

Access to Forest Resources in Hilkot Watershed, Pakistan

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Abstract

This study analyses local communities' access to forest resources in Hilkot watershed in Pakistan's North-West Frontier Province. This area's forests are held under a variety of ownership arrangements. The deeply dissected land tenure system and conflicts between the government and forest users have led to a drastic degradation of the resource. Although legislation theoretically limits the rights of local people, in fact the majority of them have access to forest resources. They fulfil nearly all their requirements from these forests but contribute nothing to their protection and development. The existing forest legislation and management systems have failed to achieve their objectives and if nothing is done to check degradation then the forests will soon disappear. The study argues for the introduction of participatory forest management. It gives options and approaches for the sustainable development of the forest resource that will also improve rural livelihoods.

Introduction

The Hindu Kush-Himalayas are home to natural resources that provide life-support to mountain communities and tens of million of plains dwellers. Forests are the most important of these resources as they provide a wide range of economic, social, environmental and cultural benefits and services. Mountain people have always depended on forests to fulfil their basic needs for fuelwood, fodder, leaf litter, timber, fruit and medicinal plants and for other essential inputs into the farming system. These forests also protect the natural resource base for growing agricultural crops and protect the upland watershed against erosion, thus regulating waterflow in downstream areas.

Only 4.8% of Pakistan's 88 million hectares are forested. This is a very low coverage compared to the average of around 26 percent forest cover for other countries. Per capita forest cover presents a gloomier picture. Pakistan has only 0.03 ha of forest per capita while the corresponding figure is 1.07 ha for developed countries and 0.50 for developing countries (Government of Pakistan 1992, FAO 1995). However, Pakistan's forests play an important role in the country's economy by providing employment to about half a million people, and by providing 3.5 million m³ of wood, and one third of the nation's energy needs (Government of Pakistan 2002). Most of the country's forests are in the northern areas with 40% in the North-West Frontier Province (NWFP). The NWFP forests are distributed over the Himalayas in Hazara division and in the Hindu Kush in Malakand division (Ahmed and Mahmood 1998; Poffenberger 2000, Suleri 2002).

Participatory forest management has emerged as a common strategy in the Hindu Kush-Himalayas to protect and manage forests. A key element of this approach is collaboration between government institutions, NGOs, and local communities. ICIMOD's People and Resource Dynamics in Mountain Watersheds of the Hindu Kush-Himalayas Project (PARDYP) operates in Nepal, India, China, and Pakistan. It is promoting participatory forest management and developing options for the balanced, equitable and sustainable development of natural resources.

PARDYP is investigating equity and poverty linkages and advocacy issues to promote more equitable access to the common property resources of the Hindu Kush-Himalayan region. This programme involves preparing a series of case studies on communities' access to common property resources. The present paper is the Pakistan case study.

Study Site, Objectives and Methodology

Hilkot watershed, in the NWFP's Hazara division is a mosaic of diverse ethnic, socioeconomic and plant communities. Forests are held under a variety of ownership arrangements broadly divided between state and private forests. In Hilkot, watershed forests are managed under the Hazara Forest Act, 1936, that emphasises protection and limits community access. However, this legislation has achieved little and the forests have been degraded and owners and users now benefit less from them than in the past. This has led to growing concern to find ways of sustainably managing these forests. This concern is most marked to conserve upland forests that provide so many of the daily needs of upland communities.

The objectives of the Hilkot case study were to:

- assess the status of community access to forest resources with respect to gender, ethnic, social and political issues;
- identify flaws and deficiencies in the local system of forest management;
- assess the local institutional capacity for decision making, planning and policy implementation and its response to field issues; and
- develop options and approaches to improve equitable access to forest resources that ensure better livelihoods for mountains communities and sustainable development of the resources.

