

intervention. Perhaps the nearest surviving equivalents in the region are the 95 Indian enclaves (*chhit*) in northern Bangladesh and the 130 Bangladeshi equivalents in north-east India.³⁸ A total of some 100,000 Indian citizens are stranded in enclaves totally surrounded by Bangladeshi territory, and some of these are no larger than a few acres. The *chhits*' boundaries date back to pre-independence and indeed pre-British times: they are a consequence of the confusing and frequently overlapping boundaries between the lands of the Maharaja of Cooch Behar and the Zamindar of neighbouring Rangpur. In 1947 Cooch Behar acceded to India while Rangpur became part of East Pakistan and later Bangladesh. The Indian and Bangladeshi governments have agreed in principle to exchange enclaves, but have yet to implement the agreement.

The India/Bangladesh example demonstrates the problems associated with small landlocked enclaves, but nevertheless serves as a reminder that unexpected historical anomalies may indeed survive into the late twentieth century. Nearly half a century after partition, India and Bangladesh have yet to reach formal agreement on their common frontier.

Similarly, China has yet to reach formal agreement on Tibet's boundaries with India and Bhutan. The latter have no hope of enforcing any residual claims to sovereignty over their Tibetan enclaves, but it is conceivable that they might yet seek compensation when negotiating a final boundary settlement. In this respect it may be that the history of the enclaves is still not entirely closed.

38. For a recent journalistic discussion of the problems of the Indo-Bangladeshi enclaves see: Ruben Banerjee, 'Land-locked lives', *India Today*, 15 March, 1995, pp. 94-95. New Delhi.

RESOURCE MANAGEMENT IN ASTOR (GILGIT WAZARAT) SINCE THE PARTITION OF KASHMIR. Natural Setting, Utilization Rights and Modern Impacts on Alpine Pastures and Forests.¹

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Introduction

Mountain habitats in South Asia are undergoing rapid changes of their socio-economic conditions. The intensity of animal husbandry and transhumant economy is regarded as an indicator of processes of socio-economic transformation (Grötzbach 1980). In the region of Hindukush, Karakoram and north-west Himalaya, the growth of population and livestock are expected to reach or even overexploit the carrying capacities of alpine resources. The traditional patterns of resource management in the valleys of Astor (see map, p.107), however, have been dramatically changed after the partition of Kashmir in 1947 due to political reasons.

A simple model based on the example of the Nanga Parbat region shows the complexity of resource management (see figure, p.109). This dynamic 'system' is determined by a variety of interrelations between the different factors. In particular, this study analyses several legal and socio-economic aspects of the high mountain agriculture in Astor and its development since 1947. The conclusions contribute to the discussion about sustainability of agriculture and animal husbandry and high pasturing in particular.

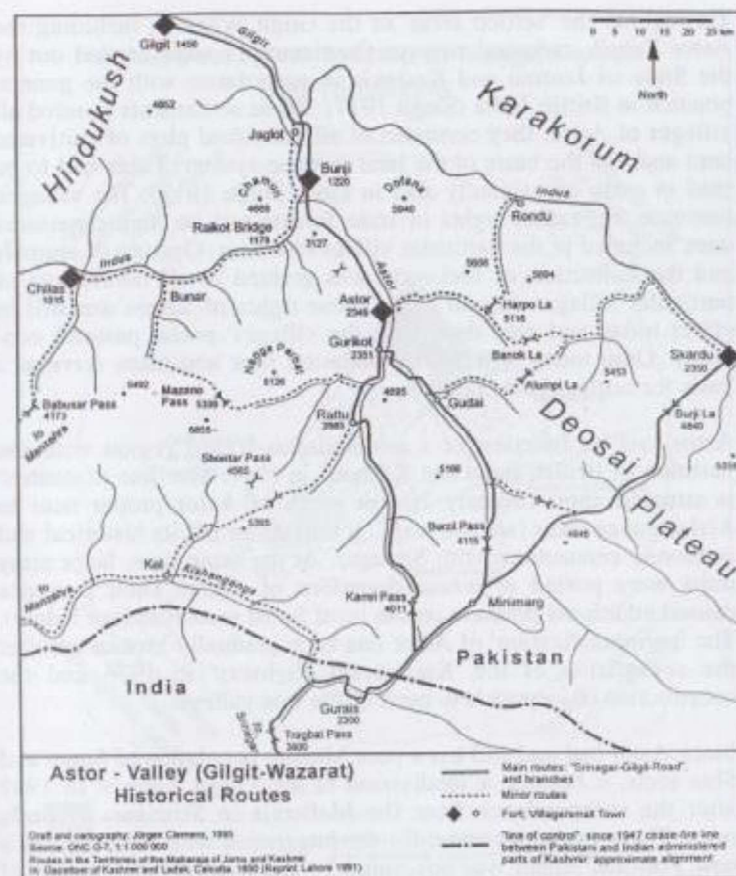
1. This paper is based on common and individual fieldwork by the author and Mr. Nüsser (Geographer, M.Sc.; Berlin). Both of them are members of the "Culture Area Karakorum" research project, funded by the "Deutsche Forschungsgemeinschaft" (German Research Council). Many thanks go to this funding agency and the project's coordinators, Prof. I. Stellrecht, Prof. E. Ehlers and Prof. M. Winger.

