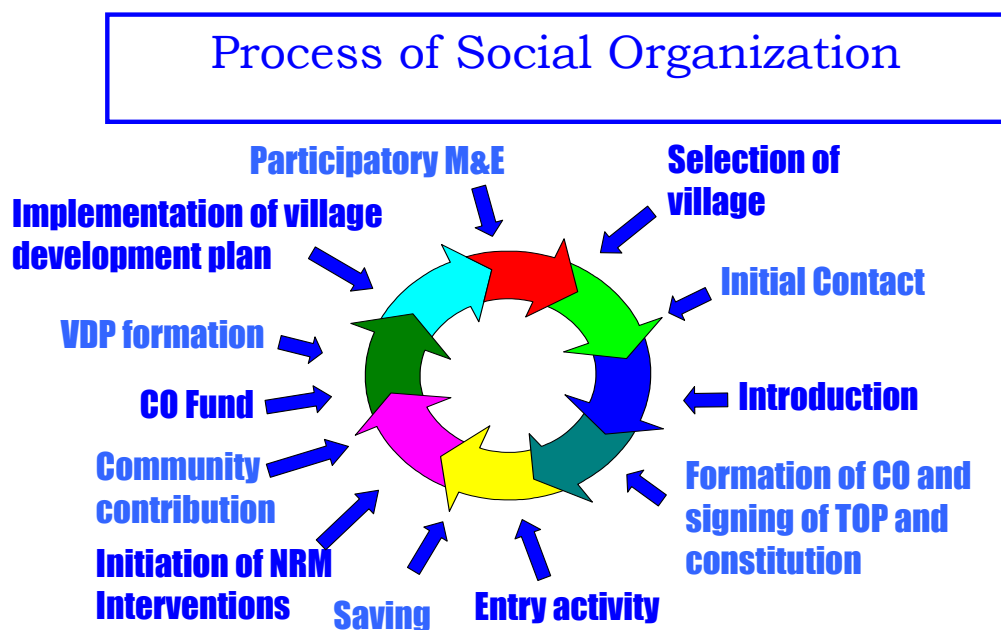


Several intervention methods have been used by ERNP to implement project activities in the targeted villages. These included raising awareness about the planned project activities, facilitating formation of user groups at various levels of the communities, formulation of Village Development Plans, Human Resources Development (HRD) and micro-enterprise development. These are briefly outlined in the following sections.

Process of Social Organization

The overall objective of the project as laid down in the FA “of full involvement of the local population with particular reference also to women” put “people’s” participation at the core of the social organization process. ERNP has used a bottom-up participatory and integrated rural development approach. The social organization strategy emphasizes the importance of involving women in the COs/VOs and in the Apex Bodies. In the social organization process, the SOs played the key role as they were the main contacts between the beneficiary communities and the PMUs.

Figure 6: Process of Social Organization



The process of social organization included selection of villages, initial contact with the communities to disseminate information on the salient features of the Project, roles and responsibilities of the intended beneficiary communities and the project, and formation of COs/VOs. The first step was to raise awareness about project activities through holding discussions with various interest groups. Community organizations (COs/VOs) were formed after holding a series of discussions with the intended beneficiary communities in line with the beneficiary organizational structures outlined above. Formation of CO/VO was followed by signing of Terms of Partnership (TOP) between the Project and the concerned CO/VO for implementation of project

activities. Each CO/VO was required to develop its by-laws and elect office bearers prior to the introduction of project activities.

Figure 7: Meeting of the (female) Community Organization

It was mandatory for all COs/VOs to hold monthly meetings and for all members to participate in the compulsory monthly savings program. The monthly meetings were facilitated by the SOs. The minimum amount of compulsory saving was determined by the concerned CO/VO members. It was expected that these activities would continue by the COs/VOs in the post-project period.

Village selection criteria

Common features of village selection criteria for all the sub-projects were:

- **Dependence of local people on natural resources**
- **Attachment with land**
- **Degree of degradation of natural resources**
- **Remoteness**
- **Non-urbanized**
- **Need for technical assistance**
- **Demonstration value**
- **Geographical spread (representing various Union Councils)**
- **Social readiness**

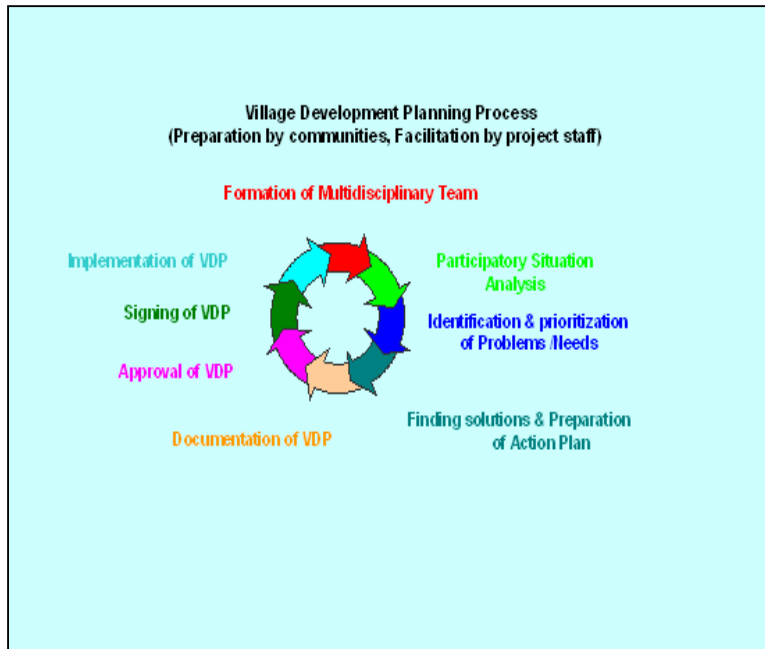
Village Development Plans: Rhetoric and Reality

The underlying philosophy behind forming user groups at the village level is to facilitate formulation of plans based on the felt-needs of the people at the village level. Village Development Plan (VDP) is a tool to facilitate communities for the development and implementation of their development plans to improve the quality of their life. VDPs are formulated by the communities through a participatory approach facilitated by the project staff. The VDP has five objectives: (i) to prepare development plans for sustainable natural resource management and socio-economic development; (ii) to develop ownership of project activities among local people in the project area; (iii) to establish linkages between project and communities through the COs/VOs; (iv) to enhance local capacities in planning and management of development projects; (v) to facilitate the process of empowering communities so that they can articulate their collective resource issues, challenges and plans to achieve them. Formulation of VDP through a process approach requires a considerable length of time. The result of this exercise is a plan detailing development activities and roles and responsibilities of the development partners – communities and the project. In theory, no intervention can take place before VDP completion as these feed into Annual Work Plans that have to be approved by the project steering committee before implementation can take place.

There is little doubt that this procedure was not followed because the reported number of VDPs formulated during the project period is significantly lower than the number of VOs (see Figure 9). Only a few VDPs in English were reviewed. VDPs were in principle developed after both male and female COs were formed, which meant often a long time after the initial formation of the COs. In the mean time interventions in these villages took place reportedly based on the results of the initial PRA problem identification and of the regular CO meetings. This means that where VDPs have

been formulated this was at the least partly done in retrospect. Therefore, in practice, a different approach was used as detailed in Figure 10.

Figure 8: Formation of Village Development Plan



VDPs include an overview of problems, causes and solutions as viewed by villagers and sometimes also as seen by experts, but priority ranking of the problems and of the proposed activities does not always feature in these plans. The planning of activities for the consolidated VDPs does not indicate a time frame for interventions and only include targets

for some activities. The Mission felt that there are some misconceptions, especially among the communities, about the VDPs. A wide variety of interventions are included in the VDPs identified by the communities as their perceived needs. The communities were expecting that all the interventions listed in the VDPs would be implemented. From the project side, however, no promise was made that everything included in the VDPs would be implemented. The consequence was that in many communities the beneficiaries lacked a clear understanding that the project has ended because little of what was included in the VDPs have been achieved. Hence for them the project is incomplete. All the groups visited by the mission mentioned roads, drinking water supply, education facilities especially middle schools (up to grade viii) for girls, and health and hygiene facilities. These are included in the VDPs. These activities do not fall within the scope of the project activities directly but it is not clear how pro-active the project has been to approach the relevant government departments and national NGOs to bring those facilities to the project villages.

VDPs are not one-off documents, these should be up dated annually, in another word, VDPs should be dynamic and not static. Theoretically, this is what should have happened. It is expected that the communities would continue to work through VDPs in the post-project period. The Mission could not get a clear idea of how many of the earlier formulated VDPs, if any, have been up dated.

Figure 9: Number of intervention villages/VDP implemented

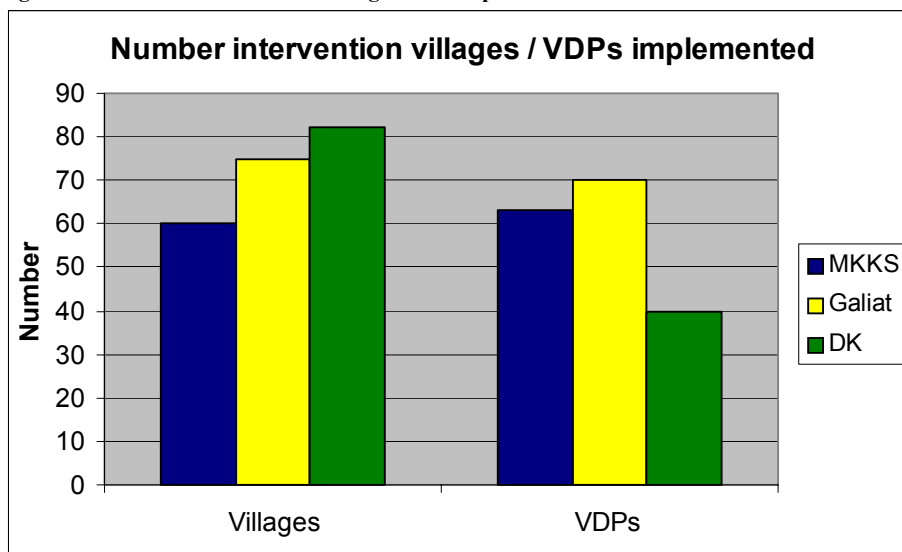
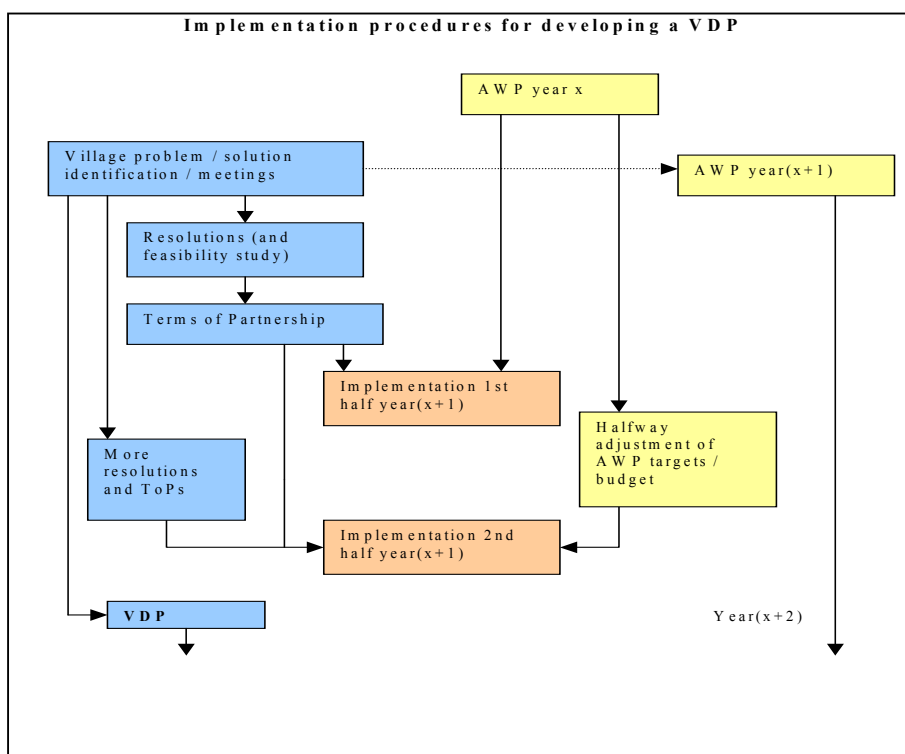


Figure 10: Procedure for developing VDP



Human Resources Development (HRD)

The capacity building program of the project played a key role in the successful implementation of various interventions. The main objective of the HRD component was to enhance capacity of project staff, staff of line agencies, and the local communities for efficient participation. It was expected that this would ensure

effective implementation of development activities not only during the life span of the project but also to continue such activities in the post-project period. The outcome is two-fold: (i) the project staff and staff of the line agencies have received training on natural resource management and particularly on beneficiary participation approaches; (ii) beneficiary communities are well equipped to manage group activities and to undertake NRM related interventions.

One of the important outcomes of the project is development of a cadre of local Village Extension Workers (VEWs) in agriculture, livestock & poultry and forestry at the grass root level. VEWs are providing required services (vaccinations and treatment of livestock), introducing improved practices and teaching and demonstrating new skills to the communities. In total 809 VEWs have been trained - 489 male and 320 female. These figures, however, hide more information than they reveal. For example, all the female VEWs trained are from MKKS sub-project and not a single female VEW has been trained in the other two sub-projects (detailed discussion presented elsewhere in the report; see figure on VEWs trained).

At the community level, another important aspect of HRD has been training of CO/VO members on group management and technical issues related to production and income generating activities.

It is worth mentioning that no clear post-project strategy exists to conduct refresher courses either for the VEWs or for the community members.

Micro-Enterprise Development

The main objective behind promoting micro-enterprise was to create self-employment opportunities for both men and women. The project tried to address micro-enterprise development issue in combination with capital formation by the CO/sVOs through compulsory monthly savings (discussed earlier in this chapter) and Village Organization funds generated through community contributions in various project interventions. Sources of capital for the COs and equivalent organizations funds (for example, VOs in Galiat and DKP) is individual savings by the group members and that for the village organization funds is savings from undertaking collective activities on cost-sharing basis between the beneficiary communities and the project. The other source of village organization funds was as follows: individuals receiving goods from the project on subsidy had to contribute certain percentage (varying between 10 to 25%) of the total value of the goods received to the village organization fund. The fundamental difference between the two funds is that in case of the former individuals can withdraw their savings if they wish whereas in case of the latter the fund does not belong to any individual and, therefore, it can not to be depleted through individual withdrawals. Some of the village organizations have a substantial size of fund in their accounts, for example, one of the male VOs in Dir Kohistan has about half a million rupees in its account.

A credit program from the project was piloted in the MKKS sub-project area for micro-enterprise development. The budget was of about Rs. one million. Interest free loan was provided to 33 CO members (both male and female) and capital has been successfully recovered from 24 of the borrowers. The highest amount lent was Rs.50,000.00. Main areas of investments made by the borrowers were stores of different kinds and poultry farms. It is not clear why similar credit facilities were not made available to the other two sub-projects.

Similarly, the project has established 22 vocational centers where female members of the communities are learning various vocational skills. The products of the vocational centers are being sold in the market generating additional income to the households.

A limited number of micro-enterprise activities has been undertaken through internal lending from CO savings account. Typically, 10 per cent of the capital borrowed has to be paid as service charge for the capital to grow. But impact of this venture has been extremely limited. According to the Final Report of the project, 77 internal lending cases have been successfully launched and operated. Main areas of investments were same as in the case of credit provided by the project.

The prospect of expanding micro-enterprise development through CO savings funds is bleak. During its field visit, the Mission has come across several cases where group members have started withdrawing their individual savings. This trend is strongly associated with the end of the project.

4.3 Monitoring and evaluation

The PC1's only indicated a limited number of targets, which is to be expected in a participatory project where activities are to be based on the results of the participatory planning exercises. Additional targets were identified in the annual work plans. Due to having three different PC1's and no implemented monitoring strategy, the reporting of achievements varied from sub-project to sub-project. Factors reported and units used (e.g. ha, acres or number of trees for tree plantations) differed between sub-projects, and were often different from those of the PC-1. In the financial reporting differences also existed between the sub-projects. For example tree planting was reported under rangeland management, soil conservation and forestry, and MKKS included trail construction under forestry. Consequently, monitoring, analysis and making comparisons between the sub-projects and even for individual activities was extremely difficult.

The collection of baseline information for monitoring purposes has been suggested in various project documents, but never took place. Monitoring of activities appears to have been limited to the reporting of achievements and a number of case studies. Impact monitoring has been virtually missing throughout the project. A lack of socio-economic baseline data makes it extremely difficult, if not impossible, to assess the project's contribution towards attaining sustainable socio-economic development. A closely related problem is lack of indicators to evaluate the impact of project interventions on different social and economic groups.

