

LOCAL COMMUNITIES' ACCESS TO FOREST RESOURCES OF HILKOT WATERSHED, MANSEHRA (PAKISTAN)

Anwar Ali¹ and Hakim Shah²

Abstract

This study analyzes the local communities' access to forest resources of Hilkot watershed, a small area of 1600 ha with a total population of 7500, located in Mansehra district of N.W.F.P. The total forest area is 710 ha (44% of the total area) which consists of Guzara and Reserved forests. Guzara forests comprising 378 ha, are private forests held individually or jointly by the local people and managed by the forest department. Reserved forests comprising 332 ha are owned and managed by the Forest department. The deeply dissected land tenure system and the ongoing conflicts between the government and forest users have led to the drastic degradation of the resources. Though forest legislation limits the rights of local people in the forests but still majority (72%) of them have access to forest resources in the area. They fulfill all their requirements from these forests but contribute nothing to the protection and development of the forest resources. The existing forest legislation and forest management have totally failed to achieve their objectives. It is feared that if nothing is done to check this process, these forests will soon disappear. The study suggests the introduction of participatory forest management system for sustainable development of the resource and improvement of the rural livelihood of the area.

Introduction

Pakistan is a forest deficit country. The total area of Pakistan is 87.98 million hectares and out of which 4.27 million ha comprise the forest area. The country is inhabited by 145.96 million people (2002). Thus the total forest cover (4.8%) is very low compared with other countries of the region; Malaysia (65.5 %), Sri Lanka (42.4%), India (23.7%), China (17.7%) and Bangladesh (15.3%). The per capita forest area is merely 0.03 hectare compared with world average of one hectare (FSMP 1992, FAO 1995). The primary reason for meagre forest area is that most of land area (70-80%) of Pakistan falls in arid or semi-arid zones where precipitation is too low to support tree growth. Though the forest resource is meagre, it plays an important role in Pakistan economy by protecting the upland watersheds, employing half a million people, providing 3.5 million cubic feet of wood and one third of nation's energy needs (Anon, 2002). Most of the country forests are located in northern parts (40 percent in North West Frontier Province and 15.7 percent in Northern Areas). The forests of N.W.F.P are distributed over the Himalayas in Hazara Division and Hindukush in Malakand Division (Ahmed and Mahmood, 1998; Poffenberger, 2002; Sulehri 2002).

¹ Social Forester, PARDYP Project, PFI

² Forest Economist/Country Coordinator, PARDYP Project, PFI

Hilkot watershed, located in Mansehra district (Hazara division of N.W.F.P), is a small area of 1600 hectare (ha) with a total population of 7500 (Khan and Shah, 1999). Though according to records 44% of the area (710 ha) of this watershed is classified as forest but virtually these forests have been cut, and now land is cultivated for growing crops or used as rangelands. It is cold temperate area where snow fall occurs in winter and the temperature often falls below 0° C. Fuelwood is the main source of heat energy in the area with annual consumption of 8.16 tonnes per household which exerts tremendous pressure on the natural forests of this area (Khan *et al.*, 2000).

Hilkot watershed is a mosaic of ethnic, socio-economic as well as biotic diversities where forests are held under a variety of ownership arrangements. These are broadly classified into Guzara (private) and State forests. In Hilkot watershed forests are managed according to the "Hazara Forest Act 1936", which emphasizes on forest protection and limiting community access to the forests. In fact little has been achieved in terms of protection, conservation and development of the forest resource under this act. The resource has been declining along with the socio-economic condition of forest owners and users.

Continuing resource degradation in the mountains has led to a growing concern and a sense of urgency in the context of seeking strategies, which can ensure sustainable management of forest resources. Nowhere is the concern more marked than in the conservation of upland forests, which contribute to communities' subsistence needs and their sustainable development.

