

SOCIAL ASPECTS OF REFORESTATION ON COMMUNAL LAND: A CASE STUDY OF TARA-GAT MOUNTAIN, LOWER SWAT

M. Nafees¹ and Zahid Ullah²

ABSTRACT

Tara-Gat Mountain situated in Lower Swat region also called Swat Ranizai was investigated for social aspects in relation to seek guidance for future reforestation activities. For survey Participatory Rural Appraisal (PRA) techniques including transit walk and semi-structured interview were used. Mountains are communal property that can be acquired as personal property by converting it in to agriculture land. The study area was reforested in 2000-2002 with the help of forest department and harvesting was banned for five years after consultation with the local people. On termination of the ban, a household located adjacent to the Tara-Gat Mountain, demarcated the newly forested area as his personal property. This created a conflict with the rest of the communal owners. Consequently the other communal owners started cutting the trees in the demarcated area. This initiated heavy deforestation that continued till the mountain was barren again. It was concluded that to avoid future loss, more in depth analysis of social context is mandatory. Further more interest of all the stakeholders must be addressed by providing corresponding legislative coverage.

Key words: Social codes of conduct, communal land, reforestation, livelihood opportunity

INTRODUCTION

Forests play a vital role in the environmental development. A country needs at least 25% of forest of the total land (Anwar. 2002). Unfortunately Pakistan has about 4.8% forest cover of its land (Shahbaz *et al.*, 2007). The literature reveals that societal role is mandatory for the conservation of available resources and creating new forested areas on degraded slopes (Johnson and Nelson (2004). On many occasions social conflicts hinders the process of forest development and accelerate the process of deforestation. The social issues related to tenure may thus negatively effect the environment at local level (Lisa and Perera 2006).

Social conflicts are inherited characteristics of almost every society. The solutions always exist within the society, which is sometime hidden and needed to be explored and resolved (Daniel, 2002). In case of delay, it adversely affects the overall contextual social relations as well as initiating hardly reversible changes to the natural resource (Easterly, 2001). On many occasions such conflict leads to political confrontation and need resolving intervention from out side. This intervention may be in the form of legislation, and support from government and non-governmental organization (Yurdi *et al.*, 2006).

To over come on deforestation forest department is in continuous efforts of

¹ Assistant Professor, Department of Environmental Sciences,
University of Peshawar

² Lecturer, Department of Environmental Sciences, Alama Iqbal Open University,
Islamabad

reforestation activities. To make reforestation efficient and effective a participatory approach has been adopted. Malakand Social Forestry Project (MSFP) and Forestry Sector Project (FSP) are good examples (Abid Q.S. 2002). In these projects plantation campaigns were initiated and completed with the help of community based organizations (CBO) or Village development committees (VDC). Instead of this in some area like Tara-Gat forest department was not successful (Geiser and Rist. 2009). Although the plantation campaign completed successfully, but what caused such a big loss in the form of clear cutting has never been analyzed in complexity. Swat Valley is rich in social values and there are many social codes of conducts like *ashar* (collective community work), *nagha* (seasonal mutually agreed ban) and *kakhay* (crop watchman selected and paid by the community twice in a year at the harvest of a crop @ 25Kg/household) that could be used as instrument to over come social conflicts, promote reforestation activities and environmental rehabilitation after proper institutionalization (Nafees et al 2009).

OBJECTIVES

In the current study an attempt has been made to find out reasons of deforestation in Tara-Gat Mountain with the objective to document this for future guidance and also identify possible solution of indigenous nature for effective reformation.

Study Area

Swat Valley is a collection of three main districts i.e. Swat, Lower Dir and Malakand. Northern part of Malakand also called Swat Ranizai composed lower Swat region (Fig.1). Swat Valley is mountainous with only 25 plain areas. In general the mountains are communal property in the Swat and Malakand districts. Each village has a landed property usually demarcated by mountains as natural boundaries (Nafees, 2008). The study area (*Tara-Gat*) is a mountain (Fig. 2) located in the territorial limits of a village Allahdand Dheri in Malakand district being part of the Swat valley (Fig-1). The total area of the village (2138 hectares) included 53.29% arable land (32.97% rain fed and 20.32% irrigated land), 34.27% mountainous and 12.43% residential area (Fig-2).