A closely related problem is the difficulty faced in measuring the extent to which the COs/VOs have improved their skills, capacity and confidence to manage the project induced activities in a sustainable manner. One of the commonly used methods for assessing performance of social sustainability of a project is to measure maturity of local organizations by using a set of indicators developed with beneficiary participation. In MKKs and in Galiat sub-projects a maturity assessment was done on 50% of the COs/VOs formed. Unfortunately, this data has not been consolidated or used to improve project performance.

Similarly, there has been no attempt to quantify the degree of degradation, or to describe with quantifiable indicators the environmental condition in the sub-projects. The IUCN has recently started with defining some indicators to be used in monitoring the state of the environment. This lack of evidence makes it difficult to judge the impact of the project on actual degradation or on its causes, which may be natural or caused by humans.

Despite the consistent inconsistencies in the data available the cumulative targets from the annual reports appear to have been largely achieved, but checking this requires wading through all annual work plans.

Originally, it was not clear to the mission why most of the cumulative annual targets appeared to have been reached since one would expect lower achievements due to the lack of funds (during the first several years of the project) and to not being allowed to start new planned activities after the 31st of Dec 2003. Sub-project staff had no explanation or did not understand this point. Eventually it emerged that annual work plan targets and budget allocations are adjusted midway through the year. This allows the implementation of a proper participatory approach, but targets lose their value for evaluating performance.

5 Effectiveness

The effectiveness of the project has been judged against the intermediate objectives as formulated in the Financing Agreement. The result is shown hereunder:

Table 2 : Logframe from the Financing Agreement

	Intervention Logic	Objectively Verifiable Indicators	Sources/Means of Verification	Remarks
Overall objective	Design and implement based on a community participatory approach a sustainable program of natural resource management and socio-economic development	Indicators were not formulated by the project. (Indicators could have been project design document prepared and poverty, erosion, degradation data)	Yearly monitoring, reporting	These indicators should monitor results and long term impacts. However to measure changes, baseline data is necessary
Intermediate Objectives	<p>To increase environmental awareness, and to reach a consensus on the need to adopt protection measures at local level</p> <p>To develop local economic potential and income and to improve the status of the population (particularly women) for estimated population of 1.1 million in the project area.</p> <p>To improve practices in water run off control, in forestry, rangeland in approximately 35.000ha and livestock management in approximately 200 villages;</p> <p>To stimulate a process of community development (creation of village organizations, women's organizations, clusters of villages, NGOs and associations in approximately 200 villages</p>	<p>Awareness creating training, VDPs</p> <p>Activities to increase economic potential for about 465.000 estimated persons in the project area</p> <p>Activities in water run off control, forestry and rangeland in approximately 25000ha in 217 villages</p> <p>CO/FO/VO formed in 217 villages</p>	<p>Reporting</p> <p>Reports of PMU</p> <p>PMU reports, VDP</p> <p>PMU reports</p>	<p>No concrete data available but the mission judges that this has been successful</p> <p>Target not achieved, the Financing Agreements includes 350.000 people from the security zone in MKK that were later excluded from the project target.</p> <p>Target 60% achieved, sustainability of soil conservation, forest fire fighting doubtful; experience with rangeland and joint forest management only very recent.</p> <p>Target achieved, but there are questions about the sustainability</p>

Comments on the Table:

The immediate NRM related objectives have been largely or partially achieved. NRM activities in agriculture and animal husbandry have greatly contributed to develop sustainable local economic potential and income for villagers. Forestry, soil conservation and infrastructure interventions contributed to increasing villagers' income. The potential number of beneficiaries has been estimated at 465,000 (MKKS:126,000; Galiat: 217,000; DK: 122,000), which is well below the target population of 1.1 million. The 1.1 million appears to have been unrealistic target as it comprised of the whole population of the intervention area including the Kahuta security zone, while only 40 to 80% of the villages were targeted.

The mission has not been able to estimate how far introduced measures have spread outside the intervention villages. Maize and wheat varieties that reportedly double the yields are likely to spread fast to nearby villages. Also downstream effects of conservation activities (e.g. due to increased water discharge of rivers in the dry season, reduced flood levels and reduced silt loads) are hard to estimate. The objective of improving practices in water run off control, in forests and rangeland in approximately 35,000 ha (85,000 acres) has been achieved for about 60%. In addition MKKS reported protecting 43,000 ha (106,000 ac) against forest fires (including some 10,000 acres of plantations). Agricultural and livestock management practices have been improved to varying degrees in the 217 intervention villages.

Community Development

The intermediate objective of stimulating a process of community development by forming organizations at various levels of the beneficiary communities in approximately 200 villages has been achieved. In fact, the project has over-achieved its physical target by intervening in 217 villages. Social mobilization through establishing COs and VOs is satisfactory at the community level. In total 925 COs/VOs have been formed and these are operating at different levels of efficiency. Of these 925 beneficiary groups, 507 (55%) are men's and the remaining 418 (45%) are women's organizations. These figures are very impressive. A closer examination of these figures, however, reveals a lack of gender balance in the VOs/COs due to different social organization approaches used in the three sub-projects (see chapter four). Intervention in number of villages higher than the physical target has been achieved at the cost of quality, e.g. lower level of involvement of local population especially women. Varying degrees of achievements by the three sub-project are discussed below.

Information on NRM related activities was not made available equally to men and women. It was observed that awareness on NRM issues was higher among the male groups. A vast majority of the women's groups perceive the project as a conventional rural development project. This is primarily due to the type of economic activities and income generating activities introduced by the project. Another plausible explanation is that male groups were in direct contact not only with the male project staff but also with the staff of the line agencies who were invariably men. Men were also directly involved in the execution of major NRM activities. The main contact points for the female groups were the (project) female Social Organizers whose primary responsibilities were social mobilization and group management activities. Lack of women's direct participation in major NRM activities that involved working in public places has also contributed to their limited awareness on NRM issues.

MKKS

This sub-project has achieved its physical target of intervening in 60 villages. In MKKS, 437 beneficiary groups have been formed of which 217 (50%) are men's 220 (50%) are women's organizations. In MKKS, formation of COs (both for male and female) at the hamlet level required representation of 75% of the total households of the hamlet in question. Achievement in terms of full participation of the local population including men and women is highest in MKKS. Several factors have contributed to this and these are as follow. MKKS has more urban characteristics compared to the other two sub-projects due to its close proximity to the capital city as well as the presence of the Murree township with the high number of tourists. Literacy rate in the project villages is above 60% (male 70% and female 50%) and physical mobility of women is quite relaxed. The Mission, during its visit to MKKS sub-project, was met by several female groups on the roadside. This was the only sub-project where it was possible to train local women as village extension workers at various training institutes that involved spending nights away from home. MKKS was also the only sub-project that did not have problem of retaining project staff during IUCN's absence of 20 months. Last but not the least, the PMU of MKKS worked more efficiently in decision-making and in delivering goods and services.

Galiat

This sub-project has over-achieved its physical target of villages by intervening in 75 instead of 70 villages. In Galiat, 383 beneficiary groups have been formed of which 208 (54%) are men's and 175 (46%) are women's organizations. Superficially, these percentage figures are not significantly different to that of MKKS but in real terms these groups represent a significantly lower participation by the local population compared to MKKS due to adoption of a different organizational approach. In Galiat, minimum household representation required for forming a CO at the hamlet level was reduced to 35% compared to 75% in MKKS. In addition, male and female COs were graduated to the level of VOs when they reached 60% and 40% of household representation respectively. Thus, a vast majority of the VOs in Galiat are actually hamlet level organizations making the number of VOs significantly higher than the total number of villages intervened (Figure 3). This is very misleading. No satisfactory explanation could be found to justify the significant reduction in representation of households for the women's organizations as the social situations of MKKS and Galiat are not markedly different. This meant lower participation by the population in general and by women in particular. Instead of over-achieving the physical target of number of villages efforts should have been made to enhance female participation. Galiat rates second in terms of achieving community development objectives of the project especially in terms of reaching women. Contributing factors are as follow. Galiat sub-project area has relatively more rural characteristics compared to MKKS. Literacy rate is 56% in the project area (separate figures for men and women were not available). Women have relatively restricted physical mobility compared to the women of MKKS. Not a single local woman was trained as village extension worker. Two explanations were given by the project staff: (i) women were not allowed by their family to spend night away from home; (ii) women were selected by the VOs for training but by this time no fund was available due to the end of IUCN's initial contract with the EU. The Mission is of the opinion that it was primarily a management problem. Because some female VO/CO members have received training on group management activities and on livestock & poultry, forestry and agriculture at the field unit offices of the project. They were not allowed to spend night away from home and daily pick up and drop was arranged by the project. There was no reason why the same arrangement could not be made for training female Village Extension Workers. Secondly, this training could be provided after IUCN came back in 2001. Management problem is also reflected in the fact that Galiat lost a significant number of trained project staff including the Field Manager during IUCN's absence of 20 months.

Dir Kohistan

DKP has also over-achieved in terms of meeting its physical target. It has made interventions in 82 villages against its original target of 70. But it has under-achieved in terms of forming social organizations with full involvement of the local population with particular reference also to women. In DKP, 105 beneficiary groups have been formed of which 82 (78%) are men's and 23 (22%) are women's organizations. Male organizations have been formed at the village level and again a different approach has been used. Male VOs comprise the traditional *jirga* (court of elders) members of the village and at least one representative from each of the hamlets and castes in the village. This means lack of direct participation by the households. This scenario gets worse when judged from the point of achievement in organizing women's groups.

Concrete results in the field against overall work plans and budgets

Of the activities carried out by the project some have a direct effect on environmental degradation, while others have an indirect effect or no effect at all. This section looks at the achievements of the project as well as their effectiveness on a subject-by-subject basis. Achievements were reported in various units (e.g. number of trees planted or acres planted, number of seedlings produced or number of nurseries established) and under various sub-headings (such as two different types of nurseries for six different types of plantations, not including orchards and fruit trees) Figures have mainly been based on the IUCN final report, which gives a fairly consistent and complete overview of the main achievements. Adjustments have been made based on the sub-projects final reports where necessary (in case of data missing in the RU-IUCN final report, not for differences in the numbers). Similarly, targets were hard to calculate from the three PC-1's, for the same reason. These consistent inconsistencies in data made analysis and comparisons difficult.

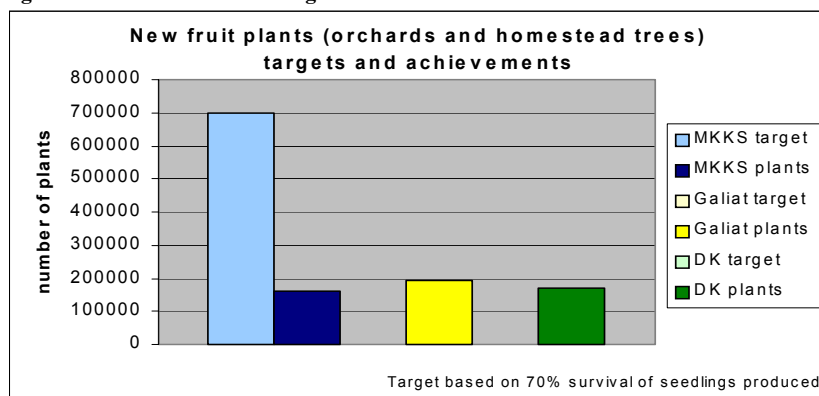
To illustrate these difficulties, we can look at the physical targets for mechanical soil conservation works. MKKS and Galiat indicated targets of 1400 m³ and DK of 500 ha. 1400 m³ equals 50000 cft. Assuming that one third of the mechanical conservation works were check dams, 1400/3m³ represents about 75 small check dams (based on DK case study results). This appears very low. DK built an estimated 7500 check dams. Assuming that they reached their target of 500 ha, this means that some 15 check dams per ha were constructed. This appears to indicate that the other sub-projects only intended to treat some 5 ha with check dams. Or was the target miscalculated?

Further difficulties in analysing the performance are due to the lack of targets in the PC1's, which is to be expected in a participatory project where activities are to be based on the results of the participatory planning exercises. Additional targets were identified in the annual work plans. These targets appear largely to be achieved, but checking this requires wading through all annual work plans, which was impossible in the time available to the mission. Moreover, due to adjusting the annual work plan's target and budget allocation halfway through the year, achievement of targets became relatively easy.

Horticulture

The main activities concerned the introduction of new orchards and fruit and walnut (DK) trees, the pruning of existing orchards and the top working/grafting of wild olive trees (see Figure 11).

Figure 11: New Fruit Plants targets and achievements



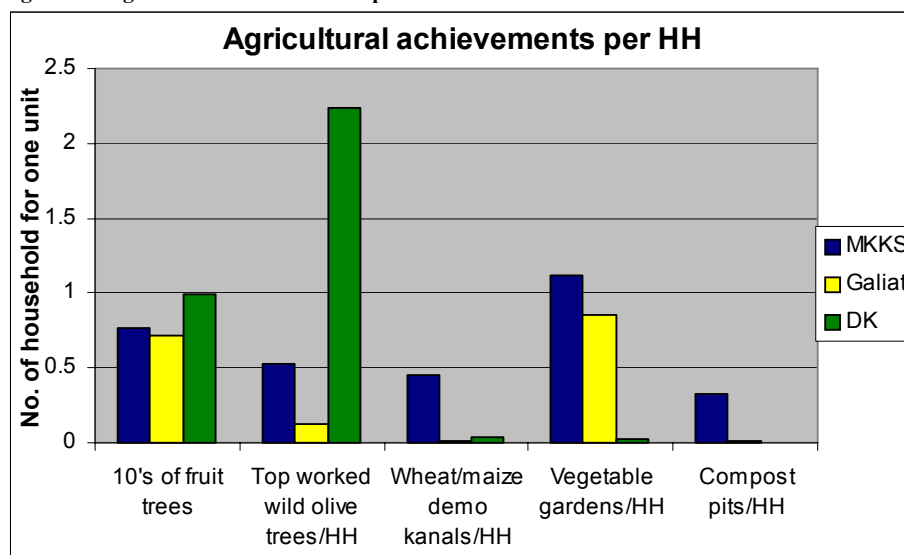
Only MKKS had set a target for the number of nursery fruit tree seedlings. Assuming, a survival rate of 70% the calculated target was 700,000 surviving fruit trees, which proved to be over-ambitious. It was estimated that only 25% of the target was reached. The calculated number of fruit trees produced per acre of nursery turns out to be only 14,500. 50,000 appears a normal production/acre, while for Galiat the calculated figure is close to 80,000, and for DK 120,000. It is difficult with this kind of variations to find out the reasons for these differences. The average number of fruit trees planted per household for each sub-project varies between 7 and 10 (Figure 11). However, a limited number of households established orchards and the majority only planted a few trees around the house or on field boundaries. Although pruning of old trees and of newly planted trees was recommended early in the project, a technical mission in mid 2003 reported that the lack of proper pruning was still a problem.

Agriculture

The introduction of vegetable gardens, double cropping (maize as summer crop and wheat as winter crop, mainly in MKKS), and new high yielding varieties of maize and wheat have been the most important agricultural activities of the project, see Figure 12. In MKKS compost pits were introduced one year later and new compost pits have been dug by villagers without project support. In Galiat this has not yet happened because the majority of the pits were dug in 2003, in the last year of the project, with project support amounting to 500 Rs per pit. In DK men were interested in the activity, but since the management team considered it a female activity, they did not award it to them.

Compost pits introduced by projects in many countries have often been abandoned at the end of the project because farmers found it too labour intensive. The experience in MKKS points at adoption of the methodology here, probably due to favourable climatic conditions (sufficient rain and a readily available source of manure from stall-fed livestock, which has also been promoted by the project). The late introduction of compost pits should be considered as a missed opportunity to integrate agricultural development and environmental conservation.

