

BACKGROUND TO AKRSP AND RESOURCE MANAGEMENT

Scope of Paper

Objectives of the Study

The overall objective of this study is to explore those issues in community organization and resource management that represent the common concerns of the International Centre for Integrated Mountain Development (ICIMOD) and the Aga Khan Rural Support Programme (AKRSP). These concerns are related to the design and implementation of rural development programmes. They are motivated, in the case of AKRSP, by a desire to develop a model for high-mountain development in northern Pakistan that can enable the people of the region to improve their incomes in a sustainable and equitable manner. ICIMOD's motivation is to acquire lessons for the future by comparing the rich and diverse experiences in rural development in the Hindu Kush-Himalayan Region.

ICIMOD and AKRSP share the following broad perspectives:

- o that sustainable productivity and sound environmental management is a long-term goal of rural development;
- o that particular attention needs to be paid to organizational structures at the project and community levels, in addition to the attention that is normally paid to technical and financial constraints; and
- o that organizational resources are needed to facilitate implementation and enhance local participation in rural development programmes.

These perspectives have been the basis for collaborative work between AKRSP and ICIMOD since 1985 which has consisted of:

- o a pilot study on the inter-relationship of community management of rural resources, with accelerated development efforts, conducted in the project area of AKRSP;
- o a workshop, co-sponsored with the East-West Center, on Institutional Development for Local Management of Rural Resources, the proceedings of which are summarized in Dani, Gibbs, and Bromley (1987); and
- o discussions, with the participation of the Aga Khan Foundation, on preparations for the present study.

In addition, AKRSP sponsored a workshop on Women and Resource Management that is also pertinent to the set of common interests.

Methodology

This study follows the common methodology proposed for all the country studies in the ICIMOD programme. The analytical approach, however, is the responsibility of the author and is based on his own discipline (economics) as well as on AKRSP's institution-building experiences over the last five years.

The author has been part of the senior management of AKRSP since its inception in 1982. He was also associated with a large number of the village studies that form the basis for this paper. Thus, the need for field surveys was reduced. The field work necessary for acquiring information, that was not already at the author's disposal, was carried out by an economics graduate and an engineer with experience in rapid appraisal techniques.

The study uses a combination of data collection techniques: (i) collation and analysis of the considerable amount of data (particularly village studies) available with AKRSP and the Government; (ii) open-ended interviews with relevant government officials and project staff; (iii) field investigations in nine villages with varying characteristics; and (iv) participant observation of project activities. Field work was conducted with rapid appraisal techniques, borrowing data collection and illustration methods from appropriate approaches and authors.

The focus on change is on changes in institutions, markets, and technology. Rapid change followed the abolition of the region's small feudal states in 1974 and the opening of the all-weather Karakoram Highway (KKH) in 1978. Other changes came with new development initiatives, including the AKRSP in 1982, and responses to these changes by the communities of the region. The mixture of development changes has been paradoxical in maintaining frugality. A similar analytical approach was used by this author (Husain 1987) in examining household irrigation practices and village irrigation management systems in Gilgit.

Selection of Villages for Case Studies

Since AKRSP covers almost 95% of the rural population of Gilgit and operates in all those villages for which usable documentation is available, all nine villages selected for this study belong to the AKRSP project area. The villages were selected according to the following criteria:

1. access; on-off the KKH,
2. agroecological zone; one-crop, two-crop, or two-crop transitional,
3. number of AKRSP-sponsored Village Organizations in the village,
4. scale of village; large, medium, or small - and the number of AKRSP-sponsored Village Organizations (VOs) operating in the village, and
5. whether or not off-land employment opportunities are substantial.

The nine villages selected are described in terms of these five criteria in Table 1.