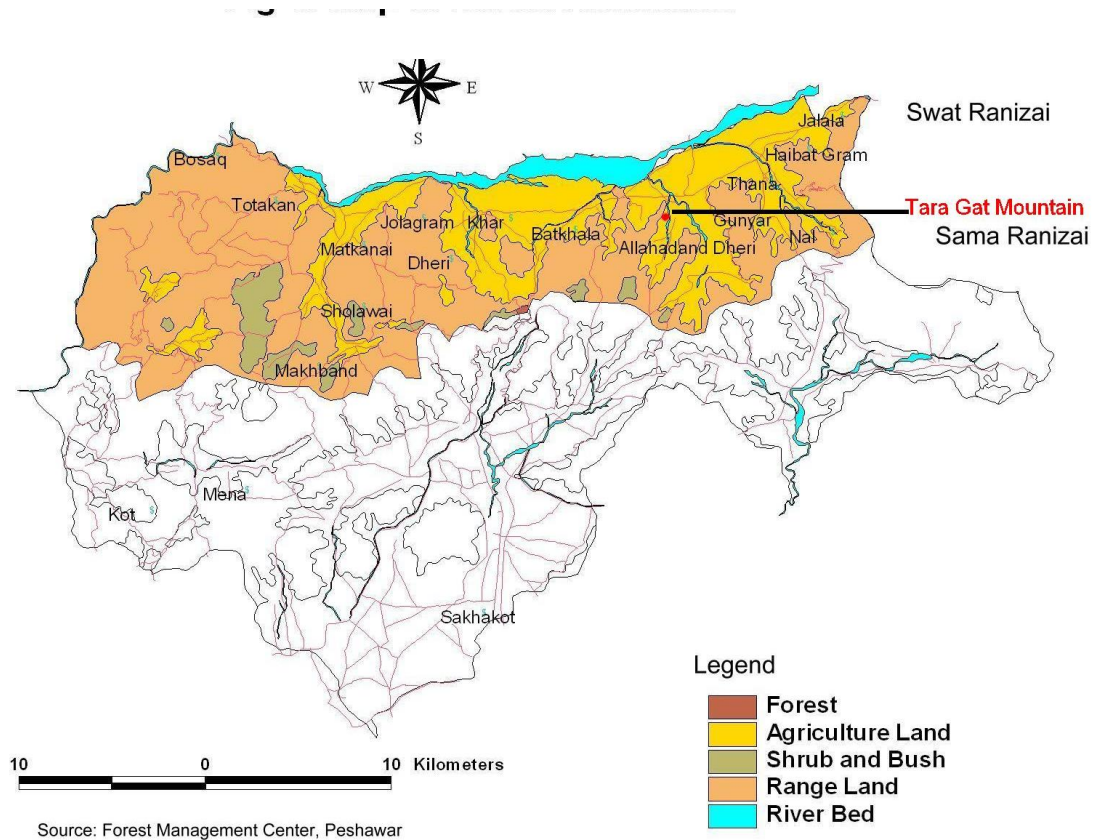


Fig.1. Map of district Malakand

METHODOLOGY

To clear the historical background of land tenure system and different deforestation events a detail literature survey was carried out which is supplemented by semi structure interviews with the official of forest departments and village elders. To know about the re-forestation activities forest department was visited and the concerned officials were interviewed. The area was surveyed during 2005-07 for the development trends in forest related activities. To know about the forest cutting PRA techniques (focus group discussion, social mapping) were used. For this two focus groups were identified. One focus group consists on 12 members, one each from family belonging to group living in the foot hill of Tara-Gat and have right to convert and claim the mountain as agriculture land.