Figure 12: Agricultural Achievements per Household

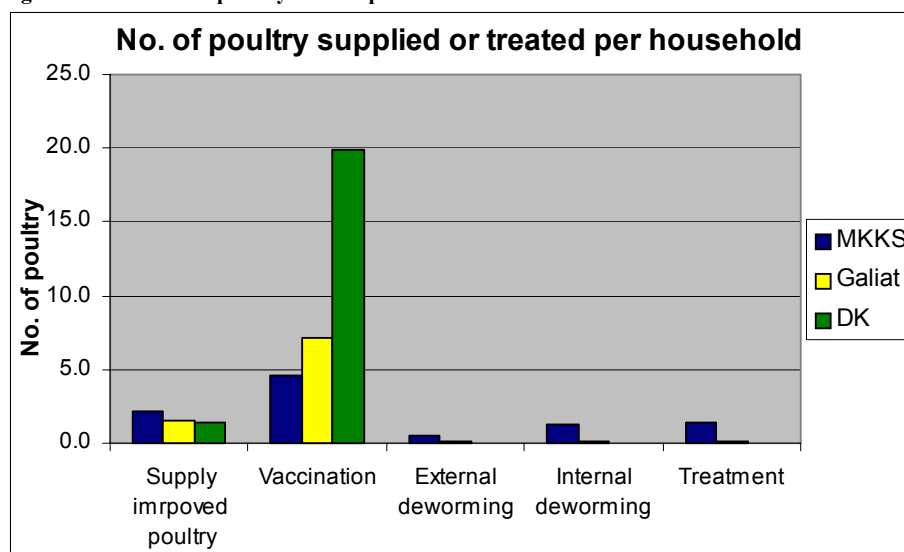


Vegetable gardens can nowadays be found at most households in MKKS and Galiat. In DK these were hardly introduced since working with female groups only just started. The introduced maize and wheat varieties appear to be spreading through the communities by seed being passed on to relatives and friends, although in many villages in Galiat and DK much of the land was still under traditional often lower yielding maize varieties.

Poultry

The introduction of small poultry units and improved poultry birds has been very successful (Figure 13), not only in overcoming the difficulties of involving the women in the project and getting them organised in COs/VOs, but also in terms of improving household income and nutrition. Based on the provided figures 25 to 35% of the households obtained poultry. In reality, at least in Dir Kohistan, more households received poultry because many households obtained 2 or 3 birds rather than the standard package of 6 birds (4 hens and 2 roosters). In Galiat, 55 households reportedly received 70 birds, although in the field only several households having received 30 to 35 birds were encountered. This may have been due to two households sharing the 70 birds. Some of them have reportedly extended their bird flocks to 4000 chickens by now. Vaccinations and treatment of birds has also been very effective as diseases, especially New Castle disease, used to decimate the poultry population before the arrival of the project. Many of the trained LEWs continue regular vaccinations and de-worming, making this activity quite sustainable.

Figure 13: Number of poultry treated per household



Larger livestock

The objective of the supply of improved breeds and bulls was to promote stall-feeding in order to reduce the pressure on the natural resources by grazing cattle and goats. The numbers of cattle/buffalo bulls supplied by the sub-projects was on average one per 2 to 7 villages. In DK, two rams were provided per three villages. These numbers appear too low to have much effect. Transport and technical support to villagers wanting to buy improved breeds was given to villagers in Galiat at later stages, indicating a move towards sustainability. This way the project assisted households in Galiat to procure/buy on average some 1.5 cows or buffaloes and some two beetle

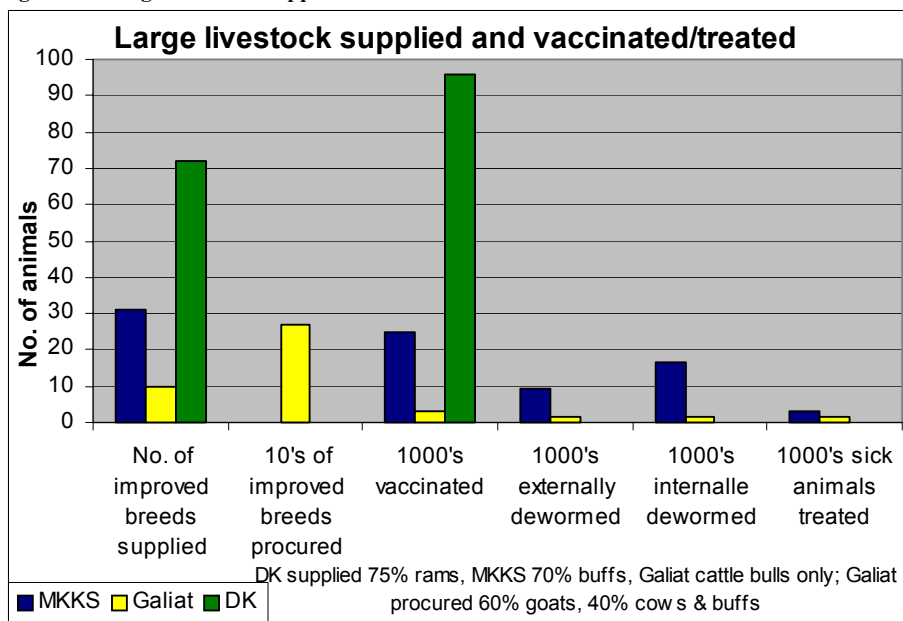
goats per village. Most households sold their unproductive animals. The supply of bulls/rams appears more sustainable. The activity increased incomes and may have sped up the shift from extensive grazing to stall-feeding of goats and cattle, and as such may have had a positive effect reducing degradation. Combined with growing fodder crops and trees, it is a good example of integration of environmental regeneration and agricultural development activities.

Stall feeding requires relatively large quantities of high quality fodder. Consequently, the project promoted fodder crops, including mott grass (*Pennisetum purpureum*, also known as elephant grass) and fodder trees, provided feed supplies and mineral supplements, and trained LEW's. Many of the LEWs in DK have set up veterinary shops and earn a modest income from vaccinating and treating livestock.

Improvements of stables, such as ventilation, have also been promoted. The number of animals vaccinated varies considerably, as shown in Figure 14. Numbers are higher in DK as expected, but it is not clear why the figures for Galiat are so low. De-worming in DK was an activity carried out by the LEWs and consequently does not show up in the figure.

In order to evaluate the impact of the services provided for the households, one should know the total number of livestock for each area and the percentages of households keeping livestock. Only a few of these numbers were available to the mission, and no further analysis could be carried out.

Figure 14: Large Livestock supplied and treated



Reforestation

Producing seedlings and planting them has been a major part of the project's interventions. Some 26 million seedlings were reportedly produced, which is 60% of the target of 43 million. Almost 70% of the production took place in MKKS. Some of the nurseries were located at less suitable or unsuitable sites, e.g. without a permanent water source. Apparently, no criteria for the selection of farmer's nursery sites were set. The area planted reached 48,000 acres, about 60% of the estimated target of

80,000 acres. More details on these figures and on the calculations and assumption are shown in Annex I-NRM-3. Some of the reports indicate low survival rates in the first few years of the project, due to drought, poor care and lack of maintenance. A case studies in Galiat indicated that there was free distribution of seedlings, which may have been one of the cause of insufficient care. However, when asked in the field, villagers and project staff usually quoted survival rates of 80 to 90% in MKKS and Galiat and a more realistic 60 to 90% in DK. Lack of consistent and well-organized data made further analysis difficult. Based on the normal planting densities and a 47% restocking rate, the average number of seedlings planted per acre should have been about 650 for standard planting as planned in DK and closer to 500 for MKKS and Galiat where considerable planting in rangeland was planned. However, calculated densities ranged from 300/ac for Galiat to 750/ac for MKKS (see Annex I, NRM-3). These differences indicate either too low or too high planting densities, or over-reporting of the areas planted or of the number of seedlings produced, or in the case of MKKS high restocking rates (poor survival). Or it could all just be a total lack of accurate recording and monitoring?

Figure 15: Regeneration in managed oak forests

Field observations pointed at fair to good survival rates and huge plantation areas, often under difficult circumstances. Protection of planted areas appeared to be achieved in most areas by so-called social fencing: a community banning livestock from areas and fining the owners of any animals found in the area. This measure, especially in combination with a shift from extensive grazing to stall-feeding, is likely to be more effective and sustainable than fencing.

Species planted were mainly multiple purpose species, providing fodder, firewood and protection against erosion. Species included Robinia pseudoacacia, Ailanthus altissima, Indian horse chestnut (Aesculus indica), deodar (Cedrus deodara) and blue and chir pines (Pinus wallichiana and P. roxburghii) and soap nut (Sapindus mukorossi) in MKKS. DK made an effort to grow seedlings of several local species as well as some medicinal plants in their forest nursery.

Figure 16: Targes and achievement of seedling production

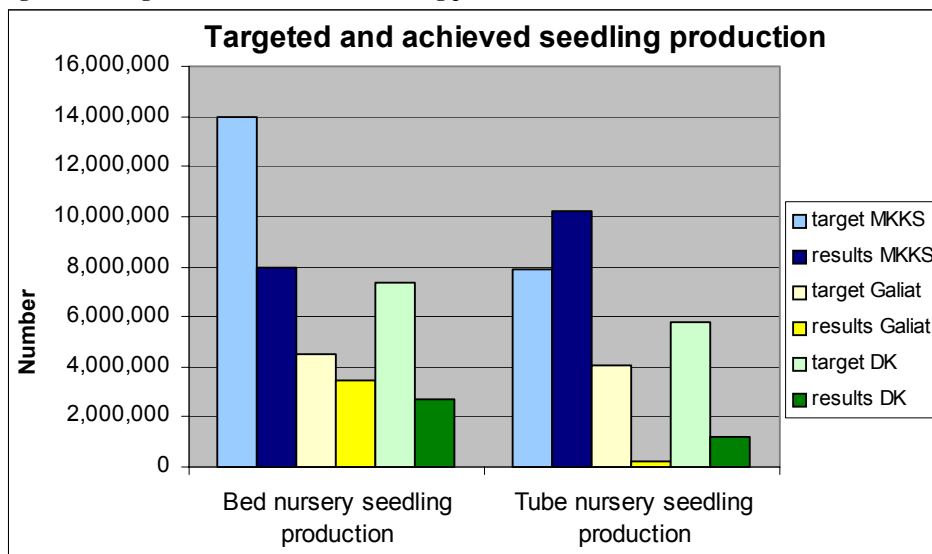
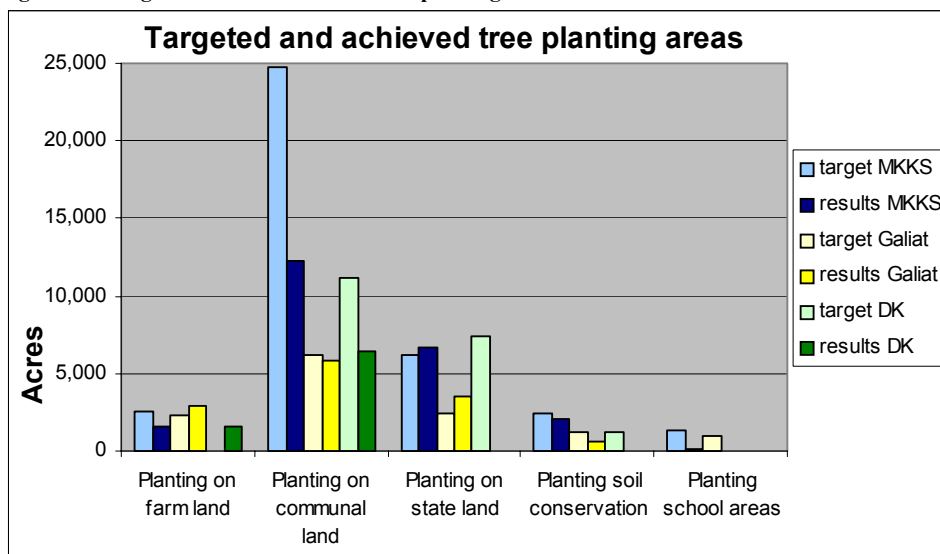


Figure 17: Targets and achievements of ree planting areas



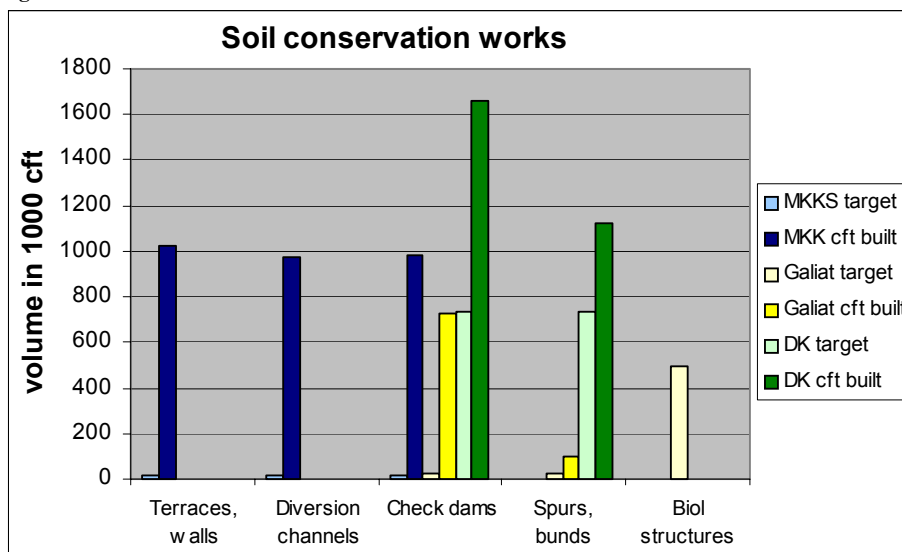
Soil conservation

A few targets were set for soil conservation works indicating the number of m³ to be constructed or acres to be covered. Reported achievements were in cft or running feet. Conversion between these units depends very much on the types of works and the site conditions, and can only give very rough estimates. This has been attempted and indicates that mechanical works largely exceed the indicated targets, while biological works (not considering tree planting) fall far short of the target. Mechanical works comprise mostly loose rock check dams, gabion check dams, spurs, repair of terrace walls, retaining walls, bunds (dikes) and diversion channels.

Some of the terrace walls appeared over-designed (about three feet wide rather than 1 to 1.5 feet). The sustainability of some of the repair works can be questioned, as it appeared that partially collapsed walls were not repaired by farmers without project support. Check dams, especially those constructed in the first few years of the project were not always properly constructed. Some had a flat top surface, while others were not anchored sufficiently into the sides or the bottom of the drainage ways, increasing the chance of eventual failure of the structure. At times check dams appeared over-designed (larger than needed) and a few were bypassed by run-off water.

Many of the gabion spurs were poorly placed and often not anchored into a solid part of the riverbank. Some were located in inside curves of the river and gaps left in gabion walls may be prone to erosion. A manual for soil and water conservation was only produced at the very end of the project. A landslide control manual and some rather general sub-project level geological/landslide reports were produced by a TA consultant. The manual has reportedly been used extensively, also outside the project. Unfortunately, new road construction in Galiat shows continued use of the old method of dumping the cut soil over the nearest edge without consideration of the effect on the vegetation and the subsequent risk of landslides.

Figure 18: Achievements in soil conservation works



Forest land, rangeland and protected area management

Logging, forest fires and heavy grazing in forests and overgrazing of rangelands are the main threats to environmental protection in the project area. Degradation is severe in major parts Dir Kohistan and in some catchments in MKKS and Galiat.

DK started oak forest management with several villages from 2000. Once a community agreed to improve the management of their communal oak forest, the project would help them construct check dams in the eroding gullies and drainage ways and to plant trees. To protect the trees the community would ban grazing in the area and impose fines on owners of animals found inside the area. In some cases villagers agreed to sell off unproductive animals and increase stall-feeding. Regeneration has been considerable. However, three years is insufficient to restore the natural vegetation cover. Regeneration is slower in denser oak forest where ground cover is almost non-existent. Several more years of protection are needed for these areas to regenerate, in which case they can become demonstration sites. In some cases this may not be achieved because the community will reopen the forest for grazing after a few years.

Figure 19: Regeneration of communal areas

Range management trials, as planned in the PC-1's and recommended again by the MTR, have only started in 2003 in two areas where the community agreed to a rotational grazing system. Initial surveys done by RU-IUCN consultants in 2001 were not followed up until IUCN's return in 2003. Results are reportedly good. Project staff informed the mission that no Gujjars (migrating livestock herders) were affected by these new management trials. However, one of the villagers informed the consultant that the community banned grazing in their communal oak forest, also for the Gujjars, forgoing payment of Qalang (grazing tax). He said that Gujjars had moved to other pastures or sold their animals. More time is needed to evaluate and extend this experience.

MKKS has achieved the protection of communal and state forests from fires through awareness raising and training and in combination with the protection of planted trees.

Forest fire fighting was introduced all over MKKS, where the problem is a lot more serious than in the other areas. Some 106,000 acres of forestland have been protected. Forest fire fighting teams were formed, fire engines were hired and watchtowers were repaired. Together with the communities, including women, many forest fires, especially in restocked forest, were extinguished before major damage occurred. Forest fire fighting is unlikely to be sustainable. Fires near habitations and plantation areas may still be extinguished, but those further away and depending on the presence of fire fighting teams and equipment will probably not be fought.