Participatory Forest Management by involving government institutions, NGOs and local communities has emerged as an effective strategy in the Hindu kush-Himalayas to protect and manage forest resources of the region (Karki *et al.*, 1995). The present study was aimed at analyzing the current status of community access to forest resources in Hilkot watershed. The objectives of the study were: i) to assess the current status of community access to forest resources with respect to gender, ethnical, social and political strata, ii) to find out flaws and deficiencies in the existing system of forest management in the area, iii) to assess the institutional capacity for decision making, planning and policy implementation and its response to field issues, and iv) to develop options and approaches for equitable access to the forest resources to ensure better livelihood of the local communities and sustainable development of the resources.

Materials and Methods

Two types of data were used, i.e. primary data and secondary data. Primary data were collected through PRA tools, viz. a semi structured questionnaire. For this purpose a survey was conducted in all 12 villages of Hilkot watershed. Before actual data collection, a preliminary survey of the study area was undertaken. During this survey the already prepared questionnaire was tested and where required some changes were made accordingly. During this preliminary survey a list of all household of all the villages was prepared. Individual sample households were selected by random sampling procedure. There were 900 households in Hilkot watershed. Out of these, 180 respondents were interviewed including 90 male and 90 female. Thus the sampling intensity was 20%. After collection, the data were put in the computer and analyzed with the help of Microsoft Excel software.

Results and discussion

Ownership structure of forests

The tree species-wise growing stock of Hilkot forests is as under:

Table 1. Wood Volume of Hilkot forests

Forest Category	Area (ha)	Species	Present volume (m ³)		
			Timber	Small wood	Total
Reserved forest	332	Kail	69838	3020	72858
		Deodar	30639	8456	39095
		Total	100477	11476	111953
Guzara forest	378	Kail	45673	8190	53863
		Deodar	11583	4669	16252
		Fir	47555	975	48530
Total	710		104811	13834	118645

Source: Inventory of forest resources of Hilkot by Cheema *et al.*, 2000

The forests in Hilkot watershed are held under a variety of ownership. There are two main categories of land tenancy in Hilkot, i.e. owners and tenants. Owners mostly belong to two ethnic groups, viz Swati and Syed, and constitute about 30 percent of the total population of the area. They live in the lower watershed communities namely, Hilkot, Kandi, Syedabad and Malkan. They are the owners of agricultural and forest land. They have received their

ownership rights from their fore fathers and are recognized by the law of the land. They are in better socioeconomic conditions due to their income from agricultural and forest land.

Tenants mostly belong to ethnic group of Gujars. They constitute about 70 percent of the total population of Hilkot watershed. They live in the upper hilly areas. Majority of them are tenants on the agricultural and forest lands. They cultivate the owners' lands and take a considerable portion of the agricultural produce from these lands. They also fulfil their fuelwood, fodder and timber requirements from the forests, but they do not have any share in the revenue from the forests. Their main source of income is livestock rearing and daily labour work in the area.

Community access to forest resources

Access generally means in this context, the ability to benefit from the resources whether authorized or unauthorized. Despite very dissected land tenure system, the conflicts between owners and tenants and existence of authoritative forest legislation, majority of local population have access to forest resources in Hilkot watershed. A large majority of 72 percent respondents have access to Guzara forest and 56 percent have access to reserved forest. Less access to reserved forest is due to departmental control and longer distance of the forest from the habitations.

Table 2. Access of local communities to different categories of forests at Hilkot

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

Collection of forest products

Majority of the Hilkot residents fulfill their demands of timber, fuel wood, grass and leaf-litter from both Guzara and reserved forests of the area. Legally only owners are entitled to get timber from Guzara forests with due written permission from the forest department. Forest department issues permits to the owners, of four trees (maximum) for home construction or other genuine reasons, but not for commercial felling. This right is often misused. They cut more trees than that provided in the permit and sell these through black

marketing. However, none of the owner indicated that they had ever got timber from reserved forests. This is due to the fact that locals do not have any timber right in the reserved forests. Majority of owners (83%) purchase fuel wood because they do not have time or labour to collect fuelwood from the forest. Secondly they consider it against their social status to collect fuelwood from the forests.