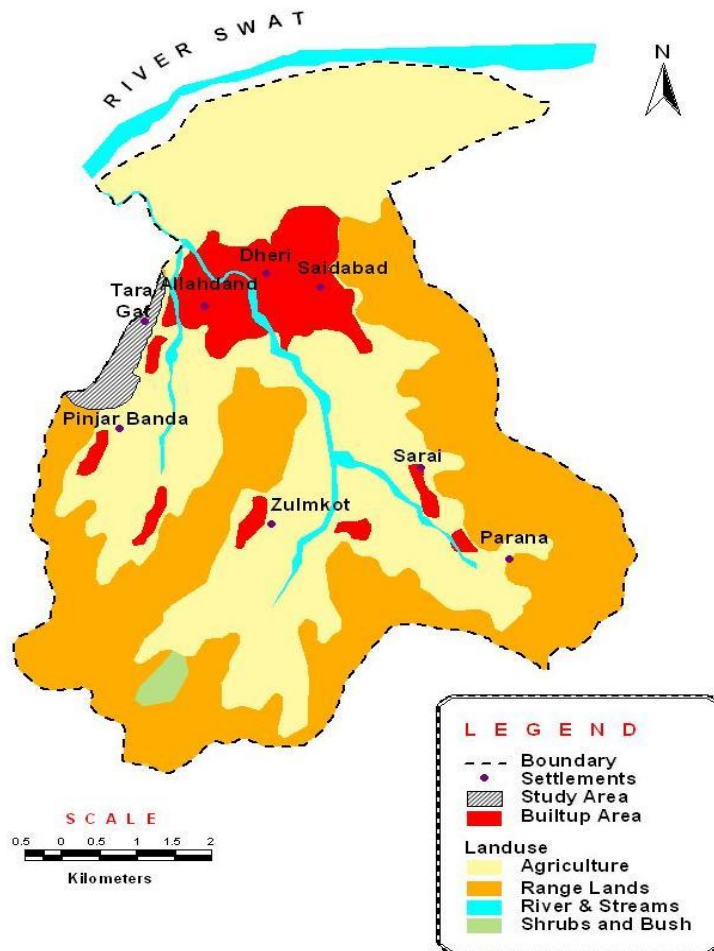


Fig. 2. Land use map of the study area

Two transect walks were conducted when the mountain was forested and two after clear cutting as per procedure adopted by Walpole and Sheldon (1999). The mountain was photograph before and after clear cutting.

Another focus groups which belong to the area and had experience in using the mountain in past was identified. This group consists of 13 members. This was analyzed to know about the previous use of the mountain as per standard procedure adopted by Omodei et al 2004 and Bayemi et al 2005. Both focus groups were identified with the help of local school teachers and mostly consist on elder qualified persons. For secondary data sources published data of Pakistan statistic department was utilized.

RESULTS AND DISCUSSION

Composition of the Village and their claim on the mountain

Tara-Gat Mountain is claimed by Village Allahadand as communal land. The lands of 12 families (three tribes) out of the total 106 landowner families belonging to 6 sub-tribes are attached to the mountain and have the right of converting it into agricultural or residential land (Nafees et al 2009). While the mountain in its present communal form belong to the Allahadand part (6 sub-tribes) of the landowner main village of Allahadand Dheri making 35% of the village population. As per focus group discussion during PRA the 7 sub-tribes of Dheri side (40%) and the land less tenant community (25%) can also claim the hillside in terms of using it for grazing, grass cutting, hunting and gathering of resin etc. In this the entire village population claim it as a community property. The 6 village ward contain about 35% of the village population are landowning families and only 12 families of these have the right to convert it into agriculture or residential land and make it their personal property. So far about 20% of the Tara-Gat Mountain and also in the surrounding areas have already been converted into agriculture land (Fig. 3). The remaining area is hard rocks and cannot be converted into agriculture land. Consequently the right holder families are trying to convert gentle part of these rocks into residential areas.