This report analyses the institutional setup that regulates communities' access to forest resources in Hilkot watershed. Primary data was collected by asking set questions to local people and by holding focus group discussions across all of Hilkot watershed's communities. Secondary data on the institutional set-up, forest legislation, forest policies, and baseline information was obtained from PARDYP, the local forest department, government records, and other publications.

First of all a preliminary survey was undertaken. This allowed the questionnaire to be tested and refined and a list of all 800 village households to be built up. Individual sample household heads were selected by random sampling. In all, 80 household heads were interviewed with an equal number of men and women. Thus the sampling intensity was 10%. Besides, focus group discussions were held to include owner groups, tenant groups, and officials from the provincial forest department.

Guzara and Reserved Forests

Guzara forests

Hilkot's forests are divided into reserved forests (state forests) and guzara forests (private forests). The guzara forests are held individually by families or jointly by communities. Except for the period 1981-92, these forests have been managed by the forest department. For the 12 years from 1981 they were managed by forest cooperative societies.

Guzara forests were set apart in 1872 to meet the domestic, agricultural and pastoral requirements of village communities. They are divided into 'mahduda' and 'ghair mahduda' forests. Mahduda forests, also known as protected wastelands, were demarcated and it is prohibited to break them up for cultivation, house building or to enclose them as private property. Ghair mahduda forests do not have such restrictions.

The guzaras are managed under the Hazara Forest Act, 1936. Their management was the responsibility of the Deputy Commissioner, Hazara until 1950 when it was transferred to the Forest Department. The Guzara Rules, 1950 gave the conservator of forests of Abbottabad full responsibility for managing guzara forests.

The government admits the proprietary rights of villagers over guzara forests subject to the limitations that the government retains the rights to 1) receive a seigniorage fee of 20 percent of forest revenue for managing and developing these forests, and 2) to introduce forest conservancy measures as needed.

Section 12 of the 1936 act defines the rights of owners and government as follows:

Subject to the rights and powers of the Government in respect of seigniorage and forest conservancy as defined in this act, or in rules made thereunder, and subject also to the claims of right holders, not being owners of the soil, all wastelands (Guzaras) are property, held jointly or severally. As the case may be, of all the owners of the village in whose boundaries they are included and such landowners are entitled to use free of charge, for their own domestic and agricultural requirements, any trees and forest produce found in those wastelands. But they shall have no right or power to sell any trees or brushwood growing in such lands except with the permission of the Deputy Commissioner or other officers authorised by the Government and under such condition as the Deputy Commissioner may impose and all sales shall be subject to payment to the Government of seigniorage fees as provided by Section 27.

The claims of right holders other than the landowners of the village shall be recognised to the extent defined and recorded at settlement, or in case of doubt or dispute, to the extent which may hereafter be defined by the Deputy Commissioner with the sanction of the Local Government, and the exercise of such rights shall be subject to the provisions of this Act and the rules made there under.

All Deodar trees shall be deemed to be the property of Government and nothing in this section shall be held to affect the rights of the Government thereto.

The 1936 act clearly defines how the guzaras should be managed and defines the powers of the forest department as holding the right to:

- demarcate and protect any part of the guzaras against erosion and degradation by prohibiting the practising of any right given to villagers in that part of the forest;
- assess whether or not the supply of grasses, shrubs and trees is adequate for villagers' basic needs and if it is not to set apart, by its own decision or at the request of the owners, a considerable part of the forest to provide for these needs;
- appoint a village forest officer to manage the guzaras and to issue orders directing any such officer to improve the management and conservation of the guzara;
- punish any offender with imprisonment of up to six months or a fine of up to five hundred rupees (female offenders can authorise any person to appear before the government for inquiry on their behalf); and
- recover the cost of management of guzaras from all right-holders and landowners from land revenue.