Although all these villages have received assistance from AKRSP, considerable variation can be expected in terms of the incentives involved when villagers adopt different elements of the development package offered by AKRSP. Similarly, the villages differ in their approaches to cooperative enterprises and community actions for managing common problems and resources. There are also differences in their access to education, social services, and markets; and in their

ability to identify and support development activities from within the village. Finally, the villages have varying access to natural resources, such as for irrigation, water, land, forests, and pastures. Therefore, it is expected that a comparative analysis of the nine villages selected for this study will be able to draw inferences from both observed similarities and differences.

Table 1: Some Basic Characteristics of the Nine Selected Villages

Village Name	On KKH?	Agroeco Zone	No. of VOs	Village Size	Strong Off-land Opport. ³
Broshal	No	1-crop	1	Medium ²	No
Khaiber	Yes	1-crop	1	Small	Yes
Passu	Yes	1-crop	1	Small	Yes
Roshanabad-Sherabad	Yes	2-crop transit ¹	1	Small	Yes
Rahbat	No	2-crop	2	Large	No
Rahimabad	Yes	2-crop	2	Medium	Yes
Oshikhandass	No	2-crop	3	Large	Yes
Shergilla	No	2-crop transit	3	Large	No
Thingdass	No	2-crop transit	1	Small	No

Notes:

1. Double-cropping extends up to about 1850m above sea level (masl), but villages at that altitude cannot expect the second crop (maize) to mature with certainty; these borderline villages are referred to as 2-crop transitional.
2. A medium-sized village has 100-150 households.
3. Strong off-land employment opportunities are evaluated subjectively by the author in terms of both seasonal and permanent jobs.

Introduction to Gilgit District and AKRSP

The project area of AKRSP comprises the three northern-most districts of Pakistan - Gilgit, Chitral, and Baltistan - situated between longitudes 71°2'E and 75°4'E and latitudes 35°3'N and 35°6'N; the region borders on India, China, and Afghanistan. The area covers 69,200 km² and has an estimated population of 830,000, scattered over 1,030 villages (AKRSP 1987b). The region

is extremely mountainous, since it is at the intersection of four of the world's highest mountain ranges - the Himalayas, Karakorams, Pamirs, and the Hindu Kush. Within this region, Gilgit District is the most privileged, in terms of accessibility and overall development. Its area is 28,500 km², with an estimated population of 286,000 living in more than 300 villages. There are some 30,000 farm families in Gilgit District and an urban population of about 40,000 (AKRSP 1987b).

The physiography of the region is rugged and hilly, with steep heavily dissected slopes, with water courses along the slope faces and valley bottoms. Due to secondary and tertiary incisions, landslides, and erosion, the landscape is highly irregular. The geology of the area is a mixture of igneous and metamorphic rocks consisting of slate, quartzite, limestone, marble, mica-rich gneiss, and crystalline schist. The terrain is naturally unstable and rockfalls and landslides are common occurrences.

The soil is mixed with stones and boulders, and the depth, aspect, location, and presence of seepage areas have more influence on production potential than the variation in the parent material.¹ These soils are low in clay content, and, due to extreme dryness, are very low in organic content. Under irrigation, they are susceptible to leaching and have a low water-holding capacity. The soils are naturally very low in nitrogen and low-to-medium in phosphorus and potassium. They are, however, suitable for a large number of annual and perennial crops.

The region lies just outside the monsoon area in a partial rain shadow. The region receives about 100-900 mm of rain annually, mainly as snow in the winter months. Agricultural production is sustained by irrigation with the glacial melt. The region can be best described as having an arid continental Mediterranean-type climate. Being dry and away from the sea, the prevailing thermal climate is continental and dictates both the length of the potential growing period and types of crops that can be grown successfully. The growing period at 1,500 masl is estimated to be 325 days, and at 3,000 masl it is 195 days (AKRSP 1987b). The nine villages selected for this study fall within this range.