Historical Background of Deforestation in the Study area

Before the creation of Pakistan (1947) every person had the right to use the mountains for non-commercial pruning and gathering of fuel wood, grazing, grass cutting and hunting. Tree cutting was allowed by getting permission from the Khans (heads of land owning extended family). After 1947, the Malakand remained as Federally Administered Tribal Area (FATA) till 1969 (Sultan-i-Rome. 2005). In this system *jirga* (local council of elders) worked as the decision making body. In 1969 both, the adjoining northern annexed area of Swat and Dir were merged into Pakistan and the tribal status of all the areas including Malakand was changed to Provincially Administer Tribal Area (PATA), with partial extension of the colonial type of institutional framework existing in the rest of the country (Inam-ur-Rahim and Viaro 2002). With this extension the mountains in Swat and Dir were declared as Government property and the forest was called as protected forest in 1972 (Sultan-i-Rome. 2005). Consequently people of the Malakand feared that their mountain may also be declared as state property. This led to indiscriminate deforesting. Due to demolishing of tribal rules and *jirga* system the *Khans* (representative elders of a village) were no more in power and were not respected by the landless tenant (Nafees, 2008). As discussed with the people, the tenants being residing in the vicinity of the hillside were the primary users of the communal hillside containing forest. During the intuitional vacuum that followed, the tenants started illicit cutting, while the *Khans* were just powerless observers. Such cutting of communal forest continued for about three subsequent years (1975-77). This was followed by continued free grazing. The continued cutting reduces the forest cover to 5% in the study area from 30% before the initiation of illicit cutting during 1975.

Previous livelihood opportunities associated with Tara-Gat

Before 1971 in the Tara-Gat Mountain the main economic but time consuming benefits was collection of resin of *phulai or palosa* (*Acacia Modesta*) for medicinal use. Another important activity was collection of damaged trees and twigs for feed and fuel. The third was grasses which were cut and used for hay in mud houses as well as filler in fruits and vegetable and eggs packing. The fourth was using the mountain for grazing by the village livestock belonging both to land owners and landless tenants. In this a herder was appointed by villagers to take cattle of the whole village for grazing. He was paid twice a year with 5Kg grains/head of cattle. This process continued till 1980. Afterward the nearby mountains became absolutely barren due to deforestation and subsequent removal of the soil cover subsequently the herders were obliged to go to the remote areas and it became increasingly difficult for him to manage such grazing. As a result this system gradually vanished.

Present process of land conversion and associated problems

The adjacent land owner can acquire and make it as private landed property. For doing so he has to put some effort and make it able to be cropped. During 1978-82 after clearing the mountains, the adjacent landowners started to acquire the land for agriculture and houses (Fig-3). Currently 25% of the available rainfed area comprises of the converted mountain slopes. The continued tilling on these lands has negative impacts in the form of increased erosion and siltation in the irrigation system down the valley.

Reforestation movement in Tara-Gat

After large scale deforestation during 1975-1977 the mountain remained barren for about 10 years (Nafees, 2008). In 1987 forest department started Malakand social forestry program that continued till 1997 (Abid, 2002). Tara gat was also in the schedule and the project staff consulted the local people for reforestation in 1993. Malakand Social Forestry Project (MSFP) was not honoured because of three reasons. The first reason the involvement of foreign consultants due to past war history during occupation and forceful occupation of the area and cultural differences. Second was the banning of mountain for five years as both, tenants and the land owners were using the mountain for grazing. Third reason was the constitutions of community based organization (CBO) or Village development committee (VDC) as the MSFP reforestation process included volunteers to work for free to which no one was ready. The village elders were interested in job opportunities for their youth. In 2001 Forest Department initiated Forestry Sector Project (FSP) funded by Asian Development Bank. This was a five years project and continued till 2006. This local community was approached through elected member for tree plantation. This time a volunteer committee was constituted that consisted of *masharan* (village elders) and local watchmen were appointed and were paid from the project fund. A limited part (about 0.75km length) was banned for five years in consultation with *masharan*. Forest department along with the *masharan* were supervising plantation and were responsible for the look after of the new plantation (Fig-3). The violation was looked after by Malakand Leaves (local police) for five years, however that could not be continued with the excuse of limited manpower.