Astor's History and Administration in Brief

Astor was part of the 'State of Jammu and Kashmir' until 1947 as a Tahsil of the 'Gilgit Wazarat'. During this period of 'dual control' or 'dyarchy' (Lamb 1993) by the Kashmiri administration and the British 'Political Agent' in Gilgit, Astor recovered from frequent raids by the neighboring Chilas and Kohistani tribes. Particularly the northern and western parts of Astor were nearly deserted until a punitive expedition by Maharaja Gulab Singh against Chilas stopped the repeated raids in 1851 (Drew 1875).

To resettle the deserted areas, the Raja of Astor, a descendent of the 'Makpun' dynasty in Skardu (Baltistan) (Dani 1989), tried to attract migrants from Baltistan. Until today descendants of Balti migrants form significant portions of Astor's population, especially in side valleys of Kamri and Burzil. In southern parts of Kamri, also migrants from Gurais settled (Singh 1917).

After the establishment of a British Political Agent in Gilgit, the road infrastructure was improved significantly due to the region's strategic importance. In 1894, the 'Srinagar-Gilgit-Road' which linked Srinagar in the south with the military outposts in Gilgit and even further north, was upgraded into a mule track (Bamzai 1987). From Gurais to Gurikot, this road forked into two branches, via the Kamri or Burzil Pass (see the map). Prior to the construction of this mule track, local men were forced to carry the British and Kashmiri supplies on their backs. Under this system of forced labour, '*res*' or '*kar begar*', every village had to assure the transportation along a particular section of the road (Singh 1917). After the completion of this mule track and the abolition of the *kar begar* system, people in Astor started to keep ponies, mules and donkeys as pack animals in considerable numbers. The entire valley became well known for the rearing of horses (Jettmar 1989). The lending of pack animals constituted the main source of off-farm income in most villages of Astor. Some families also used to sell animals at the small market places of the region and to Kashmir (Singh 1917). Due to the limited agricultural potential (see below), Astor was dependend on external supplies of large amounts of staple food (mostly wheat) from Kashmir (Singh 1917).