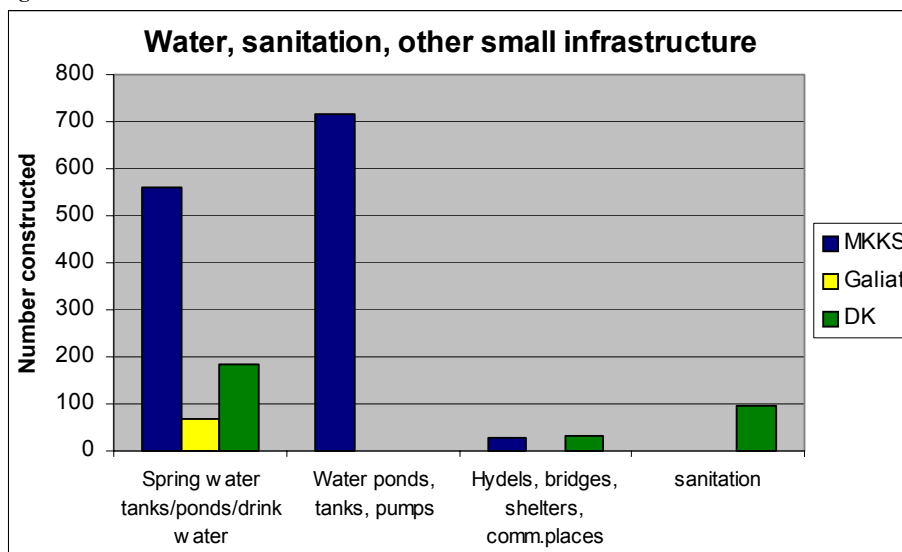
Plans for joint forest management programs were prepared in Galiat and under preparation in Dir Kohistan. Joint forest management is defined as “sharing of products’ responsibilities, control and decision-making authority over the forestlands between the forest department and the local communities”. The JFMP document consulted appeared incomplete, inaccurate and often vague and it is doubted if it can be a good basis for joint management. Ambiguities appear to leave room for corrupt practices and the legal basis of the plan appears to be weak or absent. Successful implementation of JFMs requires that the communities receive more benefits from forest management. Moves within the Forest Department to address illegal logging by big defaulters, as reported, should be continued with vigor. Controlled culling of non-threatened wildlife (such as on trial for markhor- wild goat) and limited selective logging should be considered in order to increase potential benefits. More details are presented in Annex I-NRM-1.

Biodiversity surveys were carried out and a protected area management plan was produced for Ayubia National Park in Galiat. A range of activities was implemented. The plan is more geared towards tourism development than biodiversity conservation, which appears reasonable, since Ayubia NP is a small and rather isolated park with apparently few rare or internationally threatened species.

Water supply

As rightly pointed out in the project’s awareness campaigns the availability of water from springs, streams and groundwater is directly linked to the vegetation cover in the watershed. The reasons for supplying safe water to the villagers are more related to improving living conditions of the villagers than to reducing environmental degradation. In order to have villagers participate in environmental protection measures their basic needs should be fulfilled first. Again, in the achievements there is a large difference between MKKS on one side and Galiat and DK on the other. MKKS achieved some 1280 spring, roof and other water tanks, ponds and pumps. Galiat reported 51 roof harvesting tanks and 17 small water supply schemes and DK 136 ponds and tanks and 22 small water supply schemes. These water supply schemes may have been more extensive and expensive than the units reported by MKKS, which were often meant for individual households.

Figure 20: Achievements in Water and Sanitation

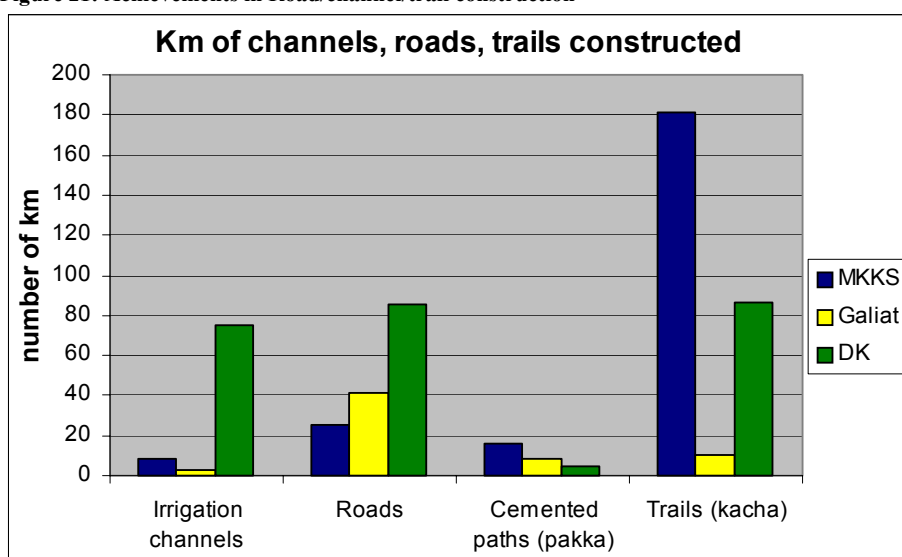


Other infrastructure

Especially DK has used a rather flexible interpretation of the underlined part of following statement in the financing agreement: “When considered economically justifiable and as part of a participatory village development plan, the project may, to a limited extent, assist in the improvement of general infrastructure and communications.”

These include bridges and non-cemented (kacha) trails in DK and MKKS, hydels in DK, irrigation channels, mostly in DK, rain shelters in MKKS, and roads and demented (pakka) paths. Most of these infrastructures have been constructed to improve access to villages and to improve their living conditions. Especially in DK a major part of the budget was spent on these structures.

Figure 21: Achievements in Road/channel/trail construction



Small activities to improve environmental conditions

In MKKS and Galiat fuel-efficient stoves were introduced and some men were trained in the production of these stoves. These are now for sale in the local markets. These stoves reportedly reduce wood consumption by half and improve health conditions. They also will reduce the workload of women. Similar stoves were introduced in districts adjacent to DK, and were already commonly used in the area by the time the project started.

Effectiveness in Human Resources Development

All the sub-projects exceeded their targets for community training by 28 to 58%, which indicates a significant success of the Human Resource Development component. This component of the project played a key role in the successful implementation of various interventions. The project enhanced capacities of project staff, staff of line agencies, and the local communities for efficient and productive participation in the implementation of the project interventions. Two main types of trainings were provided. Firstly, the staff of project and line agencies was trained in natural resource management, and participatory approaches and practices. Secondly, the local communities were trained to manage organizations and undertake NRM related interventions.

One of the successful outcomes of the project is the development of a cadre of trained VEWs both male and female who are extending technical services to the communities at their doorsteps, while increasing their own income through the provision of such services on sustainable basis especially the LEWs. Some of them are now self employed with monthly income ranging from Rs.1500-4000 and enjoy respect and honor in the society. Mortality rate in poultry and livestock has considerably been reduced through better management and effective vaccination coverage. The trained staff and the community members found new employment avenues. AEWs and especially FEWs have been less successful. This may be partly related to ineffective application of recommendations of some of the technical support missions. Several missions pointed out the lack of proper pruning (first in Jan 2000, and still in April 2003).

The project is a pioneer in developing networks of extension workers at the grassroots level. The trained extension workers have been linked with the line agency departments working in the area to bridge the gap between the Government departments and communities.

6 Impacts

Community Development

From the community development perspectives, project impacts have been assessed from the overall and intermediate objectives as specified in the Financial Agreement and general development objectives given in the Mission's TOR. These were:

- to design and implement based on a community participatory approach a sustainable program of natural resource management and socio-economic development
- to develop local economic potential and income and to improve the status of the population (particularly women)
- to stimulate a process of community development (creation of village organizations, women's organizations, clusters of villages, NGOs and associations in approximately 200 villages)
- to assess poverty alleviation (income distribution, employment) impact (TOR)
- to assess sustainable social development (TOR)

Several of these points have already been discussed in detail in chapters four and five and, therefore, are not discussed here unless absolutely necessary to avoid unnecessary repetition.

Community participatory approach

ERNP has used a bottom-up participatory approach to enhance beneficiary participation in all stages of project planning, design, implementation and post-project management of the project induced activities. There is an emerging consensus that effective participation requires beneficiary involvement not just as individuals but as a collectivity such as a village community. This has led to an increasing emphasis on community participation through forming resource user groups in all forms of development interventions. For natural resource management involving resource users as "development partners" is now accepted as an imperative by government, international agencies, and non-government organizations. Formation of COs and VOs through a participatory approach has provided a forum for the beneficiaries to function as a collectivity. The participatory approach worked because operating as organized groups helps individuals to attain certain goals that are beneficial to them all but cannot be achieved by them individually through their individual action. Active participation in project activities along with cost-sharing has given the beneficiaries a strong sense of "ownership". Communities in the project areas have developed capabilities to organize themselves and these skills have been strengthened through project support. Training of project staff and staff of the line agencies on community participation has brought attitudinal change.

Figure 22: Beneficiaries perception of before/after situation

Improve status of women and women's organizations

One of the strengths of ERNP is that it has recognized women as direct beneficiaries and has made available extension information and technologies directly to women. Women have been reached even in areas such as Dir Kohistan (though in limited number) where it is extremely difficult to access women due to the local social, cultural and political situation. Organizing separate groups for women is much appreciated by the women themselves. All the female groups met by the Mission invariably mentioned that this has provided them with the opportunity of working together to discuss their common problems and to seek solutions. The women's groups mentioned that previously they used to get together only in the events of weddings and deaths in their hamlet or village but now they can get together at least once a month. Attending monthly meetings has increased women's physical mobility inside their villages and their confidence to speak up in meetings. Women are proud to be involved in decision-making process of the project induced activities. All the female groups visited appeared to be keen to continue their activities and they all

pressed that they needed management support for a lot longer period. They are also anxious to undertake more and new income earning activities.

Poverty alleviation, income distribution and employment

There is little doubt that the production and income generating activities introduced by the project have improved economic conditions of many households but it begs the question as to who benefited most from project interventions and how equity and income distribution issues have been addressed. A good indicator for measuring poverty alleviation and income distribution is the number of poor households that have managed to improve their economic condition through participating in the project activities. Unfortunately, this could not be done due to the absence of a baseline socio-economic data. It is unlikely that a substantial number of poor households have benefited much due to their limited ability to participate in project activities through financial investment. Goods and services provided by the project such as demo plots, orchards, improved variety of maize and wheat, improved variety of cows, goats, poultry farms were subsidized by the project and subsidies varied from 25% to 50% and it is relatively well off households that can afford to take advantage of these opportunities. Therefore, subsidized goods provided by the project might have been negatively biased to the poorer households where it required substantial financial investment by the beneficiaries as they lack access to financial resources to participate in project activities. In addition, land-based activities could be undertaken only by landowning households and these options were not available to the landless households however small they might be as percentage of the total households covered by the project.

According to the Final Report of the project (IUCN 2004), the target group of the project are the local communities. This is a very broad definition as it aims to improve the socio-economic condition of the community as a whole. There is no targeting of social groups within the communities such as the poor and vulnerable social groups. Poverty alleviation or income distribution issues are not explicitly spelt out in any of the project documents that were made available to the Mission. From the discussions held with the EU Islamabad office, IUCN and project staff, it became clear that these social issues were not mainstreamed in the project design and implementation. It is not clear how the project was supposed to achieve sustainable socio-economic development (one of its stated objectives) in the project areas without making these issues an integral part of the project design and implementation. The project used 1960's "trickle down" approach and there are ample evidence in the development literature that the trickle down approach did not contribute much to poverty alleviation. Poverty alleviation needs targeting and targeting costs. Not mainstreaming poverty alleviation is not consistent with the priority of the government of Pakistan. The Poverty Reduction Strategy Paper (PRSP) of the government of Pakistan gives the challenges of poverty alleviation top priority.

Contribution to poverty alleviation is likely to be limited in MKKS and Galiat sub-projects due to high dependency on off-farm income and remittances. Poor households have benefited during project implementation through working as paid labor in physical infrastructure development activities. This was especially true for DKP a very poor area that severely lacks opportunities of off-farm employment due its remoteness.

Sustainable social development

It is too early to make firm statements about sustainability of the beneficiary groups formed under the auspices of ERNP. Project offered a lot of goods and services – both public and private. Organizing in to beneficiary groups could have been instrumental for many groups to access the opportunities provided by the project. It takes a long time to achieve sustainable social development – it takes a process approach. It is also a long learning process for the beneficiary groups. Prior to the intervention of ERNP, people in the project areas did not need to work as a collectivity making collective decisions and undertaking collective actions for their common benefits. Working as a collectivity requires learning new ways of achieving common interests, adopting new culture, changing behavioral pattern and attitude – all these take a long time. During the project period, collective actions were undertaken by the COs/VOs for implementing major NRM related activities especially development of physical structures. These activities were facilitated by the project through extension services, administrative and management support, technical support and above all substantial financial support. Many of the goods and services provided by the project do not necessarily require being involved in a group. For example, increased agricultural production and income generating activities can be and are being undertaken by group members on individual basis. Interventions introduced by the project are still fairly new and sustainability could be assessed once these need major repairs requiring mobilization of substantial resources\at the local level (labor, capital). All that can be said with confidence at this point of juncture is that some of the groups will continue to function in a sustainable manner under certain situations. These will include strong and dynamic leadership from within the group, benefits to be achieved from the government, NGOs, new projects and the private sector as a group rather than as individuals. During the field visits, the Mission have come across both male and female groups who have already been registering themselves with the CCB and approaching large NGOs (such as SRSP) to get matching grants for link roads and drinking water supply. There has to be strong collective and individual benefits to function as collective entities. Organizing group activities and establishing and maintaining linkages with the government agencies, NGOs, donor agencies and the private sector require time. Time has an opportunity cost unless the benefits to be gained through groups activities significantly outweigh the estimated costs there is very weak incentive to continue to operate as groups.

Natural Resources Management

The ERNP NRM wide objectives, as specified in the financing agreement were:

- to develop and strengthen local capabilities for sustainable resource management and utilisation;
- to interrupt the process of current degradation of the watershed lands and repair damage to natural resources;
- to contribute to ensuring a balance between economic growth and the preservation of natural resources.

The project's wide NRM related objectives are long-term objectives to which the project contributes but which cannot be reached within the project's given time frame.

- The ERNP has greatly contributed to strengthening local capacity, especially through community organisation and training efforts. Not all measures promoted were technically correct.
- Degradation has been interrupted and repaired locally.

- This was achieved mainly through natural regeneration due to protection from grazing, plantations and soil conservation measures. In rangelands and state forests interventions have only just begun. Without sustained efforts, quite a number of the activities appear to be unsustainable.
 - The project contributed to this balance through its participatory and holistic approach. Ongoing development activities from other agencies,
 -
- such as the construction of roads and tourism facilities, still appear to lack such a balance. The DK sub-project placed a higher emphasis on infrastructure development, some of which had only a limited link to natural resources management. This emphasis is understandable since the area was a lot less developed than the other project areas.

Agriculture and livestock: The project has contributed to changes in the farming systems that have increased farmers' income (high yielding varieties, orchards, vegetables, chickens) and have reduced the pressure on natural resources (stall-feeding).

Soil conservation: The project has significantly reduced degradation in forests and wastelands, by protection, mechanical soil conservation works and tree planting. The long term impact of some of these measures is doubtful since sustainability has not yet been achieved.

Communal forest: Millions of trees have been planted, thousands of hectares have been protected from fire and from heavy grazing, and people have been made aware of links between forest trees and water supply, land slides and tourism. This may lead to a better protection of natural resources in the future. However, many people will not hesitate to harvest and destroy natural resources for their own personal gains.

Rangelands and state forests: Impact in these areas is still very limited and more time and effort is needed to achieve better protection of these areas. Fire fighting has had a good impact, but appears unsustainable. The rangeland management trials in DK seem promising. The joint forest management plan prepared for the Galies state forest in Galiat appears unrealistic and unsustainable.

Households in MKKS and Galiat are increasingly abandoning agricultural land and a shift from extensive grazing to stall-feeding of cattle is also taking place.

Figure 23: Hydro Electric Scheme built by ERNP in DK

The subproject in MKKS tried to reduce the erosion taking place immediately after cultivation is stopped, by promoting the maintenance of terraces and the planting of trees and fodder grasses. The long-term effects of these trends are likely to reduce erosion. Future environmental concerns are more likely to be related to landslides caused by environment-unfriendly road construction and waste disposal related to uncontrolled tourism development.

Infrastructure: The project's activities have improved living conditions of the villagers (water supply, electricity, cemented paths) and increased their income through better access to markets (roads, bridges) and the development of small enterprises (fisheries, poultry).

Human Resources Development

Lack of knowledge and poverty can become link in a vicious downward spiral. Some of the community members trained by the project in various disciplines narrated their success stories who were empowered to break this vicious circle and moved forward in the direction of sustainable development. Some of them are now self employed with monthly income ranging from Rs.1500-4000 and enjoy respect and honor in the society. Mortality rate in poultry and livestock considerably reduced. The trained staff and the community members found new employment avenues . However, the short trainings of the VEWs/Communities can not provide full command on the subject which may lead to quack development as given in the end of success stories

Entrepreneur Development:

Enterprise can refer to all types of income-generating activities, no matter how home based, seasonal or part time or on any large scale, usually non-seasonal activities which have greater commitment of time and resources.