Four distinct local languages are spoken in Gilgit District, in addition to Urdu, the national language. The area has a Buddhist heritage, overlaid by the three major Islamic traditions that are followed today. Until 1974, feudal chiefs - *Mirs* and *Rajahs*-governed much of the district under the supervision of the Political Agent of the Government of Pakistan. Today, Gilgit is one of the three districts under the Northern Areas Administration, controlled by the Federal Ministry of Kashmir Affairs and Northern Areas. The district is connected to the rest of Pakistan, and to China, via the all-weather Karakoram Highway (KKH) that was formally inaugurated in 1978. There are (1-3) scheduled daily flights between Gilgit and Islamabad, 600 km away by road, operated by Pakistan International Airlines; flights are subject to weather and operate, on average, about half the time.

Agriculture is by far the largest economic activity in Gilgit District and is the principal means of livelihood of 85-90 per cent of the population. (Detailed descriptions of the region's agriculture are given by Staley 1982, Saunders 1983, and Whitemen 1985. The region supports a range of farming systems, but nearly all contain common elements; cereals, grain legumes, fodder crops, small livestock, fruit and nut trees, vegetable crops, and fuel trees. Broadly, all the farming systems in the region can be described as arable crop systems with trees and livestock. In general, there is very little commercialization and no specialization in production. Indeed,

1. The information in the following three paragraphs is taken from background papers prepared by the AKRSP management

general, there is very little commercialization and no specialization in production. Indeed, farming in the region shows many of the symptoms of transition from a subsistence economy to a semi-commercial economy. The following picture of Gilgit's traditional agriculture by an agronomist (Whiteman 1986) describes the farm-household and its resources succinctly:

A typical village will contain about 60 households with an average family size of eight people and an irrigated area of 0.75-1.0 hectares in double-cropped areas (up to about 2,000 m altitude) and 1.5 to 2.0 hectares in the single-cropped area. Wheat is the dominant crop; maize became popular some 55 years ago and has largely replaced the earlier-maturing Panicum and Setaria millets and buckwheat that now persist only at the upper end of the double-cropping zone. Up to a quarter of the land may be under fodder crops, mostly lucerne for hay for winter use and shaftal clover for green cutting in spring. Pulses are rarely grown, and a small area is allocated for vegetables and potatoes. The area is deficient in grain and up to a third of the wheat that is consumed is from a subsidized quota. Yet in spite of the shortage of land for cereals, a range of multipurpose trees for fodder, fuel, timber, and fruit are grown along field boundaries around the house and on any steep but irrigable land. Poplar, willow, mulberry, apricot, and Russian olive (Eleagnus) are the most common, with walnut, peach, grape, apple, almond, pear, fig, and pomegranate widespread. There will be a pair of oxen, one or two cows, a calf, perhaps 20 goats, 10 sheep, 15 hens, and a donkey.

About 1,500 meters higher there is a sparse communally grazed alpine pasture about two days' walk away where the livestock are taken for a four-month period in summer. Farther up the mountain, in small side valleys, are stunted gnarled remains of open juniper forest with a little birch heavily overcut and grazed that provides the firewood for cooking. Between the village and the mountain pasture is often a small meadow or barley field wherever the valley becomes wide enough.

This little scenario depicts the total resources available to meet all family needs for house construction material, food, furnishings, woolen garments, dairy products, livestock fodder, and farm implements as well as cash for small sundries (paraffin, tea, matches, salt), though these are more often bartered for. Nowadays most households have a male member working part-time or full-time outside the area as a source of cash. Despite the material poverty and frugal life, there is a robust quality apparent in a life lived in equilibrium with an adapted farming system from a consistent resource base.

Changes taking place in rural markets and agricultural technology are affecting the above situation in significant ways. With improved communications, a majority of the district's farmers are now using tractors, threshers, and new varieties of wheat; an even larger proportion use chemical fertilizer. Timber is imported in large quantities from the neighbouring district of Diamer; wheat, rice, dairy products, vegetables, cooking oil, livestock, kerosene, liquefied petroleum gas, cement and construction material, and a number of other items of daily use are now supplied from the plains of Pakistan. Able-bodied men migrate in large numbers within the region, following agricultural, construction and tourism activities, or they go down-country in winter to work for cash. Increasingly, women are becoming involved in running the farm-household in association with old men and children. Small hydro-electric units provide night-time electricity for lighting. New roads connect remote valleys to the KKH. Education is becoming more widespread. The value of time is rising, and labour-intensive activities are increasingly being performed in less labour-intensive ways or else given up. Large amounts of credit are being made available for agricultural development, construction, and commerce.