Though tenants have no rights in Guzara or Reserved forests but interestingly they get timber, fuelwood, litter, medicinal plants and grass both from guzara and reserved forests illegally as there is no effective forest security system in the area. Timber is collected only when needed, fuelwood is collected throughout the year and grass is collected in the months of August and September. Usually they pay nothing to the owners or Forest Department, but whenever caught, they are fined by the Forest Officials according to the level of offence.

Table 3. Collection of forest products from different categories of forests at Hilkot.

Category	Guzara (Percent)	Reserved (Percent)
Timber	59	50
Fuel wood	55	56
NTFPs	50	44

Purchase of forest products

Though there are no strict restrictions on access to forests but still there are some marginalized groups, mostly tenants and other non-owners who purchase timber, fuelwood and dry grass. In the survey 28 percent respondents told that they purchased timber, 34 percent fuelwood and 15 percent purchased dry grass. The price of timber is Rs.300 per cubic foot (cft) for deodar, Rs. 200 per cft for kail and Rs.100 per cft for chirpine. In case of fuel wood the average price is Rs.100 per 50 kg, while the price of dry grass varies between Rs. 10-20 per 20 kg.

Women involvement in the collection of forest products

In the Swati and Syed communities, who are owners, women are not involved in any activity outside the households, but the tenants women are equally involved in the collection of fuelwood, grass, and other NTFPs. According to the survey women collect fuelwood and fodder in 61% of the sampled households. On an average they collect about 30 kg fuelwood and 50

kg green fodder per day both from reserved and guzara forests of the area. They spend 3-4 hours daily in grass and fuelwood collection from the forests.

NTFPs (Medicinal plants)

Hilkot watershed is rich in medicinal plants. Guchi (Wild mushroom), mamekh (*Paeonia emodi*), rathan jot (*Geranium wallichianum*) and banafsha (*Viola serpanse*) are the common medicinal plants reported by majority of the respondents. Almost all residents of the area have perception about medicinal plants, but only 50 percent are involved in the collection; mostly tenants and poor people. 20 percent of the respondents are involved in the marketing of medicinal plants. These people regularly collect medicinal plants every year and sell these in the local market. About 30 percent people use medicinal plants in local medicines mostly for treatments of cold, cough, fever and stomach pain.

Grazing in the forest

Grazing is often cited as one of the main factors of forest degradation in the mountains of Hindukush Himalayas. According to the current survey 68% of the sampled respondents graze their animals in both Guzara and Reserved forest of Hilkot watershed. Besides rangelands they graze their animals in all parts of the forest and there is no restriction on them. Almost all people of upper communities graze their animals in the forests because livestock rearing is the main source of income for them and they do not have sufficient forage for stall-feeding. In lower communities people mostly do not keep animals and thus no grazing was reported here.

Perception about activities of forest department

Though forest department had carried out some plantations in the catchment areas of Hilkot watershed, but only 34 percent of the participants are aware about their work. This shows the poor involvement of the local people in the management of forest resources. The traditional top-down approach of forest department has little scope for the participation of local people in the planning; management and protection of forest resources in the area.

About 56 percent of the respondents are willing to participate in the activities of forest department even under the present system of forest management. They are ready to participate in reforestation and protection of forests in their area. Surely this percentage can be increased by providing incentives to the local people and involving them in the management of both reserved and guzara forests.

Degradation of forest resources

Almost all respondents are of the opinion that forests have been rapidly declining in the last ten years, the period during which ban was imposed on the commercial harvesting of trees. Majority of them cite illicit cutting and corruption of forest officials as the main reason behind this. Some people describe population increase and some other point out lack of alternate job opportunities as the main reasons for forest degradation. It was also observed that clearance of land for agriculture is also a serious threat to forests in the area.