Keeping in view the acute poverty and massive environmental degradation in all the three sub project areas, support organizations, besides improving management of natural resources, are exploring ways and means of expanding livelihood opportunities for the rural poor. Through capacity-building, mobilization of local resources and provision of financial support and market information, small entrepreneurs are being developed to generate sources of either additional income or serve as the sole source of income.

Household incomes by developing forest nurseries, poultry farming and vegetable production have been improved. The pace of raising orchards and improvement of wild and local fruit plants by grafting has been accelerated. Mono cropping system has almost been replaced with multi cropping system resulting in raising farm income and reducing diseases and pest incidences. Before the project only Maize was the main crop of all the sub-project areas which has now been turned to growing Wheat, Vegetables and potato also. Various interventions introduced in agriculture and livestock sectors by the project started bearing fruits like increase in milk production of cows and buffalos due to better management practices, provision of balanced nutrition and introduction of mottgrass fodder in MKKS and Galiat.

The communities of DK have started producing tomatoes, peas and cucumber on commercial basis but unable to get maximum profit because of lack of knowledge and direct access to market. Introduction of poultry birds not only increased protein availability but also helped in increasing income of the communities in all the three sub project areas.

Technical support: Agriconsulting fielded some missions on fruit and vegetable cultivation in 1999 and 2000 with follow-ups in 2001. Unfortunately, no reports on the earlier of these missions were given to the mission. Impact of many other technical support mission was limited, mainly due to the majority of them being fielded towards the end of the project. Most of the needs for technical support missions could have been identified during the beginning of the project and these should have started in 1999 and 2000 to have maximum impact on the project's achievements. IUCN missions peaked in late 2003, and consequently had limited impact. Completion of the project should include implementation of the recommendations of these missions.

7 Financial and Economic Analysis

7.1 Financial Analysis

Structure

The Federal Coordinator and the Team Leader of the TA Team were co-signatory of the special joint account in Euro.

A National Administrator Accountant was hired to set-up, test and oversee the accounting system of the project. Approval of the EU was also obtained for recruiting a Administration and Accounting officer (AAO) for each sub-project. The AAO were working under the Supervision of the TA staff but these AAOs also received instructions directly from the EU and from the Project Directors. The whole set-up worked well.

Project Bookkeeping

The Mid-Term Review Mission recommended a unified bookkeeping program to come to grips with the multitude of activities and the costs. This was only partly implemented. Sub-project used the same main codes but the sub-codes were different. Then, the progress reporting of activities did not follow the main-codes. This again made it difficult to relate activities to expenditure let alone analyze costs.

Project Audits

Project audits of the sub-projects were done on a half yearly basis, by accountant appointed by the EU. The Government of Pakistan contribution was audited yearly by the Government auditor. Audit reports were available and were partly, because of closure of the sub-projects, already stored and sent to the EU Delegation. A final audit is due by the EU on the project. The Audits reports were all signed and acceptable. A similar procedure was done for auditing the IUCN.

Actors

The Contribution of the **Pakistan Government** consisted of salaries of government staff deputed to the project. Topping up of salaries were paid by the GoP. The GoP, as a government institution has it's own set of rules. In cases these rules appear bureaucratic and cumbersome. However funds came in time and no liquidity problem occurred. The GoP will take over the Project Assets at the end of the project and will provide O&M costs for these assets as foreseen in the PC-1. If these assets will be used for activities similar to the project activities is probably doubtful especially in the case of MKK.

The EU supplied funds late especially during the first 3,5 years of the project. An example of the late supply of funds is given in Table hereunder

Table 3:MKKS EU-funds requests and procedures

Plan	Covered Period	Submitted to PSC	Approved by PSC (but not yet sent to EU)	Received by EU	Allocation of funds
IPA	1/97 to 6/97	Feb-97	Apr-97	Apr-97	Dec-97
1 st AWP	7/97 to 6/98	Jun-97	Jun-97	Nov-97	Mar-98
2 nd AWP	7/98 to 6/99	Jun-98	Jul-98	Aug-98	Jul-00
3 rd AWP	7/99 to 6/00	Jun-99	Oct-99	Nov-99	--
4 th AWP	7/00 to 6/01	Jul-00	N/A	Sep-00	Dec-00
5 th AWP	7/01 to 7/02	Jun-01	N/A	Oct -01	Dec-01
6 th AWP	7/02 to 6/03	Jun-02	N/A	Aug-02	Nov-02
7 th AWP	7/03 to 6/04	Jun-03	N/A	Nov-03	Feb-04

Late arrival of (EU) funds caused delays in implementation. Also the PMUs were not prior informed about reduction on the fund allocations. For example the reduction of fund supply with the balances in hand is a government practice, but it would have been better to give prior notice about this to all concerned. Some of the delays need to be attributed to the difficulties with the GoP in allocating Euro denomination funds, and some of the other delays need to be attributed to late submissal of the replenishment requests. However the bigger part is the part from the submissal of the replenishment request to the arrival of the funds. The estimated delay in implementation by the provision of late funds is about two years. This represents a value of about Euro 2.000.000,- lost.

IUCN as an international union has no liquidity problems.

It has pre-financed the project when funds from the EU arrived late.

The IUCN contract was split in two periods of 3,5 years. This was done to be able to adjust to the circumstances of the project. IUCN first tranche was from 03-10-1996 for 3,5 years to April 2000.

After the Mid-term Review Mission the contract would have been renewed, but due to the late arrival commencing date of the MTR Mission and the late arrival of the MTR report the renewal of the contract was delayed and twice a 6months extension period was granted. The last extension lasted to April 2, 2001. After this, based on a verbal agreement IUCN remained present until July 15, when they finally stopped working in the project. Funds pertaining to those periods have not been fully reimbursed by the EU for unclear reasons. An amount of Euro 167.466,- relating to the period of the 6 months extensions would still be due to IUCN. Another amount of approximately Euro 100.000,- was used by the IUCN, according to the IUCN based on a verbal agreement. The EU has informed the Mission that such verbal agreement would not be honored, but that funds covered by agreements can be reimbursed.

Agriconsulting did not phase liquidity problems. The only problem was that the Consultant did not budget for supporting staff and did not have them. Thus the Technical Advisors were often involved in administrative chorus which could have been more effectively done by lower qualified/paid staff.

Transparency

Financial reporting was done in a correct and transparent way. Auditing was done at regular intervals. The issue of transparency means more than auditing accounts however. The largest opportunity for fraud always existed by duplicating programs. Another opportunity for fraud existed by over-reporting figures. The time of the Mission was too short to explore some of the possibilities.

Table 4: Differences in unit costs

Cost calculations:	target MKKS	results MKKS	target Galiat	results Galiat	target DK	results DK	Total target	Total achiev
Funds used (incl fire fighting, trails in MKKS)		94,000,000		13,000,000		27,000,000		134,000,000
Rs/acre (target estimated from PC-1's)	1,750	3,876	2,500	1,012	2,500	2,533	0	2,806
Seedlings per acre	555	749	517	289	699	366	582	540
Rs/seedling (target estim. from PC-1's)	3.7	5.2	4.9	3.5	4.9	6.9	0.0	5.2
source: project reports		expensivel		too cheap?		expensive		
No. of trees planted, based on areas	24,715,100	15,267,100	8,865,600	8,428,600	13,085,900	5,090,000	46,666,600	28,785,700
Ratio seedlings planted/produced	1.05	0.84	0.95	2.27	0.95	1.31	1.00	1.12

There were large differences in the actual produced seedlings and the accompanying costs. These aspects were not covered by the audit reports but would deserve further investigation.

Replenishment mechanisms

Mechanism for replenishment

Based on the workplan and taking into account the saldo of the past year allocation were made of 40 % of the requested amount to cover half a year of operations, based on a further request the other 40% would be allocated and finally based on a final request the remaining 20 % would be allocated.

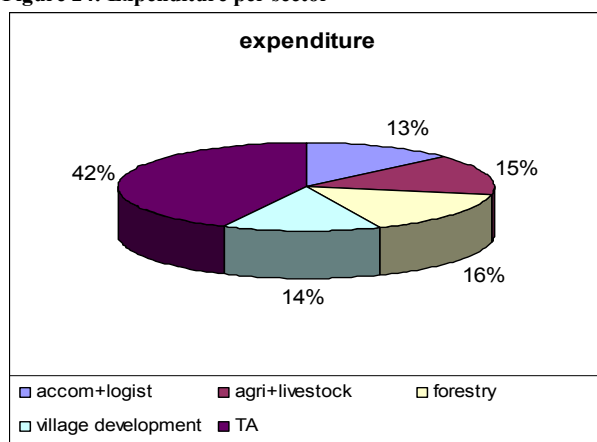
According to the EU Delegation the final request was never made by the sub-projects.

Budget and expenditure

In the Table on the overview of budget and expenditure hereunder the cash-flow of expenditure is shown. Budgeted amounts can be found in the Annual Work Plans. As the Mid-Term Review Mission already signaled there was no overall year wise budget forecast existing. This in a way reflected the flexibility in implementing activities. However as funds arrived late, budgeting for the same items needed to be done twice or even three times.

Therefore only the expenditure year wise has been shown to get an understanding of which sectors were emphasized by which sub-project.

Figure 24: Expenditure per sector



In the graph showing the expenditure the largest portion of the expenditure has been made on the TA (IUCN+Agriconsulting), 42%. The original budget was indeed for this high percentage of TA.

The Graph on the Source of the expenditure the remarkable fact that the largest portion of the portion of the expenditure from the beneficiaries exceeds the inputs from the GoP by a factor 2.

Table 5: Budget and Expenditure overview

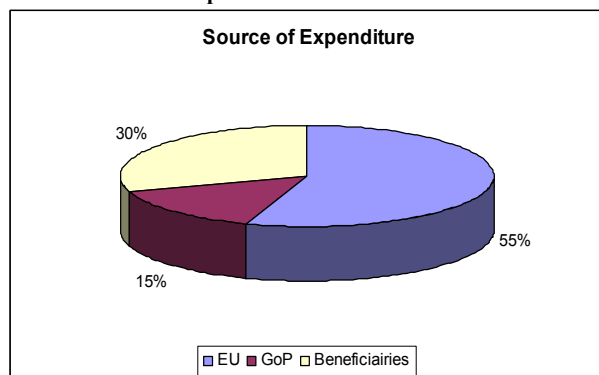
	Budget			Expenditure		
	Eu (in EU)	GoP	Beneficiaries	Eu (in EU)	GoP	Beneficiaries
MKKS	€ 9,634,460	Rs17,140,000	Rs7,726,000	€ 4,014,092	Rs19,575,050	Rs36,205,000
DK	€ 8,191,420	Rs19,920,000	n/a	€ 4,313,748	Rs15,362,000	Rs74,100,000
Galiat	€ 7,402,500	Rs44,819,000	7,000,000	€ 1,931,946	Rs29,460,000	Rs21,000,000
TA				€ 7,326,874	Rs0	
Total	€ 25,228,381	Rs81,879,000		€ 17,586,660	Rs64,397,050	Rs131,305,000

budget defined with exchange rate of 35.2 Rs-P to 1 Euro
in the budget TA is included in sub-projects
exchange rate in expenditure is the yearly average
Mkk expenditure includes TA for the period that there was no IUCN contract
Beneficiary contribution in Galiat is estimate; no figures were provided by PMU

In many activities a beneficiary contribution was required.

The above table shows the budget against the expenditure. In the sub-project budget the TA budget has been included. The TA budget amounted to Euro 11.300.000. With an expenditure of Euro 7,326,874 the amount of unspent funds on TA is Euro 3,97 million. The largest part of these unspent TA is caused by the unforeseen absence of 20 months of IUCN. Some expenditure was then made through the sub-project through attracting field staff though the PMUs. Euro 1,6 million on unspent contingencies and Euro 2 million on unspent sub-project funds.

Table 6: Source of expenditure



The Galiat Sub-Project expenditure was lower than other sub-projects, due to fewer high-cost infrastructural works and management complexities most of the time. Beneficiary contribution, often through manual labor, amounted to 30% of the total costs for communal activities. CO/VO contribution exceeded the GoP contribution. The EU has stated that remaining funds are decommitted and no longer available for the

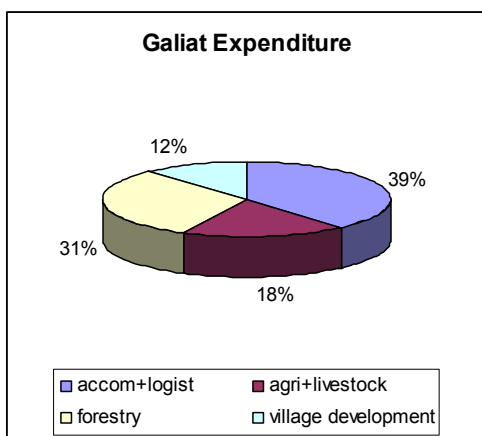
project.

Table 7: Detailed expenditure overview

			Year 1			Year 2			Year 3		
	96/97		97-98			98-99			99-2000		
	MKKS	Galiat	DK	MKKS	Galiat	DK	MKKS	Galiat	DK	MKKS	Galiat
Office hiring/store/staff accomod	306,250	0	492,626	54,000	184,750	337,624	950,100	438,060	183,707	183,000	347,890
Building & equipment	76,700	0	92,401			1,846,461	62,845	3,574	258,922	84,095	65,331
Office operations	21,313	79	303,712	234,961	399,642	494,869	414,811	427,004	435,144	563,864	395,570
Operations and maint. (vehicles)	46,564	41,951	539,056	1,227,227	453,517	2,117,573	2,666,446	2,263,451	1,281,886	1,637,733	1,579,239
Vehicles			-	212,316	90,000	-	2,648,167	-	-	243,115	-
Office & survey equipment			1,048,991	478,243	1,203,608	659,858	723,023	383,412	82,463	114,263	1,330,292
Agriculture/ horticulture			100,621	267,242	42,946	485,281	817,363	310,472	955,600	1,143,466	415,006
Soil conservation			-	66,347		-	285,444	42,750	236,778	493,069	37,710
Forestry			324,471	415,523	1,065,082	982,129	3,926,252	1,442,349	768,509	3,710,956	723,076
Range management			-	4,056		-	145,276	820	1,602	259,008	3,210
Livestock			-	103,133	133,049	239,768	624,912	450,712	191,345	664,027	376,580
Wildlife management			-	30,000		25,144	100,000	6,549	3,680	50,000	17,812
Fisheries		0	-		-	30,416		-	11,450		-
Transport/community infrastructure			-			1,277,969			1,357,701		
Village development programme			-	14,700		-	84,975	264,300	15,000	106,382	578,290
Topographical / land use maps			2,000			-			102,913		
Female literacy/ mother and child care			17,663			-			19,489		
Income generating activities											
Enterprise development			-			-			-		
TA Contingency			-			-			-		
Communication											
G.Total:-		42,030	2,921,541		3,572,594	8,497,092		6,033,453	5,906,189		5,870,006