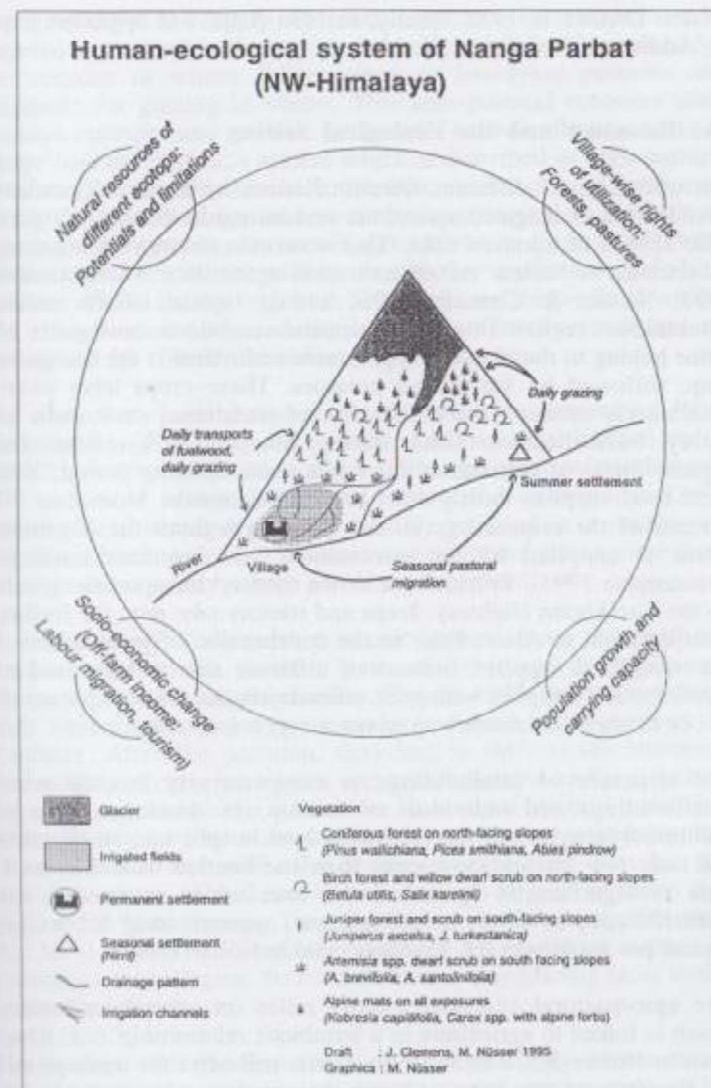


Throughout the 'settled areas' of the Gilgit Wazarat, including the Astor Tahsil, cadastral surveys ('settlements') were carried out by the State of Jammu and Kashmir in accordance with the general practice in British India (Singh 1917). These settlements covered all villages of Astor, they consisted of all individual plots of cultivated land and laid the basis of the land revenue system. Taxes had to be paid in cash, occasionally also in kind (Singh 1917). The villages' common utilization rights in state forests and on alpine pastures were included in the particular villagewise files. Grazing of animals and the collection of fuelwood was granted to all inhabitants of particular villages free of cost. These rights of access are still in effect today and also determine the villages' actual pastoral economy. Until today, villagewise cadastral files and maps serve as a basis for settling land conflicts.

Astor lost its function of a mountainous transit region with the partition of British India and Kashmir in 1947. The 'line of control' is situated approximately 70 km south of Astor proper near to Kishanganga river (see the map). It cuts Astor off its historical and economic connections with Srinagar. At the same time, large army units were posted at several locations of Astor. Their presence caused additional pressure on the local forest resources (see below). The 'peripheralization' of Astor has been gradually broken up after the completion of the 'Karakoram Highway' in 1978 and the construction of jeeproads to most of the side valleys.

Since Astor had and still has a pure Muslim population of Sunni and Shia sects, it became a subdivision of the 'Gilgit Agency' in 1947 after the independence from the Maharaja in Srinagar, a Hindu ruler. These territories voted for the integration with Pakistan and a new Political Agent was appointed by the federal Government of Pakistan. Until 1973, the Raja of Astor still possessed a nominal power. Nevertheless, the Political Agents were in charge of the political and administrative affairs.

In 1972 and eventually in 1974 all feudal structures were abolished together with the taxes and the land revenue system. In addition, the federal government started to supply food at subsidized rates (Dani 1989; Kreutzmann 1993). Together with these administrative reforms Astor was added as a subdivision to the newly created



'Diamir District' in 1972. Finally, in 1993 Astor was upgraded into an 'Additional District' of Diamir.

The Economy and the Ecological Setting

The utilization of different altitudinal zones by an interdependent combination of irrigated agriculture and animal husbandry allows a wide spread of agrarian risks. This economic strategy of assuring subsistence is called 'mixed mountain agriculture' (Kreutzmann 1993; Nüsser & Clemens 1996) and is typical of the entire mountainous region. Due to the climatic conditions, most parts of Astor belong to the single cropping area and wheat is the dominant crop, followed by maize and potatoes. These crops have overwhelmingly reduced the cultivation of traditional ones such as barley, buckwheat or millet. Barley, however, still reaches the highest limits of cultivation due to its short ripening period. Yet, local food supplies mostly don't meet the demands. More than 50 percent of the required grain and flour throughout the Northern Areas is supplied by the government (cf. Saunders cited in Kreutzmann 1995). Trucks from 'down country' transport the goods up the Karakoram Highway. Jeeps and tractors take over the further transportation to Astor. Prior to the construction of jeeproads and the subsidized supplies, farmers of different side valleys used to travel for self-supplies with pack-animals via the western passes to Kel or further to Mansehra up to twice a year (see map).

The structure of landholdings is comparatively homogenous; smallholdings and individual ownership are dominant. Due to traditional inheritance, the cultivated land is split into small units and only few farmers own more than one hectare of arable land. This is significantly less than the area which is needed for self-sufficiency in single cropping areas, approximately 2.5 to 3.0 hectares per household (cf. Saunders cited in Gohar 1994).