Reserved forests

Local people have no rights in reserved forests. The rights of passage, water, and grazing are only allowed as concessions by the government. The responsibility for management rests with provincial forest departments as per Section 3 of the Hazara Forest Act, 1936. Section 4 states that reserved forests are government property:

Subject only to the rights defined and recorded at the time of settlement and to the payment to the village land owners of seigniorage fees as provided in Section 27, the reserved forests shall be deemed to be the property of the Government and the forest income accruing from them shall be credited to Government as forest revenue.

The act specifies a punishment of imprisonment up to six months, or a fine of up to 500 rupees, or both, plus compensation for the following types of damage done to a reserved forest:

- setting fire to a reserved forest or kindling any fire or leaving any fire burning in such a way as to endanger;
- kindling, keeping or carrying any fire;
- grazing or driving cattle or permitting cattle to trespass;
- cutting, lopping, tapping, or burning any tree or brushwood or stripping off their bark or leaves from or otherwise damaging them;
- causing any damage by negligence in felling any trees or cutting or removing any forest produce;
- quarrying stone, burning lime or charcoal, or collecting or removing any forest produce;
- cultivating any land or cleaning or breaking up any land for cultivation or any other purpose;
- erecting any building or making any enclosure;
- entering a fenced enclosure;
- shooting or fishing in contravention of any government rules; and
- setting snares or traps, or poisoning water.

Forest Disputes

The documented forest history dates back to the middle of the nineteenth century at the start of British colonial rule. Little is known about the pre-colonial pattern of land ownership except that it was predominantly communal. Singh (1986) estimates that at least 80 percent of the

total natural resources of India were commonly 'owned' by those living close to them (Azhar 1993).

After colonisation the British started their land settlement process. The state extended its control to forest lands through the Indian Forest Act, 1878 and in the process nationalised a fifth of India's land area. This provoked local people because it limited their access to forest resources. No significant changes were made after independence in 1947. With the passage of time conflicts over forest use have increased with the following three main types of conflict prevalent in Hazara civil division.

Between government and local people — In many places local people have never recognised reserved forests as government property and still consider that they hold the rights over them. They do little to protect and develop these forests and so there has been considerable encroachment on guzara and reserved forests.

Between government and guzara forest owners — Although the government recognises guzara forests as private property it still holds control of them in the name of forest management. This has disgruntled owners who mostly oppose government control. They want complete control of their property to manage, protect, use, and develop.

Between owners and tenants — There is a complicated land tenure system in Hazara. The big landholdings mean that owners are not able to manage their agricultural and forest land and so they let it out to tenants. Most of these tenant families have lived on these lands for centuries and believe they have rights over them. State law says that owners can only evict tenants after following lengthy legal procedures. Tenants demand a substantial share of forest resources, which they consider as common property resources. The owners' refusal to accept their demands has led to tenants violating the law to meet their needs for fuelwood, timber, and fodder from these forests.

Forest Policies and Laws

National forest policies

The forest resources of the Hilkot watershed are managed and controlled under national forest policies. The Government of Pakistan enacted forest policies in 1955, 1962, 1975, 1991, and 2001. The 1955 and 1962 policies emphasised the management of public forests and were particularly concerned with expanding the forested area to generate revenue and maximise yields. Environmental and social issues were not considered. These policies took a top-down approach and reinforced the notion that communities had no role in forest management and no stake in preserving public forests.

The 1975 forest policy was formulated in response to the widespread loss of forest resources after the separation of East Pakistan in 1971. The policy drafting committee included representatives from government and non-government institutions. This was the first people-friendly policy enacted in the forestry sector. It recognised that the management of guzara forests should be entrusted to the owners with the state taking on only supervisory responsibilities. The policy recommended the formation of owners' cooperatives societies, but stated that harvesting should be carried out entirely by public sector corporations.

The 1975 policy soon fell prey to political expediency. The government that had formulated the policy was removed in a coup in 1977 and the new government, which had not wish to

continue with its predecessor's initiatives, started to reconsider the policies for managing natural resources. From 1977 to 1988, forestry was considered a subsidiary part of agriculture, and forest policies were enacted as an appendage to agricultural policies.