Forest management system

Currently there is only nominal forest management in the area. Though ban is imposed on felling of trees for commercial purposes, but illegal cutting of trees is going on unchecked in the area. Mostly local people and some outsiders are involved in this practice. Only one forest guard is deployed for the protection of the whole Guzara forests in the area. Nothing is done in terms of afforestation and development of forests. This situation has led to the continuous decline in forest cover. Majority of the local people are annoyed with present system of forest management. They consider the present system as complete failure due to its ineffectiveness in protection of the forests and fulfilling the requirements of the locals in a fair way. Particularly the owners are against this system, which has excluded them from the management and control of their property. Though recently some changes have been brought in forest policy, forest legislation and forest management system but about 90% of the respondents are unaware about these changes.

Conclusions

From this study it can be concluded that the present forest management system seems to have failed in safeguarding the interest of the local people and conservation of the resources in Hilkot watershed. Local people fulfill their demands of timber and fuel wood from these forests without any serious restriction, in illegal way. They contribute nothing to the development and protection of the forests in term of reforestation and security of the forests. On the other hand officials of forest department are least concerned about the decline of forests. Malpracticing has encouraged illegal trade and black marketing of timber in the area. The growing conflicts between the government and owners as well as between the owners and tenants, have led the forests to heavy destruction. Tenurial uncertainties and inequalities were major causes of forest depletion. Current forest policy and legislation have failed to achieve their

objectives of forests conservation and sustainable development in the survey area.

Recommendations

For sustainable development of the forest resources and improvement of the rural livelihood of Hilkot watershed, the following suggestions and recommendations are made.

- The current system of forest management should be immediately replaced with a participatory forest management system in order to improve the rural livelihood and manage the forest resource on sustainable basis.
- The management of Guzara forests should be gradually handed over to the owners and tenants, while the forest department should assume the supervisory and technical role. A proper share should be allocated in the forest yield and revenue for the tenants residing in and around these forests. This may be done through mutual consensus of the stakeholders.
- The owners and tenants should be made responsible through legislation for the protection and reforestation of their forests.
- All the owners and tenants residing in the vicinity of Guzara forests should be allowed to get timber and fuelwood for their domestic requirements. But this should be under a proper system evolved by jointly the stakeholders and forest department.
- In case of reserved forest, the government should give propriory rights to those who do not have rights in the Guzara forests temporarily, keeping a strict control in the beginning. After the capacity building of the stakeholders and stability of the institutions their rights should be legalized and forest department may assume supervisory role.

References

Ahmed, J. and F. Mahmood, 1998. Changing perspectives on forest policy: policy that works for forest and people: Pakistan country study. IUCN Islamabad, Pakistan.

Anonymous, 1936. The N.W.F.P. Hazara Forest Act. Government of Pakistan.

Anonymous, 1992. Forestry Sector Master Plan (FSMP). Government of Pakistan, Islamabad, Pakistan.

Anonymous, 1995. State of world forests. Food and Agriculture Organization, FAO, Rome.

Anonymous, 2002. Economic Survey of Pakistan. Govt. of Pakistan, Islamabad.

Cheema, M. A., H. Shah and S. Irfanullah, 2000. A Report on forest inventory in Hilkot watershed area for management and planning activities. People and Resource Dynamics Project, Pakistan Forest Institute, Peshawar.

Karki, A. S., J. Amtzis and A. Bhatia, 1995. Building partnerships in community forestry. International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, Nepal.

Khan, A.Q., B. A. Wani, H. Shah, and S. Irfanullah, 2000. Assessment of rural energy needs in Hilkot watershed. People and Resource Dynamics Project, Pakistan Forest Institute, Peshawar.

Khan, M and H. Shah, 1999. PRA Report of Hilkot watershed. People and Resource Dynamics Project, Pakistan Forest Institute, Peshawar.

Poffenberger, M., 2002. Communities and forest management in South Asia. A regional profile of the working group on community involvement in forest management. IUCN Switzerland.

Sulehri, A.Q., 2002. Regional study on forest policy and institutional reforms; Final Report of the Pakistan Case Study. Asian Development Bank, Manila.