The agro-pastoral economy mainly relies on animal husbandry which is linked to agriculture in a 'symbiotic relationship' (c.f. Khan cited in Nüsser & Clemens 1996). Cattle still offer the main power for plowing and threshing, and with their manure, animals replenish the cultivated soil. Tractors cannot reach all fields due to the rough

topography and the supply of mineral fertiliser is still unreliable and expensive. Animal husbandry in Astor is especially determined by the amount of winter fodder since no low-lying pastures are available for grazing in winter. This agro-pastoral economy uses various ecotopes and summer settlements periodically in a vertical range (see the figure), a system which is described as high pasture economy or 'Staffelwirtschaft' (altitudinal zonation of land use, Uhlig 1995). The major reasons for such strategies are the lack of grazing resources close to the villages and the tradition that forbids to keep animals in the village during the vegetation period in summer. Dates for the migration of animals are jointly fixed within the village community and depend on the climatic conditions in spring and the completion of harvesting in autumn.

To control the scarce resources, the village communities have developed joint management structures and informal institutions in all villages. The construction and maintenance of irrigation channels and paths or bridges is carried out by the community. Daily grazing of sheep and goats is mostly practiced in a traditional rotational herding system; relatives and neighbors put together their animals and regularly submit one man as shepherd.

In the summer 'Bakrwals', nomadic groups from the northern Punjab, come to the southern parts of Astor and to the Deosai Plateau via the Kishanganga valley. Prior to 1947, they used to take their animals, sheep and goats, mules and donkeys, to pastures in Kashmir. After the partition, they had to shift to the Northern Areas. They occupy the highest stages and pastures and to a limited degree compete with the farmers for these areas' pasture resources. Yet, the alpine pastures are generally not overgrazed by the farmers' herds and still offer sufficient capacities also for the nomads' animals. The Bakrwals sell donkeys as well as sheep and goats to the local farmers. They also buy most of their supplies from the local bazaars. Therefore, conflicts only seldom occur. In contrast to the villagers, the nomads have to pay grazing taxes to the forest department.

The ecological situation throughout Astor is highly differentiated due to topography and climate. Astor's climate is characterised by hot and dry summers together with cold and humid winters. Huge

amounts of snow fall especially in the higher-up side valleys of Astor. Precipitation is highest in winter and spring. Cultivation of fields is only possible with irrigation that mostly relies on meltwater of snow and glaciers. Compared to neighboring regions, especially to the north and to the east, however, *"the forests of Astor are fairly extensive ..."* (Singh 1917) and the pastures are *"... the most valuable grazing grounds located in the vicinity ..."* (Sheikh & Aleem 1975). Temperate coniferous forests are located on northerly slopes, steppe vegetation with dwarf-shrubs of artemisia and juniper are situated on southern exposure and on the valley bottoms (for a detailed description of the natural setting in parts of Astor see Nüsser & Clemens 1996).

Changes since the Partition of Kashmir

Besides the changes in politics, administration and transportation, Astor's economy and socio-economic conditions also show a very dynamic development. Independence from the Hindu ruler allowed the Muslim population to intensify the rearing of cows and bulls. Before, they were not allowed to slaughter cattle even for their own demands due to Hindu rules (Lamb 1993). Nowadays, the farmers are free in the disposition of animals. The number of pack animals, especially horses, has fallen significantly due to the growing importance of tractors and jeeps. Nevertheless, every family keeps one donkey for carrying fuelwood or taking supplies to the summer settlements, which can only be reached on foot.

The strongest impetus for socio-economic changes was given by the construction of jeep roads and the completion of the Karakoram Highway. Although Astor has always been connected to neighboring areas, this means of transportation has intensified the exchange of goods and ideas. Astor and its side valleys are easily accessible nowadays for grain supplies and different services, i.e. health, schools or by development agencies. At the same time, men of Astor can easily reach the regional market places and cities of down country Pakistan for further studies or for off-farm employment. Roads also facilitated the development of tourism in particular in the regions close to the Nanga Parbat, a prominent destination of mountaineers and trekkers. This modern road network is vulnerable

since heavy rains, mudflows or rockfalls often hit the roads and block them for several days.

Throughout Astor the growth of the population is significantly high, approximately 3 percent per year. Simultaneously, the number of livestock is also increasing at varying rates (Nüsser & Clemens 1996). Nevertheless, the intensity of high pasturing still does not affect the carrying capacity of the pastures (Clemens & Nüsser in press). Indicators of a certain grazing pressure are limited to the main routes of pastoral migration and the grazing areas in close proximity to the summer settlements.