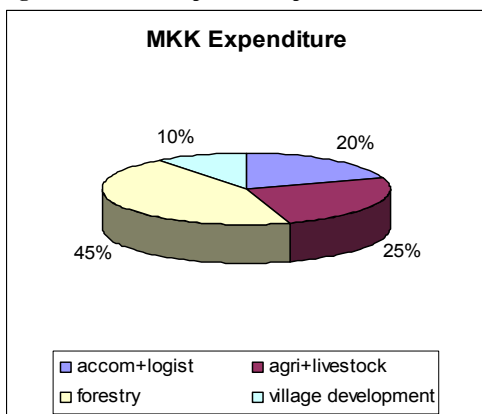
A/C		Year 4			Year 5			Year 6			Year 7			Total			Grand Total
CODE		2000-01			2001-02			2002-03			2003-04						
		DK	MKKS	Galiat	DK	MKKS	Galiat	DK	MKKS	Galiat	DK	MKKS	Galiat	DK	MKKS	Galiat	
																0	
1000	Office hiring/store/staff accomod	286,072	1,922,378	835,094	78,414	1,129,500	494,068	247,626	687,184	505,214	626,268	1,167,476	481,112	2,261,837	6,399,888	3,286,188	11,947,913
2000	Building & equipment	148,836	330,781	85,272	2,276,279	300,800	125,188	2,930,320	225,748	481	4,601,927	192,055	244,419	12,166,646	1,273,024	524,265	13,963,935
3000	Office operations	884,777	774,164	527,661	768,086	1,053,249	680,988	1,578,810	1,438,105	982,796	1,780,229	1,856,152	1,327,772	6,276,177	6,356,619	4,741,512	17,374,308
4000	Operations and maint. (vehicles)	2,477,114	3,542,722	3,334,814	2,072,475	3,106,612	3,424,898	2,969,172	3,644,403	2,896,830	6,808,397	3,957,003	4,722,409	18,306,423	19,828,710	18,717,109	56,852,242
5000	Vehicles	-	1,118,407	15,301	910,896	824,340	934,932	645,935	300,790	1,184,942	-	9,520	1,498,010	1,578,031	5,356,655	3,723,185	10,657,871
6000	Office & survey equipment	616,832	818,568	1,378,943	93,813	265,456	428,966	1,150,517	326,361	465,805	1,162,568	114,844	880,362	4,900,102	2,840,758	6,071,388	13,812,248
7000	Agriculture/ horticulture	2,436,843	3,974,188	2,302,669	4,788,175	3,523,789	931,421	9,872,585	5,987,138	634,418	9,051,256	4,135,421	492,994	27,834,041	19,848,607	5,129,926	52,812,574
8000	Soil conservation	3,958,423	3,641,656	502,387	4,987,772	3,457,149	898,843	5,230,337	2,339,003	1,329,239	8,538,305	1,079,206	2,197,834	23,010,915	11,361,874	5,008,763	39,381,552
9000	Forestry	4,104,111	12,949,009	4,078,691	4,774,257	27,939,383	8,285,803	7,396,836	34,088,061	6,972,789	8,799,797	11,232,396	7,079,527	27,345,100	94,261,580	29,647,317	151,253,997
10000	Range management	-	1,207,569	29,281	-	2,494,964	22,380	-	885,296	-	112,552	285,942	-	176,454	5,282,111	55,691	5,514,256
11000	Livestock	956,040	1,507,269	1,151,271	1,174,812	1,847,760	845,617	1,480,538	5,691,345	1,322,257	1,256,331	3,110,407	481,744	5,435,974	13,548,853	4,761,230	23,746,057
12000	Wildlife management	27,869	-	666,620	387,925	-	602,036	703,880	98,200	493,354	-	-	963,252	1,209,998	278,200	2,749,623	4,237,821
13000	Fisheries	1,030,757	-	-	935,143	-	-	1,105,687	-	-	2,819,353	1,454,305	-	6,026,606	1,454,305	0	7,480,911
14000	Transport/community infrastructure	2,567,800	-	-	488,894	-	-	-	1,000,700	-	-	-	-	5,749,364	1,000,700	0	6,750,064
15000	Village development programme	5,903,269	780,833	1,445,687	19,461,458	2,926,186	1,595,049	17,904,094	8,793,484	1,566,030	51,279,102	8,098,434	5,852,483	94,669,083	20,804,994	11,301,839	126,775,916
16000	Topographical / land use maps	-	-	-	-	-	-	1,260	-	-	1,200	-	-	123,473	0	0	123,473
17000	Female literacy/mother and child care	50,343	-	-	384,115	-	-	419,526	-	-	1,401,828	-	-	2,362,864	0	0	2,362,864
18000	Income generating activities	-	-	-	-	-	-	-	-	-	-	-	202,000	-	0	202,000	202,000
19000	Enterprise development	668,000	325,000	-	-	395,000	-	-	310,678	-	-	-	-	687,100	1,030,678	0	1,717,778
20000	TA Contingency	-	-	-	2,852,761	9,452,199	4,501,634	1,957,047	7,633,001	3,278,683	3,269,590	7,637,721	3,109,181	8,384,978	24,722,921	10,889,498	43,997,397
20300	Communication	-	-	-	-	-	-	-	-	-	-	-	-	20,300	0	0	20,300
															0	0	-
	G.Total:-	26,117,086		16,353,691	46,435,275		23,771,823	55,594,170		21,632,838	101,508,703	44,330,882	40,422,597	248,505,166	235,650,477	106,809,534	590,965,177

Figure 25: Galiat expenditure per sector



Expenditure by sub-projects
 Expenditures have been aggregated in 4 categories to make visible the expenditures over the main sectors. TA has been omitted, it has already been shown in the graph shown earlier and should be assumed to be evenly distributed over the three sub-projects. As reported earlier, the sub-projects did keep the same main accounting codes, but the sub-codes did vary. Thus there may be small variations if the accounts are corrected for this anomaly. Furthermore infrastructural works have been largely put under the Village Development Program.

Figure 26: MKK Expenditure per sector

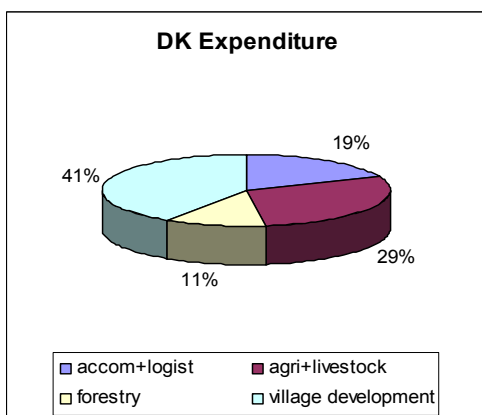


The graphs again clearly show that in the Galiat sub-project the percentage spent on accommodation and logistics was double that of the other sub-projects. were necessary for implementing the program. This reinforces the earlier argument that there were problems in implementing the program in Galiat.

In DK sub-project the large share in the village development program is caused by the large amount of infrastructural works implemented there such as the mini hydro

electric schemes and bridges.

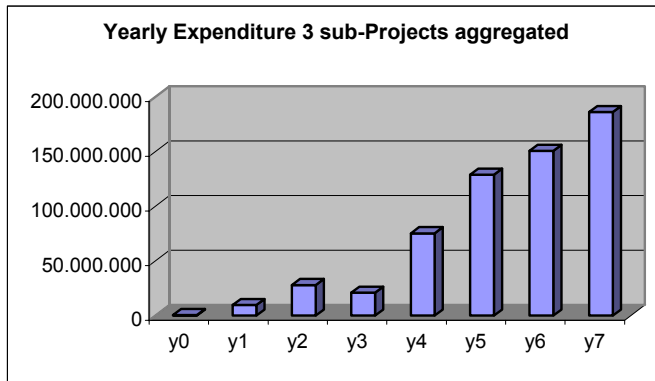
Figure 27: Figure 26: DK Expenditure per sector



In MKKS the large forestry program is clearly reflected in the expenditure pattern.

Figure 28 show very vividly that the expenditure towards the end of the project clearly increased. In normal circumstances the graph would show a tailoring of of the expenditure towards the end of the project. In the case of ERNP it shows that after the year where most expenditure was made, the project stopped.

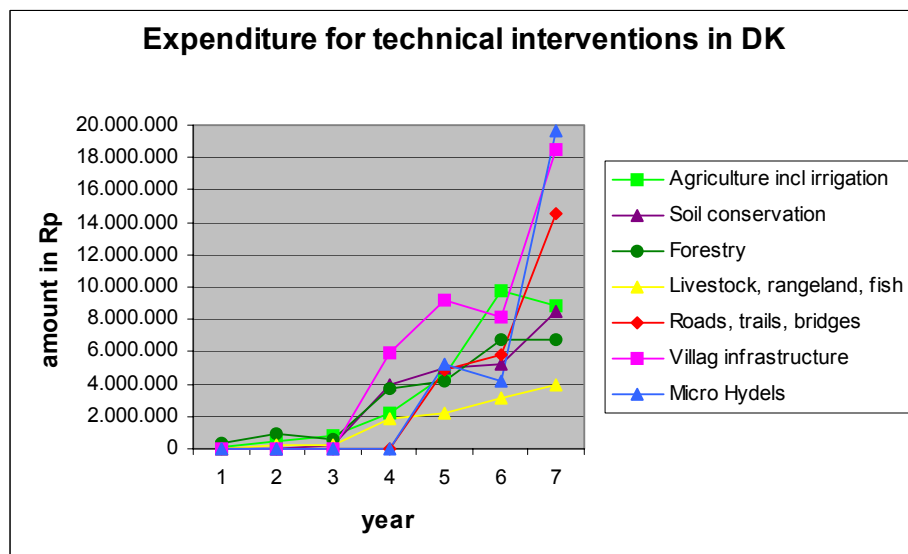
Figure 28: expenditure for whole project per year (excl TA)



During the first three years of the project expenditure on technical interventions was very low, mainly involving agricultural, forestry and livestock activities. In years 4 to 6 a good balance between the various interventions appeared to have been reached, although expenditure for forestry appeared very high in MKKS, which is at

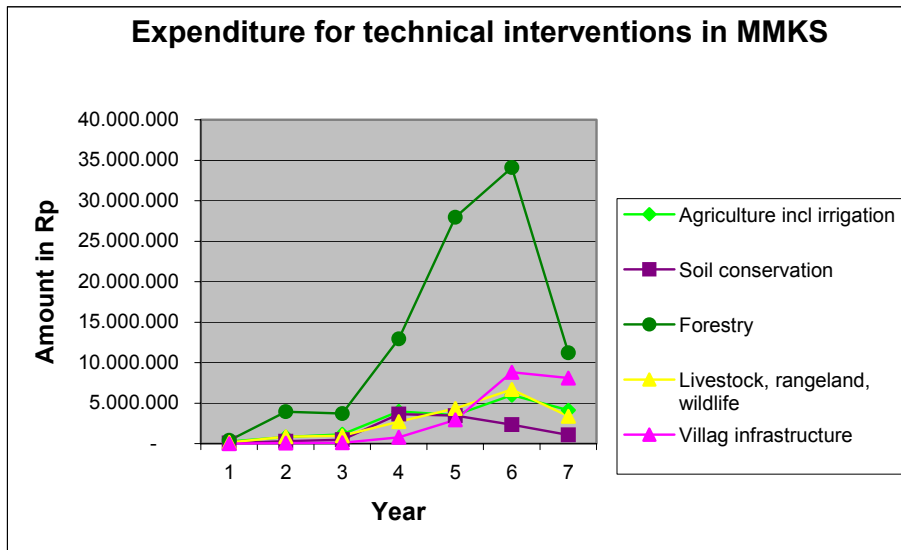
least partly due to including forest fire fighting and trail improvement under this heading. During the last year, spending on infrastructure went up considerably, mainly because of DK's efforts to implement as much as possible of the villagers' requests before the end of the project. Unfortunately no detailed financial data for Galiat were available, while for MKKS only annual data for the main budget lines were available. Thus the presented data for MKKS and DK differ to some degree.

Figure 29: Expenditure for technical intervention in DK



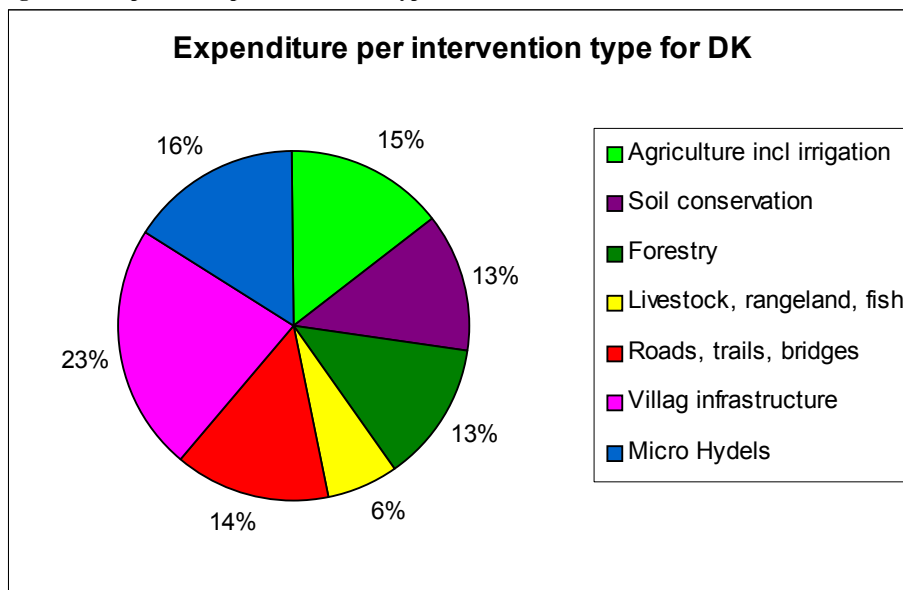
For example, for DK all plantation efforts have been put under forestry, even if it concerned soil conservation planting.

Figure 30: Expenditure for technical interventions in MKKS



Looking at the expenditure for the individual technical interventions, the figures show that in DK half of the funds were spent on infrastructure, while in MKKS and Galiat about half of the funds for technical interventions were spent on forestry. Including forest fire fighting and trails under forestry explains some of this for MKKS, while in Galiat the purchase of seedlings from farmer's nurseries may have contributed to the

Figure 31: Expenditure per intervention type for DK



high total. In DK about the same amount of money was spent on agriculture (including irrigation), soil conservation and forestry. In MKKS and Galiat money spent on agriculture and on soil conservation was for each 15-20% of what was spent on forestry. The higher expenses on soil conservation in DK are due to extensive

construction of check dams and river training works, while the higher expenses on agriculture are mostly due to the improvement of irrigation channels. Comparatively expenses on livestock and rangeland management have been very low in DK. Some of the costs, related to the construction of check dams and the plantation of trees in rangeland have been included under soil conservation and forestry activities. Moreover, costs for setting up a rotational grazing system in alpine meadows are fairly low and more related to organisational costs rather than material and labour.

Figure 32: Expenditure per intervention type in Galiat

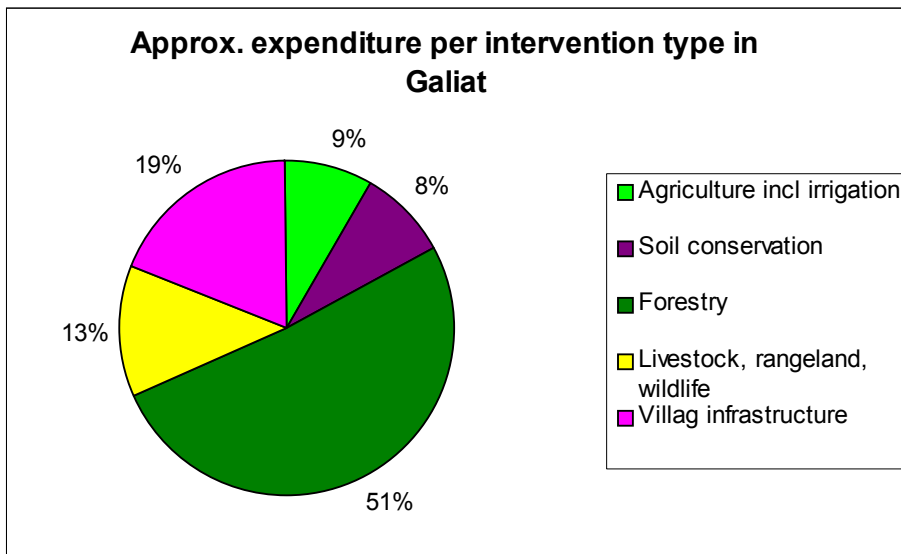
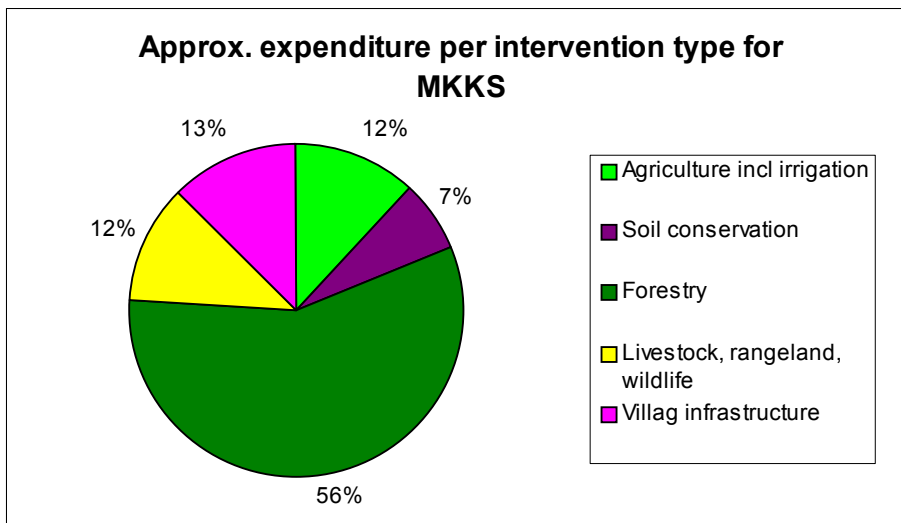


Figure 33: Expenditure per intervention type for MKKS



7.3.1 Overall Context

The ultimate goal of the project is in line with the Pakistan Conservation Strategy and can be classified in 3 explicit objectives:

Conservation of Natural Resources

Sustainable Development

Improved efficiency in the use and management of resources

The intermediate objectives of the project were to improve the quality of life of the upland people and to develop a stable and sustainable physical environment to live in. The objective was to maintain a balance between socio-economic growth and the conservation of natural resources in the region. To analyze whether the project has made progress towards achieving this goal, an impact assessment would be needed. Little data was available in the project on impacts and there was insufficient time to do a proper survey. Therefore only a subjective evaluation of the impacts of the project's activities was made.