The 1991 policy represented a turning point. It was influenced by donor agencies and Pakistani NGOs involved in implementing forestry programmes at the grassroots level. The most significant contribution of these grassroots programmes has been to demonstrate the participatory approach to forest management. The 1991 policy recognised the importance of participatory forest management and placed greater emphasis on social forestry and biodiversity conservation. But, due to political instability this policy remained confined to the files and shelves of government offices and hardly any implementation was carried out.

Recent debates about governance, poverty, and environmental sustainability have emphasised a rights-based approach in which equitable development is strongly associated with individual and communal rights. The draft National Forest Policy, 2001 has the improvement of livelihoods as its fundamental goal. It calls for involving local communities in implementing projects, managing forests, and implementing joint forest management.

NWFP forest policy

Although policy formulation is mainly the responsibility of the federal government; due to its rich forest resources, diverse ecosystem, and unique cultural and socioeconomic conditions, the government of the North-West Frontier Province promulgated its own forest policy in 1999. This focuses on meeting the domestic needs of local communities, increasing income opportunities, conserving and developing natural resources, rehabilitating rangelands, and generally improving the environment. The policy is based on the principles of integrated resource management, people's participation, the promotion of the private sector, equity, public awareness, incentives and cross-sectoral linkages. It also calls for updating forest legislation and the institutional transformation of the forestry sector.

Forest legislation

The Forest Act, 1927 is the prime forestry legislation in Pakistan. It was promulgated to support the forest service to conserve and protect public forests from human and animal damage. This has led to the forest service almost exclusively relying on the force of law to achieve its main policy objective of forest conservation.

The forest legislation is regulatory and punitive. Section 75, Chapter 11 allows the government to invest any forest officer with the power to (a) enter upon any land and to survey, demarcate and map it, (b) to compel the attendance of accused persons and witnesses and the production of documents and material objects before a civil court, (c) to issue search warrants, (d) to hold an inquiry into forest offences, and (e) to try forest offence cases and to issue punishments. Section 82 makes every person living nearby forests responsible to help in controlling forest fires and preventing forest offences. Chapter 6 details penalties of up to six months imprisonment and fines up to 500 rupees, or both. Also, the government may confiscate any property (tools, boats, carts, and cattle) suspected of being used to commit a forest crime.

Most forests in Hazara civil division are privately-owned guzara forests. The Hazara Forest Act, 1936 details local communities' rights and the rights concerning management and control of

forest resources in this area. The penalties and procedures are the same as specified in the Forest Act, 1927.

Implementation of forest laws

The enforcement of forestry legislation has not been effective. Local people cite corruption practised by forest officials as the main reason for non-implementation. Forest officials argue that their areas are too large to oversee and to prevent encroachment and the theft of forest products. Also, they claim it is difficult to detect forest crimes. The law relies on forest officers and local people detecting crimes, but the lack of cooperation and understanding between these two groups makes this impracticable.

Khattak (1994) makes the important point that the legislation says nothing about the obligations of the government and provides no mechanism to remedy forest depletion caused by government neglect. He also points out that the punishments for contravening the act have remained unchanged since 1865 while the profitability of illicit trade in timber has increased 500 times. The difficulty of proving an offender's guilt in court and the small punishments means that the law provides little deterrent.

Ashraf (1992) says that the effectiveness of forest laws is further undermined by two factors. Firstly, the judiciary and other law enforcing agencies hold matters relating to forest law in low esteem. They give a low priority to forest cases and often keep them pending for ages. Secondly, the misuse of their powers by some forest personnel invites public contempt of the law and instigates them to violate the law in protest.

Institutional set-up of forest department

The chief conservator of forests heads the Provincial Forest Department. There are several management circles in a province each headed by a conservator of forest. One circle comprises several forest divisions. The forest division is the basic unit for forest management and they are each divided into forest ranges.