Fig. 3. From view of Tara-Gat Mountain after plantation (2007)

The conflict

In the time during 2001-2006 Tara-Gat Mountain was planted. The main species was Eucalyptus selected due to its rapid growth and became one with high tree cover in the locality. Although it was considered the communal property, still forest Department invested on it and allowed the local population to utilize the mountain for the grazing but disallowed tree harvesting after 2006.

This process of conservation was disputed, when a person situated adjacent to the mountain and started claiming the central part of the mountain as his personal property and tried to malice the whole campaign. He also tried to bring the plantation in his personal use. This led to social conflict and all the communal share holders stood against him and started cutting in the claimed area. However no complaint arose against tree cutting. The reason might be that the other stockholders could also see it as an opportunity for private benefit. In this way the encroacher was back to his original field boundaries but the plantation was cleared. Eventually the mountain was cleared completely on February 11 2009 and the five years efforts of the forest Dept. were gone futile.

Now in 2009 Tara-Gat Mountain depicts the picture of the old barren Tara-Gat Mountain of 1978 times (Fig. 4). Only a small social conflict directly affected the environment and forestation process.



Fig. 4. Front view of Tara-Gat Mountain after Clear Cutting (2009)

The tree cutting was communicated to the ex-watchmen by the person who annexed the mountainous area to his land but was refused with the excuse that he is no more project employ. The second option was to complain the police station. But was refused with the excuse that it is communal property and you have to bring the elders of the village for accepting the complaint. When the tree cutters came to know that police are not taking interest, they got further encouragement and accelerated the cutting. The start was taken by the landless of Allahdand side (25%) and was encouraged by non-adjacent landowners. When the adjacent land owner (10%) saw that the complete removal, they also reached to collect their share in terms of tree cutting.

CONCLUSION

Reforestation on communal land is important but very much complicated. Before going for reforestation the social aspects must be studied. Tara Gat Mountain was cleared in early seventies as a result of poor forest policy in the past. The reforestation effort of Forest Department during 2001-06 was good attempt but social aspects were not studied. Before plantation, area of social conflicts and role of the community to look after the plantations were not identified, which resulted a serious damage in the form of clear cutting in 2009. To make the future reforestation activities successful the following are some recommendation.

- The area which could be convertible in agriculture land due to terrain provisions has already been converted into cropland. That needs to be used for plantation for which the forest department is required to give proper awareness and guideline to the people with a surety that the acquired part of mountain are belonging to the local people.

- Any further acquisitions will lead toward degradation in terms of erosion and habitat loss. Therefore a strategy is required to keep the status of mountain as communal and use it for forest growth with some incentive to the adjacent landowner and highlighted benefits to non adjacent landowners as well as landless people in terms of providing livelihood opportunities. For this there is a need to use plantation as source of income by getting fuel wood in terms of trimming and tree cutting. The forest department along with elected district government have to discuss the modalities with the community elder.
- Another possible option will be to give the mountain on lease to a group of local people for growing trees and grasses. The forest department has to provide technical support. The forest department will be benefiting in terms of tax when the people export wood or wood product to other districts of the country as in practices in the southern plan area of Pakistan.
- The forest department and the community people have to make it obligatory on local police to accept and register complaint if any .
- Local people mostly rely on elected member, as they have to come back to the local people including the landless for votes. Therefore, the forest department is required to make use of the elected members in awareness and motivation and use of local social code of conduct such as arrangement of *ashar* and *kakhay* and implementing *nagha*.