7.3.2 Macro-economic and budgetary effects

The project provided income during seven years to approximately 200 households who were directly employed by the project. In addition to this the infrastructural works created employment. Sustainable employment opportunities created were few. The largest interventions which were in the forestry sector did not create significant direct opportunities. The question of the opportunity cost is difficult to answer. Would the Government of Pakistan not have planted trees if the project was not there. It is the regular task of the Forestry Department to plant those trees. Why did the Forestry Department not plant trees and will the Forestry Department continue to plant trees at the pace developed by the Project?

The visit to the conservator of Forestry in Punjab suggests that the Forestry Department has not internalized any of the approaches of the project and thus will not continue (yet) what the project has started.

This immediately brings out the lacune in the project design which would be the lack of any sustainable government support in the form of increased services, or in the form of new

Sustainable opportunities have been created through privatizing the nurseries for the Forestry Department.

Other budgetary effects consist of:

Yields of Trees (long term effect)

Increased production of Fruit Trees

7.3.3 Economic efficiency

There is the question if it has been most cost effective to implement this project to achieve environmental rehabilitation. Probably there are some hypothetical situation which would have achieved the same results at the lower costs. For example the Government of Pakistan could have implemented the project on it's own at lower costs.

However, since the funds available and the priorities of the Government are such that it should be concluded that this is not a realistic assumption. Secondly, funds offered by the EU, were offered as a Grant meaning that the Government received this money as a gift. The priorities of the Government are such that Loan funds would have not been used for environmental project. It appears that then Health and Educational Projects would have been favored.

Would a different project methodology applied give better results? The road followed by the project via community organizations looks, compared with projects within and outside Pakistan to have been effective and efficient in terms of sustainability and environmental protection and income distribution.

Also Good Governance of the Government would go a long way to save considerable amounts of funds. A typical example for this is the road construction going on in the Murree area of the MKKS sub-project. Here the Government as the designer for the road first destroys the environment through careless road-building and then through the project attempts to improve the situation.

Figure 34: Road building/environmental damage by the Government

Household Income

No concrete/recent data is available on the household. It appears that the poverty level in the three sub-project is somewhat similar to the national level. The poverty level in MKKS appears to be lower than in Galiat and in DK.

Especially in MKKS agriculture doesnot seem to be the prime source of income. Income from work in urban areas, from work in the Middle-East, seem to provide the bulk of the income of households. Casual observation show that of total income 60 to 70% is derived from off-farm sources. This diminishes the impact on incomes of project activities. Additional produce is mostly used for household uses. In DK some produce is exported out, but transportation lines are long. It should be doubted if the value of the crops provided will be high enough to offer long term competition to other crops as opium. The Mission suggest to look into other high value crops as medicinal crops and others.

Economic returns on some of the activities

As already often remarked in this report lack of data prevents a in-depth full economic activities. Some data was obtained from adjacent World Bank Projects and is among others shown as examples hereunder. It basically shows that activities are rewarding.

Irrigation Canals; During Field visits it was observed that under the activity of irrigation canals, many irrigation canals, old canals were also rehabilitated or lined. This has not been reflected in the reports and no accurate data exist on what in fact is new and what is rehabilitated. This makes it difficult to analyze properly the benefits of the canals, which will therefore not be done here.

Micro Hydro Electric Schemes; Introduced by the DK sub-project and shown to be a success. Electricity is used invariably for lighting and is replacing Deodar (*Cedrus deodara*) as lighting wood as well as kerosene. Monthly contribution for connecting to the hydro electric scheme is 20 Rs. Use of kerosene was 4 liter per month at a cost of Rs 30/ liter.

Forest Plantings; Returns from Forest Plantings obtained from the Bhimber Upland (Azad Kashmir) is shown hereunder.

Table 8: NPV of forest plantation in Rs./ha

Year	O&M Cost	Return	Net Income
1	6000	0	-6000
2	6000	0	-6000
3	6000	0	-6000
4	6000	0	-6000
5	6000	0	-6000
6	6000	0	-6000
7	6000	0	-6000
8	6000	0	-6000
9	6000	0	-6000
10	6000	100000	94000
11	6000	0	-6000
12	6000	0	-6000
13	6000	0	-6000
14	6000	0	-6000
15	6000	100000	94000
16	6000	0	-6000
17	6000	0	-6000
18	6000	0	-6000
19	6000	0	-6000
20	6000	100000	94000
NPV at 12%	44817	60834	16017
NPV/ha			39562
NPV of 18858ha			746060196
EIRR			11%

Note: calculations are base on an Eucalyptus plantation

Source: the Author's estimation on the basis of the River Management Master Plan of BURDP

Single cropping/double cropping; Here the project attempted to introduce double cropping in areas with single cropping. There is no base-line data to estimate what percentage of farmers already practiced double cropping or what alternative there was for double cropping.

Similarly, there was no base data on initial yields of the crops, which makes it impossible to estimate yield increases.

For instance in the Kohistan area it was difficult to visibly separate out maize crops grown by farmers supported b the project and those not supported by the project. Hereunder some hypothetical figures are shown obtained from the World Bank supported EPCRP, which was carried out parallel to the ERNP in among others the Kashmir area adjacent to the MKK area.

It would not be prudent however to make generalizations based on this data for Galiat and Kohistan.

Table 9: Per ha. cost and return for double cropping

Pre-Project Situation	Post Project Situation
-----------------------	------------------------

Name of crops	wheat	maize	wheat	maize
Variety	local	local	Improved	Improved
Production (kg)	1260	1270	3200	2320
Expenditure (Rs)	5260	4250	12320	10313
Gross income (Rs)	7560	6350	26400	19775
Net Income (Rs)	2300	1400	14080	9482

Table 10: Wheat/Millet: Net Return/acre in Rs.

Year	Net Income
1	8200
2	8200
3	8200
4	8200
5	8200
6	8200
7	8200
8	8200
9	8200
10	8200
11	8200
12	8200
13	8200
14	8200
15	8200
16	8200
17	8200
18	8200
19	8200
20	8200
NPV at 12%	61249
NPV of 1334 acres	81706166

Fruit trees; Hereunder some returns from Fruit Trees are shown.

Table 11: Per ha Cost and Return in fruit plants/orchards of 3 model farmers

Farmer	Pre-Project Situation			Post Project Situation		
	1	2	3	1	2	3
Expenditure (Rs)	3275	2232	5550	5575	4212	7270
Gross income (Rs)	12480	15276	17690	33675	26362	47550
Net Income (Rs)	9250	13044	12140	31900	22150	40280

Impact Assessment

Socio-economic indicators; Reporting on monitoring and evaluation and impacts by IUCN in the ending period of the project already speaks of data needs to justify economic evaluation and analysis. It rightly proposes the following data to be collected:

Improved income: This is an important indicator for measuring the impact of the project. It is, however, not that simple to prove that the change in income has only come from the project interventions. Many other factors might be causing this change. The change in income might come, for example, due to better off-farm opportunities, other development efforts in the area and changes in government policies. Even if the project had not been initiated, a certain degree of change in income as well as other development would have materialized, albeit at a lower level. This spontaneous change in income may be positive or negative but need to be considered in the

assessing the impact of the project. The “with and without” project situation, therefore, need to be analyzed by also considering/adjusting these changes.

Specific to ERNP project, the following indicators will be needed to assess the impact of the project. Emphasis will be on a change in income of the individuals (women), households, and communities from natural resources. These include;

- Increase in yield (productivity) from crops, livestock and forest products;*
- Increase in income due increase in agricultural land, area under forest and number of livestock;*
- Increase in revenue due to improved quality of produce and better marketing practices; and*
- Reduction in cost of production.*

These changes will be analyzed mainly at household level. In addition, efforts will be made to measure distributional aspects of change in income due to project, e.g. owner vs. tenant households, and poor vs. well-off-households.

Improved living standard: In addition to assessing the change in income of the communities, the impact assessment will also look at changes in general living standard of the communities. These will include;

- Changes in basic needs (conditions of households, sanitation, drinking water facilities, roads, schools etc.).*
- Changes in consumption patterns;*
- Changes in health and education conditions (maternity rates, children going to school etc.).*

Conclusion is that the effect of the investment cannot yet be assessed properly. A proper survey as done at the World Bank EPCRP is necessary. Indications are that interventions are rewarding. The effect on the environment and the effect on persons outside the project areas (because of reduced silt loads/erosion) could not be assessed.

8 Sustainability and Replicability

The project design followed a pattern which is common with other development projects in Pakistan. Especially in NWFP other project institutionalised the social forestry approaches within the Forestry Department. The NWFP is a resource poor province and is thus not able to implement the approaches on a large scale. As such the project approaches are sustainable in NWFP only if the investments have been completed

Sustainable activities include vaccination and treatment of livestock and poultry (especially in DK), the introduction of higher yielding varieties of maize and wheat, vegetable growing, fruit trees nurseries, orchards, poultry, fuel-efficient stoves, hydroelectric power stations, and probably compost pits in MKKS (villagers reported to have dug compost pits without financial support). Many of the LEWs are likely to continue their activities. AEWs may also continue with some activities, such as pruning of fruit trees. Cross breeding with improved bulls and buying improved breeds for stall-feeding will also most likely continue, be it at a slower pace. Fish farming in DK will continue as long as the support of the Department of Fisheries is available. Repairs of the infrastructure works will probably be carried out as long as the costs of the repairs remain fairly low. Oak forest management may continue in the villages that have several years of experience with it, but it is unlikely that other communities will start up oak forest management on their own.

Sustainability from social development point of view include the Apex Bodies playing their expected role to ensure sustainability of the community and the village level organizations that they represent. As mentioned more than once in this report, the Apex Bodies have been formed in a rush in the last six months of the project. This was done prematurely without serious considerations of viable alternatives when it was finally realized by the implementing agencies that the project was not going to be extended any further. The Mission had the opportunity of meeting three Apex bodies in MKKS and Galiat and two Cluster of Village Organizations in Dir Kohistan. Presentations made by these organizations comprised list of ideas and activities that they would like to undertake. The points that came out clearly were: (i) they needed management and administrative skill development trainings; (ii) funds to carry out the planned activities; and finally, (iii) extension of the project for a considerable length of time to meet the requirements identified in point (i) and (ii). From the discussions with these organizations it was not at all clear how the Apex bodies were planning to establish linkages with the COs/VOs they are suppose to represent. Mission has serious doubts as to whether the Executive Committee members of the Apex bodies have a good understanding of their roles. To give one example, in MKKS, one of the officer bearers of Kotli-Sattian Apex Body mentioned that separate Apex Bodies should be formed for men and women. This clearly shows lack of understanding of the basic concept of federations of villages where village interests should be considered from a holistic point of view and not along gender lines. Sustainability of the Apex Bodies and Cluster of villages to act as federations of villages is extremely doubtful especially in the absence of external catalyst agencies.

At the CO and the VO level, sustainability will depend on the extent to which these organizations will be able to continue the organizational activities set up by the

project. Routine organizational activities include holding monthly meetings and compulsory monthly savings. During the project period, monthly meetings were the main forum to discuss perceived needs of the communities, making resolutions and submitting proposals to the PMU through the Social Organizers. Most importantly, these activities were perceived, and rightly so, as means of getting access to goods and services offered by the project. All the groups met informed the Mission that they have been continuing these activities without support of the SOs. There was some opportunity to have a look at the registers of the COs/VOs to cross-check this information especially in case of female groups as these were usually held in the house of one of the office bearers. It was noted that irregularities started in group activities after December 2003 when the SOs were too busy organizing the Apex Bodies. In most cases, no meetings have been held between January and June and in some cases there was a gap of 3 to 4 months and then the monthly meetings and compulsory savings resumed. This was the case mainly in MKKS and secondly in Galiat where the groups had strong dynamic leadership from college and university educated younger women. Female groups in all three sub-projects in general and in Dir Kohistan in particular appear to be at higher risk of being disintegrated in the absence of the project. The COs/VOs are functioning at various levels of maturity because of the phasing of village intervention activity and of different local social, cultural and political situations between and within project areas. This has affected the extent to which COs/VOs could learn from the project facilitated organizational activities. Links between community organizations, line department and research institutes are still very weak or virtually non-existent. In the absence of management and capacity building support from external catalyst organizations a vast majority of the COs/VOs are not likely to survive.

The sustainability of some of the measures can be doubted. This includes compost pits in Galiat, terracing, most forest tree nurseries (unless the forest department will buy seedlings from farmer's nurseries), planting of trees on state land and probably also in communal land, forest fire fighting, FEWs, rain shelters and most soil conservation works. Soil conservation measures requiring the use of gabions will not be continued without support. As an example, in the village of Aru Kass work on an incomplete loose rock check dam has already been stopped, because there is no further financial support for the work. Infrastructure works are not expected to be continued by the villagers without support. Some maintenance and basic repairs will most likely be carried out, but preventative maintenance is doubtful.

In forestry extensive areas have been planted, restocked or protected. The sustainability of these activities is in doubt since the benefits that the communities presently receive from these areas appear to be small compared with the efforts of reforestation and firefighting. In Dir Kohistan the degradation problems are very severe. The project has only just started with range management. It also started with the preparation of Joint Forest Management (JFM) Plans, but this approach requires pilot testing and probably adjustments to the existing forest laws. Reversing the degradation of watersheds in the degraded project areas requires concerted efforts of the government of Pakistan, the district governments and the local population with long-term support of donor organisations.

JFM (of state forests) can only succeed, if the benefits that the villagers derive from the management are considerably increased. The sustainability of a recent JFM

proposal (Galiat) is very doubtful. The document is ambiguous, and appears to offer little to the community, to leave too much power with the Forestry Department (FD), and to miss a sound legal basis. The FD could look into the possibility of increasing the stake of the communities in joint forest management, e.g. by allowing under certain conditions the selective cutting of trees or the culling of certain non-threatened wildlife species. This would require a long period of trust building and the strict and just implementation of protection laws and of the management regulations. (More detailed remarks in Annex I-NRM-2).

Sustainability of many of the measures introduced by the project requires a much longer period of financial and technical support. Financial support should be gradually phased out during the lifespan of a project, for example by decreasing the project support from 70% to 50% and later to 25%.

One of the immediate NRM related objectives, as specified in the financing agreement was:

- to increase environmental awareness, and to reach a consensus on the need to adopt protection measures, at the local level;

The immediate NRM related objectives have been largely achieved. Environmental awareness among villagers interviewed appeared considerable among of the men, but still quite limited among the women. COs/VOs appeared convinced of the need to carry out NRM activities. The increased awareness is likely to have a positive effect on future NRM decisions of the population, but the rather abrupt end of the project and the sudden disappearance of financial support will most likely result in many of the villages/COs/VOs waiting for a next project to provide further support for conservation measures.

9 Conclusions and Recommendations

9.1 Overall outcome

Beneficiary participation: ERNP has used a bottom-up participatory approach to enhance beneficiary participation in all stages of project planning, design, implementation and post-project management of the project activities. Formation of COs and VOs through a participatory approach has provided a forum for the beneficiaries to function as a collectivity. The participatory approach worked because operating as organized groups helps individuals to attain certain goals that are beneficial to them all but cannot be achieved by them individually through their individual action. Active participation in project activities along with cost-sharing has given the beneficiaries a strong sense of “ownership”. Communities in the project areas have developed capabilities to organize themselves and these skills have been strengthened through project support.

Being organized in groups have opened up opportunities for communities to access resources from government line agencies, donor agencies, local government, NGOs and new projects coming to the project areas. Establishing linkages with these agencies would increase chances of sustainability of the CBOs organised under ERNP. Several VOs of MKKS, Galiat and DK sub-project areas have already registered themselves with the Department of Social Welfare and the CCB. One of the direct benefits of being registered with the Department of Social Welfare and/or the CCB is that the CBO/NGO gets a legal status among private and government institutions. Registration makes the organizational rules legally enforceable. Registration can also help receive funding from any international donor and any government department, as long as it can meet the specific requirements and conditions of grants being offered. Funds are available from CCB for development activities on a cost-sharing basis – 80% by CCB and 20% by the beneficiary groups. Village Organization funds created through project activities can be utilized to access matching grants.