In short, the allocation of resources in Gilgit is being subjected to rapid and pervasive change. After centuries of isolation and low-income equilibrium, the region's rural economy is characterized by constant change and the opportunity to reallocate resources from low-payoff options to high-payoff ones.

Organization, Objectives, and Approach of AKRSP

AKRSP was established by the Aga Khan Foundation in 1982 as a private company limited by guarantee. It is a non-profit, non-sectarian Pakistani organization, with its own Board of Directors for policy-making and direction and a management group in the project area (headed by the General Manager) for day-to-day operations.

Although seed money for AKRSP was (and is) provided by the Aga Khan Foundation, the company has received generous financial assistance over the years from the Canadian International Development Agency; the Alberta Agency for International Development; the Overseas Development Administration of the United Kingdom; the United States Agency for International Development; the Royal Netherlands Government, the Commission of European Communities; the Government of Pakistan, Women's Division; the Ford Foundation; OXFAM (United Kingdom); and the Aga Khan Foundation network in Canada, U.K., U.S.A., and Pakistan. In addition, AKRSP has received credit from Habib Bank Limited (for short-term production loans) and the regional Development Finance Corporation (for long-term development loans). Finally, AKRSP has, in a few significant instances, pooled its resources with development funds put at the disposal of elected representatives in Gilgit by the Government.

AKRSP started operating in Gilgit in December 1982 and subsequently extended its operations to the districts of Chitral and Baltistan. Its project area now includes followers of three major Islamic traditions in roughly equal proportions. All its staff are Pakistanis, and all the field and support staff are recruited from the project area. AKRSP's activities now extend to about 800 Village Organizations (nearly half of them in Gilgit District), and include programmes for social organization, women-in-development, physical infrastructure; particularly for irrigation and communications, agricultural and livestock research, extension input supply, appropriate technology, commercial and industrial development, savings and loans, resource management; particularly forestry and pasture development, and training in a wide range of practical and managerial skills. In addition, AKRSP is working with government and private agencies to provide Village Organizations (VOs) with access to basic health coverage, education, and improved living conditions. Wherever feasible, AKRSP provides services, through existing private or government entities, and works to create effective links between these and the VOs rather than duplicating the work of existing organizations.

AKRSP's Second Phase Strategy Paper describes the programme's objectives in the following words (AKRSP 1987a):

The broad objective of AKRSP is to increase the capacity of local people to identify and utilize opportunities and to solve their own problems so that they can plan and implement development programmes leading to increased incomes and employment (without significantly increasing inequalities); to improved health, nutrition, education and living conditions; and to improvements in the sustainability and productivity of the environment. Thus AKRSP is designed to promote development in an equitable and sustainable manner. It is also conceived, from the outset, as a self-liquidating organization, able to work itself out of a job in any location within approximately ten years. The aim is to leave in place local institutions capable of facilitating further progress into the future.

The basic planning tool for AKRSP is a series of diagnostic dialogues carried out with villagers (detailed description in AKRSP 1983). The General Manager initiates the first dialogue, explaining the objectives and methods of AKRSP and inviting the villagers to identify a project that could be undertaken and maintained by the villagers for the benefit of the village as a whole.

The second dialogue determines the feasibility of the project under the technical supervision of a competent senior manager. Field operations are managed by the Social Organization Unit (SOU) and the products of the second dialogue are blueprints and cost estimates for the project.