Hilkot watershed's guzara and reserved forests are within Battal Forest Range which is headed by a range forest officer. He is supervised by the divisional forest officer of Siran Forest Division. The lowest tier in the hierarchy is the forest guard deputed to protect forest ranges. There are only two forest guards to protect Hilkot's large area of guzara and reserved forests.

Forest Cooperative Societies

Introduction and abolition

The guzara forests cover 1.39 million ha in Hazara Civil Division. They are owned by local landowners with management responsibilities resting with the forest department. Until 1950 the management of these forests lay with the district administration. The government of NWFP's Guzara Rules, 1950 transferred their management to the forest department.

The guzara owners became disgruntled with the managerial control of the forest department. They claimed that it was failing to protect the forests from the incursions of migratory graziers and from the mounting demands for forest products from the growing human population. They made several petitions to the government after which the Agricultural Inquiry Committee recommended that the management of these forests be transferred to the owners organised

into cooperatives. Accordingly an experiment in the shape of the cooperative management of guzara forests was launched in 1981 under the Cooperative Act, 1925.

A total of 33 cooperative societies were formed in Hazara division to manage its guzara forests, with two formed in Hilkot watershed. These societies were made up of representatives of the owners and the forest department. They took over the management of the guzara forests in 1981. However, they carried out extensive commercial harvesting of the forests without considering the ecological consequences. This led to heavy losses during the floods of 1992, after which the prime minister abolished these societies.

Problems and challenges

The following factors led to the failure of the cooperatives system of forest management.

Departmental resistance — Most forest officers opposed the experiment. However, rather than addressing these objections the forest secretary took the whole process directly into his hands. This led to strained relationships between the forest department and cooperatives.

Hasty management transfer — The experiment was intended to start with trials in its first six years. However, by 1983, only three years after its introduction, 18 forest cooperative societies had been registered. The process was never allowed to evolve and the concepts were not tested and adapted before larger scale application. Furthermore, full management authority was entrusted to cooperatives before they were ready to handle these responsibilities.

Politicisation — The substantial influence of forest contractors and owners on provincial politics meant that it was very difficult for the provincial government to gain control.

Legal apparatus — The basic premises of the Cooperative Act 1925 were inappropriate for the management of natural resources in the hills of Pakistan as the legislation was orientated towards providing credit for agricultural development. This was one of the main reasons for the failure of the cooperative system.

The main operational weaknesses of the experiment included:

- the lack of real participatory resource management. The cooperatives were dominated by the leading forest owners often all from a single family. There was no participation by small owners, tenants, and seasonal grazers who were deprived of access to forest resources;
- the failure to manage adjacent non-forested land was contrary to the concept of integrated resource management and resulted in the depletion of forests as no steps were taken to improve adjacent denuded slopes;
- massive irregularities in the use of funds earmarked for operations and development. The owners' shares were often misappropriated and there were frequent cases of fraud and embezzlement by cooperative office bearers;
- the widespread malpractice of the sale of standing trees, which was concealed through fictitious record keeping, allowed for the re-entry of banned forest contractors into the system; and
- defective management plans prepared by the forest department that prescribed cutting volumes far in excess of sustained yield and that failed to prescribe appropriate silvicultural systems. This accelerated forest denudation.

One of the fundamental reasons for failure was that a supposed experiment was implemented on an operational scale from the beginning without going through an experimental phase. Its failure should not be blamed on its participatory approach. The concept is a valid one provided that responsibility is clearly delegated to owners, guided by clear regulations, controlled by owners' democratic organisations and assisted in technical and organisational management and regulated by honest and efficient government agencies.

General Situation in Hilkot Watershed

This section looks at the situation of forest management and use from the point of view of Hilkot's people.

The total area of Hilkot watershed is about 1600 ha. It covers part of the catchment of the Siran river, one of the major tributaries of the river Indus which drains into the Tarbela reservoirs, a crucial source of hydropower and irrigation water. The area's climate is humid temperate and the area ranges in altitude from 1342m to 2672m. The area has a population of 7500.