It needs to be pointed out that despite project’s success in ensuring beneficiary participation, the project failed to attain full involvement of local population. The degree of involvement of local population varied between the three sub-projects due to use of different organizational approaches. This was the case in Galiat and Dir Kohistan. These two sub-projects faced management problems from the Project Management Units which must have contributed to their lower level achievement.

Special efforts were not made to target the poor and socially vulnerable groups.

Women and development: One of the strengths of ERNP is that it has recognized women as direct beneficiaries and has made available extension information and technologies directly to women. Organizing separate groups for women is much appreciated by the women themselves. All the female groups met by the Mission invariably mentioned that this has provided them with a forum to discuss their

problems and seek solutions. Attending monthly meetings has increased women's mobility and have given them confidence to speak up in meetings. Women everywhere were found keen to have education facilities for female children and in some cases adult literacy program for themselves. These are very encouraging signs. Construction of spring water harvesting tanks and installation of hand pumps for drinking water supply, construction of suspension bridges, roads and trails have benefited everybody especially women by significantly reducing their time previously spent on collecting water and gathering fuel. Introduction of fuel-efficient stoves in MKKS and Galiat has reduced their time and effort spent on fuel gathering. Income generating activities targeted towards women by providing improved variety of poultry and improved seeds for kitchen gardening has benefited them and their households at least in two ways. First, more consumption of home grown vegetables and eggs have contributed to improved nutrition; and, second by making small cash available to women through selling some of these products.

Having said this, it must be highlighted that gender balance in the COs/VOs has not been achieved in Galiat and Dir Kohistan. Women's participation could be improved in Galiat by not making marked reduction in minimum household representation required for forming female VOs. More concerted efforts should have been made in Dir Kohistan to involve women.

Human resource development: Skills and capabilities of the project and line agency staff have been strengthened. Staff training on beneficiary participation has brought attitudinal among some of the staff, if not all. A cadre of male and female Village Extension Workers (VEWs) in agriculture, livestock & poultry and forestry has been developed at the grass root level. The VEWs are providing required services (vaccinations and curative treatment of livestock) introducing improved practices and teaching and demonstrating new skills to the communities. A major impact of the VEWs has been a significant drop in the mortality rates of livestock and particularly of poultry.

Not a single local woman was trained either in Galiat or in Dir Kohistan as Village Extension Workers. The situation in DKP is understandable but there is no satisfactory explanation as to why this did not happen in Galiat.

VDPs: The planning of activities in the VDPs does not indicate a time frame for interventions and only include targets for some activities. The underlying reason is that the VDPs were prepared in retrospect at least partially. The Mission felt that there are some misconceptions, especially among the communities, about the VDPs. A wide variety of interventions are included in the VDPs identified by the communities as their felt needs. The communities were expecting that all the interventions listed in the VDPs would be implemented. On the other hand, the project made no promise that everything included in the VDPs would be delivered. The consequence was that in many communities the beneficiaries lacked a clear understanding that the project has ended because little of what was included in the VDPs have been achieved. Hence for them the project is incomplete. All the groups visited by the mission mentioned roads, drinking water supply, education facilities especially middle schools (up to grade viii) for girls, and health and hygiene facilities as their priorities. These are included in the VDPs. Although these activities do not fall within the scope of the project activities directly limited efforts have been made by the project to bring in

those facilities to the project villages through establishing linkages with the relevant government agencies and large NGOs. The project, could certainly play a more proactive role in this respect.

Apex bodies and clustering of villages: Apex bodies and clustering of village organizations have been fully or partially completed in all three sub-projects. The Apex bodies already formed needs crystallizing, developing management skills and strengthening their position within the communities. In the absence of the project activities there is a vacuum as to how these requirements are to be fulfilled. From this perspective, the project is still incomplete. There was no provision of gradual withdrawal of project support. The Apex bodies have been formed hastily without much thought on viable alternatives. The fundamental groundwork of horizontal and vertical linkages between the COs/VOs has not been established. ERNP exit strategy was developed as late as in December 2003. Contents of the document clearly indicates that the Exit Strategy was prepared primarily to fulfill requirements of the PC-1s of the sub-projects.

There is a risk that in the absence of guidance from the project the Apex bodies may operate as independent entities and as politicized bodies serving their own interest rather than that of the communities which they represent.

Linkages and networking: The project has done a very unsatisfactory job in terms of establishing linkages and networking to ensure “aftercare” facilities for the beneficiary communities in the post-project period. No serious attempt has been made to establish linkages with national credible NGOs such the Agha Khan Rural Support Programme (AKRSP), National Rural Support Programme (NRSP) or the NGOs operating in the project areas to form partnership. SRSP (part of NRSP) and some local NGOs are operating in MKKS and Galiat sub-project areas. The project interacted with these NGOs from time to time but forming partnership was not considered. This is an “opportunity missed” as projects come and go but NGOs continue to work in their target villages for a prolonged period.

Lack of data: One of the weaknesses of the ERNP is that no baseline socio-economic data is available for the project villages. This makes it impossible to assess poverty alleviation impact of the project. It is always useful to have knowledge on the differences between the participating and the non-participating households. It is possible that very poor households might not have participated in the project activities because of: (a) lack of ability to undertake the compulsory weekly savings; (b) and not being able to attend meetings. Members of poor households are busy during the day earning living and undertaking household chores including grazing livestock, collecting fodder and collecting fuel wood. Meetings were held by the SOs during day time. Physical distance from the central meeting place could also be factor contributing to non-participation particularly in case of women.

Project approach as opposed to process approach: One of the shortcomings in project design is that the ERNP required a “process” approach to facilitate development of sustainable community based organizations (CBOs) which is more flexible as opposed to a “project” approach which is more rigid in terms of time available to prepare the ground works. A long gestation period should have been allowed before forming community organizations. The intended beneficiaries should

been thoroughly briefed over and over to make them understand the objectives of the Project and the roles and responsibilities of all parties concerned. They should have been given sufficient time to consider whether they would like to participate in the Project activities or not. This would have helped people to make an informed decision. Community organizations should have come at a much later stage.

9.2 Sustainability

Social sustainability: Social sustainability cannot be achieved in a short time. It takes a long time to achieve sustainable social development – it requires a process approach. It involves a lot of learning from the beneficiaries side new ways of doing things, adopting a culture of working as a collectivity, absorbing a lot of information, changing behavioural pattern and attitude. During the project period these activities were facilitated by the project through extension services, administrative and management support, technical support and, above all, a substantial financial support. All these have stopped at the end of the project. Measuring social sustainability of externally induced community organizations is difficult as it can be assessed through the collective actions undertaken by the groups. This is usually done by developing a set of indicators to monitor the performance of the organizations and therefore the potential of their sustainability. Five to seven indicators is considered enough such as group composition, characteristics of the office bearers, by-laws, accountability of the office bearers to the group members, a transparent bookkeeping system, conflict resolution mechanism, and introduction of gradual sanctions. It is not enough that the groups have these things in writing or as documents what needs monitoring is how effectively these activities are carried out by the groups. In the best of knowledge of the Mission, no such activity has been undertaken by the project. Only thing that was done was a maturity assessment of the COs/VOs conducted by beneficiary groups facilitated by the project staff. This exercise was undertaken in MKKS and Galiat on 50% of the organizations formed. More than 50 indicators were used for this assessment and it is not surprising that this data was never processed or used to improve organizational performance. ERNP was a 7 years project, but as discussed elsewhere in this report due to administrative complexities between IUCN and the EU the project lost an effective functioning period of about 2 years. In addition, community organizations were not formed at the same time. Intervention in the target villages was phased over a period of 4 years. Group formation activity was slowed down during the period of IUCN's absence of 20 months as very little money was available to undertake routine project interventions. Together, these resulted in some groups being 6 year old (formed in 1998) and some less than a year old (formed in the last year of the project). Although the project was extended till June 2004, working with beneficiary groups were significantly scaled down after December 2003. There were two reasons: (i) it was decided not to undertake any new activities; and, (ii) Social Organisers and other project staff were busy organizing Apex Bodies as exit strategy of the project.

In the absence of any monitoring data, assessment of the potential sustainability of the community organizations was based on Mission's observations from group meetings and individual discussions held with beneficiary groups during the field visits. The impression is that some groups will continue under certain conditions such as strong and dynamic leadership from within the group, benefits to be achieved by continuing

as a group from the government, NGOs, new projects coming to the area and the private sector. The other groups will either become inactive or gradually wither away. During field visits the Mission came across several cases where group members started leaving the group by withdrawing their individual savings. These people associated group activities with the presence of the project and especially to get tangible benefits from the project. The project was perceived by many beneficiary groups as a rural development project and they have valid reasons for that. The project offered a lot of goods and services – public and private. Goods and services targeted to individuals do not necessarily require being part of a group especially in the absence of the project when no more goods are coming. Increased production and income earning activities can be and are being carried out by people on individual basis.

9.3 Alternatives

Experience from many South Asian countries suggests that an efficient way of ensuring sustainable management of natural resources through community management is to work in partnership with NGOs. The concept of government and non-government organisation partnership (GO-NGO partnership) is being promoted by donors and other development agencies. This approach has proven to work as it combines the NGOs' expertise of working with communities with the technical expertise of the relevant government agencies. This type of partnership will require assessing the ability of the interested NGOs to participate in natural resources management projects to deliver social mobilisation, awareness raising, consensus building and empowerment at a very early stage and prior to implementation. Their training needs should be identified and addressed.

At least, three steps can be identified that need to be followed for the promotion of sustainable management of natural resources through community based organizations (CBOs).

Step 1: Address the NGO capacity requirements identified above. Then, conduct a Needs' Assessment Survey with resource user groups and other stakeholders. This would establish the perceived needs of the community regarding improvement of their natural resources.

Step 11: The NGO then carries out information dissemination and awareness raising campaigns. Additionally, the NGO would provide assistance in developing CBOs or strengthen CBO capacity where such organisations exist, deliver training on group formation and management techniques, bookkeeping and accounting and assist in fund raising activities of the CBOs through individual savings. This will take at least two years to do a thorough job. Once the CBOs have raised sufficient funds they should be encouraged to think about small interventions that they can undertake and continue to maintain with their own limited efforts and funds. At this stage, technical assistance and advice will be needed from the local office of the Forestry Department. Parallel to such a Phase small interventions partially funded by the project and partially by the project will be implemented to create confidence in own abilities.

Step 111: The CBOs need to acquire experience of successfully managing small interventions. This is needed especially for ensuring equitable distribution of the benefits generated through the interventions undertaken by them. They would then be more confident about undertaking bigger and more profitable interventions that may take 3 years or more to show a return.

These three core steps would address the four design features listed below:

(i) Having a longer project gestation period allowing beneficiaries to gain confidence, become empowered, and generate their own funds through savings programme with the assistance of the NGOs.

(ii) Promoting low-cost resource management systems. These are more affordable to the people and likely to be more sustainable.

(iii) Developing a sense of ownership, and to exploit natural resources in a sustainable manner.

(v) Providing NGO support for an extensive period to fulfil the objectives mentioned above.

Acting on these issues will promote the community based natural resource management. Introducing these recommendations will require changes at the policy level beyond the jurisdiction of the Forestry Department and the Department of Environment and a change in mind set at various levels of government institutions. Critically, it requires bureaucrats without political fetters to promote unison between policy and practice.

- Local funding by GoP/provincial governments. Funding insufficient to complete project. Support to guide the approach towards sustainability required.
- NGO's. The next best thing, but most have a limited package of supported activities.
- Bridging phase, until maybe EU or other donor picks up the pieces in late 2006.
- Do nothing and let all the investments go to waste.

9.4 Lessons Learned

Project inception

- Financial resources should be available right from the start to avoid delays in implementation
- Agreement between all partners on the project approach should be achieved early on.
- Agreement between all partners on the project approach and the roles and responsibilities of the partners should be achieved early in the project life.
- Strategies including those on the exit should be prepared/started earlier;
- Baseline data should be collected and made presentable;
- Areas requiring TA support should be more properly identified

Project financing

- A smooth and timely flow of funds should be ensured throughout the project's life. Erratic financial flows hampers the pace of the activities and damages the credibility of the project in the eyes of the communities.
- Flexibility in spending and adjusting the budget is required to allow for timely implementation of participatory project activities

Project management

- The project management should be allowed to make full use of the in-built flexibility of the financing agreement and the PC-1's.
- Funding agencies should find a balance between keeping the momentum of the project going and strict adherence to rules and regulations
- Consistent and clear procedures and a clear definition of the roles and responsibilities of all partners could prevent or mitigate crises and avoid wasting human and financial resources
- All stakeholders should be involved in the preparation of the annual work plans to create a feeling of ownership.
- Regular staff coordination meetings for planning, monitoring and evaluation of activities are essential. Simple and transparent project procedures must be adhered to.
- Monitoring of activities is must for ensuring timely execution of activities and management feed back.
- Attitudinal change of many of the partners/stakeholders is often required for successful implementation and sustainability. Project planning should allow sufficient time for this change to take place.

Project approach

- To ensure sustainable natural resources or rural development, a process rather than a project approach is required.
- Analysis of stakeholders leads to understanding between villagers and project staff and builds trust and respect. This trust and respect will be reinforced when actual problems, which the villagers are facing, are addressed. This can be done by facilitating community conflict resolution, or by interventions addressing other problems. These activities will strengthen the process of community group formation.
- Participatory approaches prove very useful for village level decision making, fostering ownership of activities and providing transparency and accountability.
- Participants in participatory village level planning will learn that much can be achieved by building consensus and unity.

Project implementation and monitoring

- Continuity in the contracts of the project partners is essential for project implementation
- Fielding of technical support missions should start as soon as areas in which technical support is required have been identified.
- Collecting baseline information at the start of the project and regular monitoring of simple and relevant indicators is essential to provide information for adjusting the project's approaches and activities
- Technical evaluations and follow-up of project interventions should be carried to guarantee their quality and sustainability.

- Participatory M&E is essential, creates awareness and understanding within the communities and provides information for course corrections in the planning and implementation of interventions.

Communities and HRD

- Capacity building of community and staff members and creation of a cadre of Village Extension Workers (VEWs) contributed towards successful implementation and sustainability of interventions.
- Participatory village planning for the formulation of village development plans provided communities with a vision for the future and allowed them to search for solutions to their problems.
- Capital formation in CO/VO Funds proved to be a binding, but not necessarily sustainable, factor for communities.
- Study and exchange visits for CO/VO members are crucial for awareness raising
- Involvement of females in NRM activities is essential, since they are heavily involved in activities that have an impact on the natural resources. Organizing women (in COs/VOs) is required for successful interventions.
 - Continued awareness raising on environmental issues remains necessary.

Technical interventions

- Environmental issues requiring research or studies and the design and implementation of pilot schemes, such as rangeland management and joint forest management, should be addressed early in the project
 - Integration of the socio-economic and environmental aspects of project activities should be considered in the implementation of technical interventions. Activities should be well integrated in the existing farming systems, finding a balance between increasing productivity and maintaining the sustainability of the ecosystems concerned.
 - Technical monitoring and follow-up of project activities is necessary to guarantee the measures are technically correct, effective and well adapted to the local situation.
 - Soil conservation activities may need to be split into two types: those with economical benefits (e.g. protecting property or infrastructure) and those with mainly environmental benefits. The latter may provide income from labor, but is not expected to be sustainable. The former should become sustainable at the end of the project.
 - In its present form and with the existing lack of a sound legal basis, JFM is unlikely to be of interest to the communities. A full economic analysis should be carried out for a number of pilot sites. More benefits of JFM for the communities are required.

Project continuation/exit

- To guarantee the proper implementation of an exit strategy, such a strategy should be developed early on in a project and it should be clear if the project will be extended or not long before the project agreements expire.
- Project support for activities should be gradually decreased during the project's life to increase the chances of attaining sustainability.
- Towards the end of a project it should concentrate on providing technical support and training for activities with clear economic benefits for the

communities and should only provide financial support for activities that have mainly environmental benefits, but will in the long run lead to a better environment for the communities to live in. The latter could include rangeland management and Joint Forest Management of communal or state forests.

- In the last phase, the project should become more and more demand driven, reacting to requests made by the communities through CO/VO resolutions. After the project these resolutions/requests could be addressed to other agencies/NGO's that may be able to assist the communities.

Galiat

Project Management complexities can significantly reduce project efficiency; Viewing NRM as being more than just planting trees could have improved project achievements.

DK

- Religious leaders and elders of the area must be taken into confidence right from the beginning.
- The individual attitude and behavior of the program leader plays a vital role in success or failure of the program.
- Vested interest groups and age-old traditions should be approached tactfully and strategically.
- Project staff should strictly observe the culture, traditions, values and norms of the area.
- The project area has a potential for regulated eco-tourism

EU

Transparency in decision making improves project efficiency

IUCN

A partner bearing more responsibility for the process of interventions could also be an asset for the project

TA Agriconsulting

Working under difficult circumstances significantly reduces effectiveness.