The third dialogue starts with a discussion of the finalized scheme. The terms of partnership between AKRSP and the villagers are also discussed and AKRSP describes the form and extent of assistance it can provide and villagers explain how they will plan and implement the scheme, develop skills, meet regularly as a disciplined organization, and establish group savings. If successful, the third dialogue results in a village-level project for the Village Organization.

The key concept in AKRSP's approach is that of the Village Organization - this is a broad-based coalition of all those village residents whose common economic interest is best served by forming a multi-purpose development organization. The VO is the executing agency for all village-level projects sponsored by AKRSP and its collaborators. This institution is established, in the first instance, by the promise of a grant (an average Rs150,000) for a village-level Productive Physical Infrastructure (PPI) project. Since farmers attach great importance to improvements in their common physical assets, the investment by AKRSP initiates a process of disciplined organization and collective management in the village. In turn, the formation of the VO enables the village to complete the PPI project more quickly and cheaply than would be possible otherwise. There is, thus, a symbiotic relationship between village organization and the grant-funded PPI; each enhances the effectiveness of the other and results in income-generation for the villagers. The new social organization (the VO) is aided by the catalytic effect of the new economic infrastructure (the PPI) that the VO is implementing. Together, the VO and the PPI become vehicles and stimulants for local income and employment generation.

During the First Phase (1983-86), the principal focus of AKRSP was the establishment of village-level institutions for managing development and the funding of essential local infrastructure projects, one per VO, chosen by the VOs. During the First Phase, both AKRSP and the villagers invested in various types of productive common property on a very large scale. This experience demonstrated the potential for community management of financial resources and physical assets such as irrigation channels, link roads, storage reservoirs, etc. Besides contributing to widespread increases in income, the collective management of these resources has helped shape the VOs as institutions for village development.

AKRSP, Village Organization and Resource Management

To build upon the experiences of the First Phase, AKRSP's Second Phase strategy lays down the objective of improving *the integrated management of resources at three levels - farm, village and valley/watershed. This would include work on farming systems, integrated livestock-cropping-pasture systems at the village level, and contributions to valley planning and watershed management (AKRSP 1987a). The pursuit of this objective is expected to lead to:*

- o improvements in the productivity and sustainability of natural resources, i.e., greater sustainability of natural resource use together with increases in farm incomes; and
- o a greater capacity among the villagers for managing their common resources.

AKRSP's existing programmes have begun to address issues of:

- o land use and the development of new land;
- o irrigation development and water management;
- o forest management and forestry development; and
- o livestock and pasture development.

In implementing these programmes, AKRSP has benefited from collaboration with relevant government agencies, as well as the International Wheat and Maize Improvement Centre (CIMMYT); the International Union for Conservation of Nature and Natural Resources (IUCN); the International Centre for Integrated Mountain Development (ICIMOD); the International Institute for Environment and Development; and the International Irrigation Management Institute (IIMI). Collaboration with these agencies is a response to the realization that the development of village management capacity in the future requires *"a growing sophistication in the identification and analysis of opportunities and problems, and in the development of entrepreneurial response and of internal mechanisms of management and control"* (AKRSP 1987a).

AKRSP's experience with resource development programmes in the First Phase led to the recognition of the amount of women's involvement in, and dependence on, the region's natural resources. To a varying but increasing degree, rural women are involved in or affected by the management of land, water, forests, pastures, and livestock. In areas where men have been attracted to off-land employment opportunities, it is particularly important to improve the efficiency of the time and management inputs provided by women, in order to equitably improve the productivity and sustainability of natural resources. To this end AKRSP's work included the sponsorship of the Workshop on Women and Resource Management in Gilgit, in November 1987; the four background papers for this workshop are given in the reference section at the end of this paper. The objectives of the workshop were:

- o to help develop models of technological innovations in village management for a pilot project area, with the potential for replication elsewhere in northern Pakistan;
- o to identify the important interactions in resource management that need to be conceptualized in terms of integrated approaches;
- o subject to the preceding objectives, highlight the contributions to and dependence of the region's women on natural resources; and
- o to help establish and strengthen working relationships between AKRSP and agencies concerned with resource management.