The major limiting factor of animal husbandry is still the scarce fodder supply in winter. Off-farm employment has not yet significantly effected the cropping patterns and agro-pastoral economy. Although non-agrarian income supplements the household economies significantly to still increasing degrees, it is mostly confined to seasonal jobs especially in winter. Most of the extended families share their male labour force. At least one man stays with the family for agricultural work while young men look for off-farm employment.

Still, Astor's economy is mainly based on agriculture although external inputs, off-farm income, subsidized food supplies or different economic incentives, are becoming increasingly important. However, as opposed to adjoining regions in proximity to urban or administrative centres of the Northern Areas or with more tourism, these 'modern' effects can still be implemented within the given system of resource management and the social structures of extended families.

Special incentives were introduced in 1993 as part of a broadbased participatory rural development program. The main objective of the concerned 'non governmental organization' is to improve the agrarian productivity for example with rural infrastructure schemes, improved seeds and the promotion of knowledge and distribution of mineral fertiliser. This program also tries to integrate the local knowledge of natural resources, land use or herbs and medical plants. Particular attempts are undertaken for skill training of men and also of women, together with improvements in the marketing of potatoes, vegetable or meat (c.f. AKRSP 1993; Clemens 1993).

Due to the growing population the region's forests are exposed to increasing pressure. Their natural regeneration is endangered through the growing domestic demand for fuelwood and timber. In addition, plots of commercial cutting for the supplies of the army garrisons were established in several forests of Astor. This practice was only stopped completely a few years ago after the substitution of kerosene oil for fuelwood.

Because of the relative abundance of forest resources in Astor the village communities didn't have to develop indigenous strategies of a sustainable forest management. Since villagers are only granted utilization rights, they claim that they have no medium-range assurance of gaining profits from their own plantations in the state forests. Therefore, a sustainable utilization could only be assured after a reformation of the forest management. All further policies should include incentives for the local population together with their direct and equal participation during the planning and implementation processes.

Conclusion

Although the population and the number of livestock are increasing, the ecological balance of the pasture resources in Astor still remains stable. The sustainable utilization of the natural resources and the forests in particular needs urgent consideration by all concerned groups, the local population as well as the forest department and NGOs.

Although the agro-pastoral economy is no longer a 'traditional' one, mainly well adapted principles are used for managing the area's cultural landscape (Ehlers 1995). The 'human ecological system' has been strongly influenced by political and administrative means together with dramatic changes and later improvements of the communication infrastructure. The general ecological and socio-economic sustainability, can only be achieved after a careful selection of policies on administrative and local levels.

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Map: Astor Valley (Gilgit-Wazarat). Historical Routes. Draft: J. Clemens, 1995.

Figure: Human-Ecological System of Nanga Parbat (NW-Himalaya). Draft: J. Clemens & M. Nüsser, 1995. Source: Clemens & Nüsser, in press.

ETHNIC GROUPS AND BAZAAR ECONOMY IN BALTISTAN

Andreas Dittmann

Bonn

Introduction

The rapid growth and inner structure of traditional bazaars have always been one of the major important determinants for the development of settlements in the Karakorum and Western Himalaya. For the western part of the Northern Areas, the territory of the former Gilgit Agency, the mechanisms of the relations between urban and surrounding area as well as the different historic phases of the development of settlements and their bazaars have been pointed out earlier (Dittmann 1994, 1996). It was possible to delineate the most important determinants for this area, particularly with the example of Gilgit as the most important regional center.

The characteristic features of settlement and bazaar development in the northwestern Karakorum are a distinct separation of residential and business functions, the missing of concentrations of similar goods and services in certain bazaar sections and, to varying extents, the ethnically defined division in different bazaar sections. Those characteristics already having been demonstrated for the western part of the Northern Areas, the current article examines whether the results can be transferred to the eastern part of the Northern Areas, i.e. the region of the historic province of Baltistan¹, or whether modifications are necessary. However, the two compared regions differ considerably with regard to the conditions directing urban development.

1. Subsequently, the name Baltistan is used for the historic province of Baltistan which comprises the two present-day eastern administrative districts of the Northern Areas: Baltistan District with its center Skardu and Ghanche District with the center Khaplu (Dittmann 1994, p. 326). In some sources this area is also called "Little Tibet", referring to its historical background (Afridi 1988).