The population is divided into Swatis (28%) and Gujars (72%). The Swatis live in the lower watershed areas and own most of the forest and agricultural land rights. They have a relatively good socioeconomic standing and enjoy better education, communication and health care than the Gujars.

The Gujars are mostly tenants and are economically and socially 'backwards'. They live in the upper hilly areas. Most tenant the agricultural lands from which they take a share of agricultural produce. They fulfil their fuelwood, fodder and timber needs from the forests, but don't have any share in forest revenues. Their main source of income is livestock rearing and daily labouring. They have inadequate access to education, communication, and health care facilities.

Of Hilkot watershed's area 44% is forested with about half being guzara forest and half reserved forest. Blue pine (*Pinus wallichiana*) is the dominant species. On ridges it is mixed with deodar (*Cedrus deodara*) and fir (*Abies pindrow*). The total volume of wood in guzara forests is about 118,000m³ and in reserved forests 112,000m³ (Cheema et al. 2000). Table 14.1 gives estimated figures for the amount of timber in the watershed's forests.

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Survey Findings

Access to forest resources

A sample survey was carried out to investigate local people's access to forest resources in the Hilkot watershed. It found that over two-thirds of Hilkot households had access to forest resources with 72% of households having access to guzara forest and 56% to reserved forest (Table 14.2). The lesser access to reserved forest is due to the greater forest department control over these forests and there distance from settlements.

Just over half of Hilkot households were found to fulfil their demands for timber, fuelwood, grass, and leaf-litter from local guzara and reserved forests (Table 14.3). Legally only forest owners are entitled to get timber from guzara forests and then only with written permission from the forest department. The forest department issues permits to owners to fell a maximum of four trees for building their houses and other local uses, but not for commercial sale. This

Table 14.1: Volume of wood in Hilkot watershed's forests

Forest	Forest area (ha)	Species	Volume (m ³)		
			Timber	Small wood	Total
Reserved forests	332	Kail	69,838	3,020	72,858
		Deodar	30,639	8,456	39,095
		Sub-total	100,477	11,476	111,953
Guzara forests	378	Kail	45,673	8,190	53,863
		Deodar	11,583	4,669	16,252
		Fir	47,555	975	48,530
		Sub-total	104,811	13,834	118,645
Total	710		205,288	25,310	230,598

right is often misused by locals cutting more trees than permitted and selling them on. In the survey no forest owner admitted that they took timber from reserved forests. Most owners bought fuelwood as they do not have time to collect it from their forests. Also they consider it beneath their social status to collect fuelwood.

Table 14.2: Access to forests, Hilkot watershed

Category	Guzara forest (per cent)	Reserved forest (per cent)
Access	72	56
No access	28	44
Total	100	100

Table 14.3: Local people harvesting forest products, Hilkot watershed

Category	Guzara (per cent)	Reserved (per cent)
Timber	59	50
Fuelwood	55	56
Non-timber forest products	50	44

Table 14.4: Local people buying forest products, Hilkot watershed

Category	Percentage buying
Timber	28
Fuelwood	34
Grass	15

Although tenants have no rights in guzara and reserved forests they said that they got timber, fuelwood, litter, medicinal plants and grass from them. Timber is collected as needed, whilst fuelwood is collected throughout the year and grass in August and September. They pay nothing to the owners or forest department, but when they are caught by forest guards they have to pay a fine usually of between Pakistani rupee 500-1000 (US\$ 9-18). However, these fines are often taken without following the proper procedures.

Although there is no strict prevention of access to forests, some marginalised groups — mostly tenants and other non-owners — purchase timber, fuelwood and dry grass (Table 14.4). The survey found that 28% of respondents purchased timber, 34% purchased fuelwood, and 15% dry grass. The price of timber was PR 300/ft³ for deodar wood, PR 200/ft³ for kail, and PR 100/ft³ for chir pine. For fuelwood the average price was PR 100 per 50 kg, and for dry grass PR 10-20 per 20 kg load.