Since this workshop, AKRSP's staff have been working on specific plans for pasture development, as well as on institutional mechanisms for valley-level efforts at resource management. The efforts are small and tentative, in the nature of pilot projects in association with experts from outside AKRSP.

World Bank Evaluation of AKRSP's First Phase

While it is too early to assess the new directions of AKRSP's Second Phase, the First Phase was evaluated by the Operations Evaluation Department of the World Bank, in September 1986. The evaluation report has since been published (World Bank 1987).

The World Bank report concluded that AKRSP's achievements "*are largely attributable to the effectiveness of the institution-building efforts at the village level.*" It observed that the management principles that are critical to this effectiveness include:

1. **The principle of the primacy of the VO.** The VO is the focal point for all AKRSP activities but its sovereignty is sacrosanct, although AKRSP is firm in keeping to the agreed conditions of the partnership. The VO and AKRSP are seen as contractual partners in so far as activities of the VO are supported but never undercut.
2. **The principle of continued attention to innovations.** Villagers and staff of AKRSP alike are encouraged to innovate, using a trial and error approach that is carefully monitored. The effect is to create a 'learning environment' of active improvisation and innovation.

The World Bank report also points out that the "*pursuit of these principles is aided by the flexibility of AKRSP as a small, independent non-government organization, relatively free of fixed procedures, hierarchical clearance, or internal constraints on actions. This flexibility facilitates the 'working' method of experimentation, adaptation, and trial and error innovation that is the hallmark of the program.*" The following characteristics of the project area appear to have worked to AKRSP's advantage:

1. institution-building could proceed with little or no competition, in something of a political and administrative vacuum;
2. a tradition of cooperation in the villages that is consistent with the VO approach; and
3. the high proportion of Ismaili villages in Gilgit District, favourably disposed to an Aga Khan-supported programme, gave an initial impetus which was invaluable, though only about one-third of the population of the project area is Ismaili.

The World Bank commended the institutional model of AKRSP that combines Village Organization and PPIs at the village level. At the same time, it found that the 'production model' was less well studied and conceptualized than the 'institutional model' and several changes were recommended in this area. For example:

1. **environmental and resource constraints are a major issue**, and while much is being done, further attention to this issue is needed;
2. **institutional development within and beyond the VO, especially relating to land and water use, warrants support.**

The World Bank report summarized its understanding of AKRSP principles in the following list:

1. small farmers in isolated communities require a village organization to overcome the disadvantages of everything being on a small scale;
2. VOs can be used successfully to promote formal savings and credit by individuals and the group, provided that control of the savings and credit remains with the group;
3. VOs can be employed to promote genuine participation in planning and implementation of rural development;

4. villagers can be effectively organized initially around economic, rather than social, sector activities;
5. a PPI project is an effective entry point and catalyst for the organization of villagers;
6. in order to implement a PPI efficiently and without exploitation, village labour employed should be paid;
7. regular savings, however small, are an essential part of the discipline of collective management and finance of development;
8. members of the VO can acquire the necessary organizational and technical skills, for which other villagers are prepared to pay, to serve themselves and their community;
9. the VO following these principles can take continuing responsibility for sustainable development of the resources at its disposal.

A direct operational implication of these principles is that the Village Organization is the missing link between conservation and development, between income-generation from a resource and its sustainable use over time. This can be considered an extension of AKRSP's First Phase approach to its Second Phase concerns with sustainable resource management, particularly the management of change through institutional and technological innovation.

Institutions, Laws, and Natural Resources in Gilgit

The Context of Institutional Change

Like many Third World communities, Gilgit is subject to the forces of social fragmentation, disintegration of values and institutions, and the alienation of social and economic life from the values, institutions, and resources of rural communities. These forces represent both a constraint on and an opportunity for institution-building.