REFERENCES

Adrienne, M. and J. Sherington, 1997. Participatory Research Methods-Implementation, Effectiveness and Institutional Context. *Agricultural System* 55(2):195-216.

Abid, Q. S., 2002. Regional Study on Forest policy and Institutional Reforms: The Pakistan Case Study. Asian Development Bank (ADB), publication. www.adb.org/Documents/Events/2002/RETA5900/report.pdf.

Anwar, M., 2002. Economic and Commercial Geography of Pakistan. White Rose Publication and Book Series, Lahore, p-47.

Bayemi, P. H., Bryant, M. J., Pingpoh, D., Imele, H., Mbanya, J., Tanya, V., Cavestany, D., Awoh, J., Ngoucheme, A., Sali, D., Ekoue, F., Njakoi. H. and E. C. Webb, 2005. Participatory Rural Appraisal of Dairy Farms in the North West Province of Cameroon. *Livestock Research for Rural Development*. 17(6):1-26.

Daniel, B., 2002. Cultivating Peace: Collects and Collaboration in Natural Resource Management. International Development Research Center Ottawa. Pp-4-6.

Easterly, W., 2001. Can Institutions Resolve Ethnic Conflict? *Economic Development and Cultural Change*, the University of Chicago Press, 49(4):687-706.

Geiser, U, and S. Rist, 2009. Decentralization Meets Local Complexity: Local Struggles, State Decentralization and Access to Natural Resources in South Asia and Latin America. NCCR North-South Swiss National Centre of Competence in Research North-South University of Bern Switzerland. pp-1-8.

Inam-ur-Rahim, and A. Viaro, 2002. Swat: An Afghan Society in Pakistan. Urbanization and Change in Tribal Environment. Karachi, Pakistan: City Press.

Iqbal, M., 2003. Deforestation in NWFP" The Journal of National Institute of Public Administration, Karachi, 8(3):75-101.

Johnson, K. A. and K. C. Nelson, 2004. Common Property and Conservation: The Potential for Effective Communal Forest Management within a National Park in Mexico. *Human Ecology*, 32(6):703-733.

Lisa, J. B. and A. H. Perera, 2006. Applications of Forest Landscape Ecology and the Role of Knowledge Transfer in a Public Land Management Agency. *Book on Forest Landscape Ecology*, p: 129-155.

Nafees, M., 2008. Soil Conservation in River Swat Watershed, NWFP, Pakistan. PhD Thesis, Department of Environmental Sciences, University of Peshawar, NWFP, Pakistan. PP: 134-137.

Nafees M., K. Hizbullah and M. R. Jan, 2009. Circulatory Land tenure and its Social and Ecological Impacts: A case study of the Village of Allahdand Dheri in Northern Pakistan. *Mountain Research and Development*, 29(1):1-8.

Omodei, Z. L., C. Contini, N. Jiddawi, J. Ochiewo , J. Shunula and S. Cannicci, 2004. Participatory appraisal for potential community-based mangrove management in East Africa. *Wetlands Ecology and Management* 12(2):87–102.

Shahbaz, B., T. Ali and A. Qaiyum S., 2007. A critical Analysis of Forest Policy of Pakistan: Implications for sustainable livelihoods. *Mitigation and Adaptation Strategies for Global Change* 12 (4):441-453.

Sultan-i-Rome, 2005. Forestry in the Princely State of Swat and Kalam (North-West Pakistan). A Historical Perspective on Norms and Practices. Berne, Switzerland: NCCR North–South [Swiss National Center of Competence in Research North–South]. Available at http://www.geo.unizh.ch/human/research/pdf_etc/Rome_Swat.pdf;

Walpole, M. J. and I. R. Sheldon, 1999. Sampling butterflies in tropical rainforest: an evaluation of a transect walk method. *Biological Conservation* 87(1): 85-91.

Yurdi Y., H. Schanz and A. Salim, 2006. Manifestation of conflict escalation in natural resource management. *Environmental science & policy*, 9(6):538-546.