In the lower forest-owner communities, women tend not to be involved in activities outside their households. In the upper tenant communities women are equally involved in collecting fuelwood, grass, and other non-timber forest products. They often spend 3-4 hours each day collecting grass and fuelwood from the forests.

Hilkot watershed is rich in medicinal plants with guchi, mameh, rathan jot and banafsha the most common species. Almost all local people know about these plants. Half of the survey respondents — mostly tenants and poor people — were found to collect them and 20% sold them locally (Table 14.5). About 30 percent of people use them to treat ailments such as colds, cough, fever, and stomach aches.

Table 14.5: Local people collecting and using medicinal plants, Hilkot watershed

Category	Percentage
Collection	50
Marketing	20
Use in local medicine	30

Grazing is viewed as one of the main causes of forest degradation in the Hindu Kush-Himalayas. In Hilkot the majority of people (68%) graze their animals in guzara and reserved forest without any restrictions. Almost all people from the upper communities graze their animals in the forests as livestock rearing is a main source of income and they don't have sufficient forage for stall feeding. Few lower community people keep animals.

The survey asked local people whether they thought grazing harmed the forests. Two-thirds replied that it was not harmful and a third that it did harm. These answers seem to reflect the desire of the two-thirds who graze their livestock in the forests to continue this practice.

Perceptions about forest management

Only 34% of respondents were aware of the forest department's work to plant Hilkot watershed's wastelands with trees in the 1980s. This reflects the poor involvement of local people in this initiative. The traditional top-down approach of the forest department gives little scope for the participation of local people in planning, managing and protecting local forest resources.

About 56% of respondents said that they were willing to participate in forest department activities such as afforestation and forest protection even under the present system of forest management. Undoubtedly more people than this would be willing to participate if incentives were provided for local people to get involved in managing reserved and guzara forests.

Almost all respondents felt that the condition of the area's forests had rapidly declined over the last ten years since the banning of the commercial harvesting of trees. Most of them cited illicit cutting and the corruption of forest officials whilst others pointed to population increases and the lack of alternate job opportunities as the major reasons for forest decline.

Overall most respondents were unsatisfied with the present system of forest management. They consider it to have completely failed to protect the forests and fulfil local needs. It is particularly the owners who oppose the system that has excluded them from managing and controlling their property.

Conclusions and Suggestions

Conclusions

This study found that the present forest management system has failed to safeguard the interest of locals and conserve forest resources. The gap between resource owners and managers has widened since the abolition of cooperative societies. In spite of it being illegal, local people continue to fulfil their needs for timber and fuelwood from these forests. As such they contribute nothing to developing and protecting the forests. On the other hand forest department officials seem to be little concerned about forest decline. According to local people they only seek their vested interests and are involved in illegal cutting.

The growing conflicts between the government and owners and between owners and tenants have led to much forest destruction. Tenurial uncertainties and inequalities are a major cause of forest depletion. The owners consider it unbearable that they are being deprived of the rights vested them in law. Tenants consider it inequitable for landlords to claim major benefits from forests even when they do not live in the area.

Current forest policy and legislation has failed to conserve forests and promote sustainable development. The resource is rapidly declining and the socioeconomic conditions of the owners and users are deteriorating day-by-day. There is an urgent need to change forest policies, legislation, and the institutional set up of the forest department.

Suggestions

The following suggestions are made for the sustainable development of the forest resources and the livelihoods of the people in Hilkot watershed.