In Gilgit, land and irrigation development as well as control over forests and pastures were traditionally spearheaded by feudal chiefs such as *Mirs* and *Rajahs*. They could use the authority of the State to induce or constrain their subjects (through forced labour and transfers, exile, and punishment) to construct new channels, rehabilitate old ones, develop new land, restrict the exploitation of forests, and enforce rules for summer and winter grazing. There was a system, therefore, for maintaining and increasing society's vital physical infrastructure and the natural resource base.

A general decline in feudal authority commenced with the arrival of the British administration in 1892. This decline appears to have become more pronounced in the last 35-40 years. The feudal States were formally abolished in 1974. The effect of the decline in feudal authority is evident in the slow pace of irrigation and land development and a diminishing natural resource base. For example, despite growing populations, no land settlement schemes were undertaken that matched the size of projects sponsored by the *Mirs*.

Whereas the *Mirs* had helped establish new villages, AKRSP's irrigation development programme has opened up additional land to existing villages in magnitudes that are at least as significant as the achievements of the *Mirs*. There is a significant difference, however, between how villagers perceive irrigation development and forest and pasture management. This perception has to do

with the perception of ownership. As feudal chiefs were replaced by government administrators, the forests and pastures of the feudal States became the *de jure* property of the Government of Pakistan, acting through the Forest Department of the Northern Areas. Irrigation channels, however, and lands contiguous to villages remained outside the Government's domain. Thus, when AKRSP arrived on the scene in Gilgit, it found the villagers keen to improve their irrigation infrastructure, but it has had difficulty organizing villagers to improve the management of their common natural resources. The situation now is that the Forest Department has *de jure* jurisdiction over much of the forest and pastures but the actual position resembles open access. Over-exploitation is observed and there is little or no investment in sustainable management.

AKRSP Experiences with Common Property Management

In the last five years, both AKRSP and the villagers have been challenged to devise new rules and conventions for the management of village resources, sometimes in an ambiguous legal and institutional situation. This has happened, particularly when the traditional status of a resource has undergone change or when new assets have been introduced.

An early example of great interest was that of land development. AKRSP-sponsored irrigation channels assisted villagers in converting low-productivity, winter grazing land into potentially high-productivity, multiple-use farm land. The grazing land, by tradition, belonged to the entire village, so all households descended from those who established the village had equal rights to it. But how were the villagers to implement AKRSP's principle of "private ownership and collective management" on this now-irrigated new land? The villagers responded with a full range of options on various combinations of ownership and collective management.

At one extreme, some villages simply divided up the new land by handing the plots over to individual households which then developed the land through their own resources. However, even these villages generally approached AKRSP for land development loans through their Village Organizations. At the other extreme, Khaiber village in upper Hunza has a VO that is the regional leader in terms of land and labour specialisation. The new land there is being developed as a single farm, and portions of it will be transferred to individuals for farming after it has been fully developed. The VO will continue to own the fruit orchard and the fruit-cum-forest nursery on the new land. Women have been trained to manage the nursery. All irrigation on the new land is undertaken by three specialists. There are various other village specialists, as well, and all are remunerated by the VO.

In between these two types of management system, there are wide variations in what the villagers have adopted. By and large, new land is divided up (usually equally, according to traditional rights) among individual households, but specific inputs may be managed collectively. These inputs include: loans for land development; transport and implements for land development; fertilizer; seed and saplings; the services of village specialists; and, quite often, labour pooled among neighbours. In terms of collective management issues, AKRSP's First Phase was dominated by the land development process. The major lesson for AKRSP was that it should not insist on the VO treating its new land as a single farm. It should, instead, encourage the rapid and equitable development of land through collective management of critical inputs.

A multiplicity of issues arose in the Second Phase as the VOs began to tackle non-traditional assets and the supra-village dimensions of collective management. For both, the VOs had to define new rules and conventions. Not surprisingly, they did so usually with reference to traditional patterns of management. AKRSP has catalogued and discussed these experiences in its Fifth Annual Review (AKRSP 1987c), and the experience with forest and pasture management is

too limited to offer operational generalizations at this stage. The case studies discussed in Chapter Two may assist with the articulation of a few operational guidelines for AKRSP.

The Legal Situation of Forests and Rangelands

This is governed by the Land Revenue Act, 1967 (XVII of 1967), Section 50, the Forest Act of 1927, and the Northern Areas Wildlife Preservation Act of 1975.

According to the Land Revenue Act, the presumed ownership of forests, quarries, and wasteland rests with the Government, unless there is a written record of rights to the contrary completed by or before November 1871. A record of rights was drawn up wherever land settlement took place. In Gilgit District, land settlement took place in only one of the five sub-divisions. Hence, in four sub-divisions, there is no question of records of rights. After deposing the *Mirs* and *Rajahs* in 1974, all land without a record of rights was resumed by the Government of Pakistan, Northern Areas Administration, under the Land Revenue Act. The Administration's Forest Department maintains, therefore, that the region's communities have no claim whatsoever over forests, except as provided by the Department under the Forest Act of 1927. The Department further maintains that the villages have an option only over *shamlaat* forests, i.e., those on land accessible to the village irrigation channels. Finally, the Department maintains that the forests of six of the nine villages selected for this study belong to the State and the remaining three villages are said to have an insignificant number of forests.

The concessions provided to local communities under the Forest Act are listed in (CDC 1987). These concessions differ according to the legal status of the forest. The ownership and management of natural forests are of three types:

- o private: usually commercially exploited;
- o state: state control of local and commercial use; and
- o reserved: ownership and management by the State.

The matter of community use rights arises for State forests (category 2 above). Briefly:

- o there are no rules for grazing, but it is prohibited in specified areas of National Parks under Section 7 of the Northern Areas Wildlife Preservation Act;
- o villagers within five miles of the forest, or with traditional rights over it, can apply for the use of standing timber for domestic purposes upon payment of a concessionary fee;
- o such villagers also have free use of any dead, dying, or diseased timber for fuelwood ("*in practice, many people ring-bark trees to kill them*"); those living more than five miles away need a transport permit which is free;
- o timber for commercial use may be extracted upon payment of a standard fee; and
- o fuelwood obtained by contractors for commercial purposes requires a charge of Rs.5 per 100 kg and a transport permit (fuelwood sells in many parts of the district for one rupee per kg).

There have been recent incidents that have eroded the Forest Department's unqualified control over the use and management of State forests. The most contentious case is that of the Chalt-Chaprote forest and this is discussed in Chapter Two. In this case, the Deputy Commissioner of Gilgit, acting on an application by the community, authorized the community to exercise control

over the neighbouring forest. Such control was previously completely vested in the Forest Department. Legal support for the orders passed by the Deputy Commissioner may conceivably be found in the Forest Act, but this has not been confirmed by the present author.

Local communities also contend that the procedures specified by the Forest Act before resumption or reservation of forest lands have not been followed by the Forest Department. In particular, it is alleged that villagers were not given the opportunity to establish claims over resumed land, nor was there a land settlement made by any Government.

In general, the ambiguous legal situation in Gilgit will continue to plague attempts at improved resource management. The options currently available to the administration are:

- o continue with the status quo which will result in a continuing and rapid depletion of forest cover and degradation of pastures;
- o seek to enforce the authority of the Forest Department which will lead to confrontation in a sensitive part of the country; or
- o offer to work with AKRSP and the Village Organizations which will be effective if the VOs can devise rules for internalizing the costs and benefits of resources use.

Given the constraints on the Forest Department, there is a recognition among sections of the Government that the last option potentially represents the most effective strategy. If this view can be articulated as official policy, then AKRSP and the VOs will need to respond to the challenge of developing institutions that can demonstrably sustain and improve the natural resources of the district.