- Decentralise and democratise forestry through organisational, legal, and political reforms to develop sustainable partnerships between stakeholders.
- Replace the current system of forest management with a participatory management system to improve the rural livelihood and manage the resource in a sustainable way.
- Promote close collaboration between government institutions, NGOs, and local communities.
- Gradually handover the management of guzara forests to owners with the forest department assuming a supervisory and technical role. At the same time allocate some share in revenues to tenants residing in forest areas with agreement from all stakeholders.
- Make owners and tenants responsible in law for protecting and reforesting their forests. Rule violators should be punished and their shares in the revenue suspended in agreement between stakeholders.
- Allow all owners and tenants residing near guzara forests to get timber and fuelwood from these forests for their domestic needs under an appropriate system devised by stakeholders.
- The government should give temporary ownership rights of reserved forests to people without rights in guzara forests. It should maintain strict control over these areas at first, but once stakeholders have proved their good intentions and abilities these rights should be legalised with forest departments playing a supervisory role.
- The forest department should encourage the participation of local people to protect and afforest reserved forest by providing them with incentives such as allowing them to harvest timber and fuelwood for their subsistence needs.

References

- Ahmed, J.; Mahmood, F. (1998) *Changing Perspectives on Forest Policy. Policy that Works for Forests and People: Pakistan Country Study*. Islamabad: IUCN
- Ashraf, M. (1992) 'Forest Policy, Tenure and Legislation.' *Background Paper for Forestry Sector Master Plan*. Islamabad: Government of Pakistan
- Azhar, R. A. (1993) 'Commons, Regulations, and Rent-seeking Behaviour: The Dilemma of Pakistan's Guzara Forests.' *Economic Development and Cultural Change* 42(19): 115-129
- Broomley, D.W.; Cernea, M. (1989) *The Management of Common Property Resources: Some Conceptual and Operational Fallacies*. Washington, D.C.: The World Bank
- Cheema, M.A.; Shah, H. Irfanullah, S. (2000) *A Report on Forest Inventory in Hilkot Watershed Area for Management and Planning Activities*. Peshawar: PARDYP and Pakistan Forest Institute
- FAO (1995) *State of the World's Forests*. Rome: Food and Agriculture Organization, www.fao.org/docre/003/yo900e/y0900.htm
- Government of Pakistan (1927) *The Forest Act, 1927*. Government of Pakistan
- Government of Pakistan (1936) *The N.W.F.P. Hazara Forest Act, 1936*. Government of Pakistan
- Government of Pakistan (1992) *Forestry Sector Master Plan (FSMP)*. Islamabad, Pakistan
- Government of Pakistan (2001) *National Forest Policy 2001*. Islamabad, Pakistan: Ministry of Environment, Local Government and Rural Development
- Government of Pakistan (2002) *Economic Survey of Pakistan*. Islamabad, Pakistan: Ministry of Finance, Islamabad
- Hassan, L. (2001) *Analyzing Institutional Setup of Forest Management in Pakistan*. Research Report No. 182. Islamabad: Pakistan Institute of Development Economics
- Jan, A. (1992) *Review and Analysis of Forest Policies of Pakistan*. Islamabad: GOP-USAID Forestry Planning and Development Project
- Khattak, G.M. (1994) *Strategy for Sustainable Development of Forestry in N.W.F.P.* Peshawar: IUCN
- Poffenberger, M. (2000) *Communities and Forest Management in South Asia. A Regional Profile of the Working Group on Community Involvement in Forest Management*. Switzerland: IUCN
- Runge, C.F. (1984) 'Strategic Independence in the Model of Property Rights.' *American Journal of Agricultural Economics*, 66: 803-813
- Singh, C. (1986) *Common Property and Common Poverty: India's Forests, Forest Dwellers and the Law*. Delhi: Oxford University Press
- Siran Forest Division (1966) *Working Plan for the Siran Guzara Forests, Siran Forest Division, (1966 to 1976)*. Peshawar: N.W.F.P. Forest Department
- Sulehri, A.Q. (2002) *Regional Study on Forest Policy and Institutional Reforms; Final Report of the Pakistan Case Study*. Manila: Asian Development Bank