

Change of the Livestock Farming in Hussaini Village, Gojal District, Northern Pakistan

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Abstract

The Gojal district is located in the far northern part of Pakistan bordering China to the north and Afghanistan to the northwest. The Gojal district maintained a self-sufficient lifestyle until the late 1980s by relying on traditional farming and agricultural techniques that include irrigated agriculture of wheat and beans and livestock farming by transhumant grazing such as sheep and goats. However, the Karakoram Highway (KKH) was opened in 1987 along the Hunza River, running through many villages in central Gojal district. The opening of the KKH contributed to advancing modernization in the northern region of Pakistan, particularly for developing the goods/money market economy. The villagers responded to the emergence of a society that required monetary income by introducing potato to produce a cash crop as a source of income and the expansion of such agriculture. The livestock farming is changing in the Hussaini village. Recent trends indicate a dramatic reduction in the number of grazing livestock by several factors at the base of the penetration of market economy. This report, focusing on the case of the Hussaini village, clarifies the factors that led to the decline of the stagnant village livestock farming.

Key words : Livestock farming, Hussaini village, Gojal district, Northern Areas of Pakistan

I. Introduction

The Gojal district in the Northern Areas of Pakistan, bordering the Xinjiang Uyghur Autonomous Region of China to the north and the Islamic Republic of Afghanistan to the northwest as shown in Fig. 1, maintained a self-sufficient lifestyle until the late 1980s by relying on traditional farming and agricultural techniques that include irrigated agriculture of wheat and beans during summer and livestock breeding by transhumant grazing of animals such as sheep and goats. However, this region changed significantly in 1987 with the opening of the Karakoram Highway (KKH), which extends through the Gojal district. In particular, economic growth in this region was bolstered through an influx of

goods and services and the Gojal district was made more accessible by the new highway, subsequently creating consumer demand. Because of this transition, the self-sufficient lifestyle was no longer economically viable as a principal means of support, leading to a significant alteration in the administration of villages. For example, breeding of sheep and goats was scaled down, while farming of wheat and beans was replaced by cash crops such as potatoes.

This report, focusing on the case of the Hussaini village, located near the centre of the Gojal district, clarifies the factors that led to the decline of the stagnant village livestock farming, especially based on the factors from stagnations to decline.

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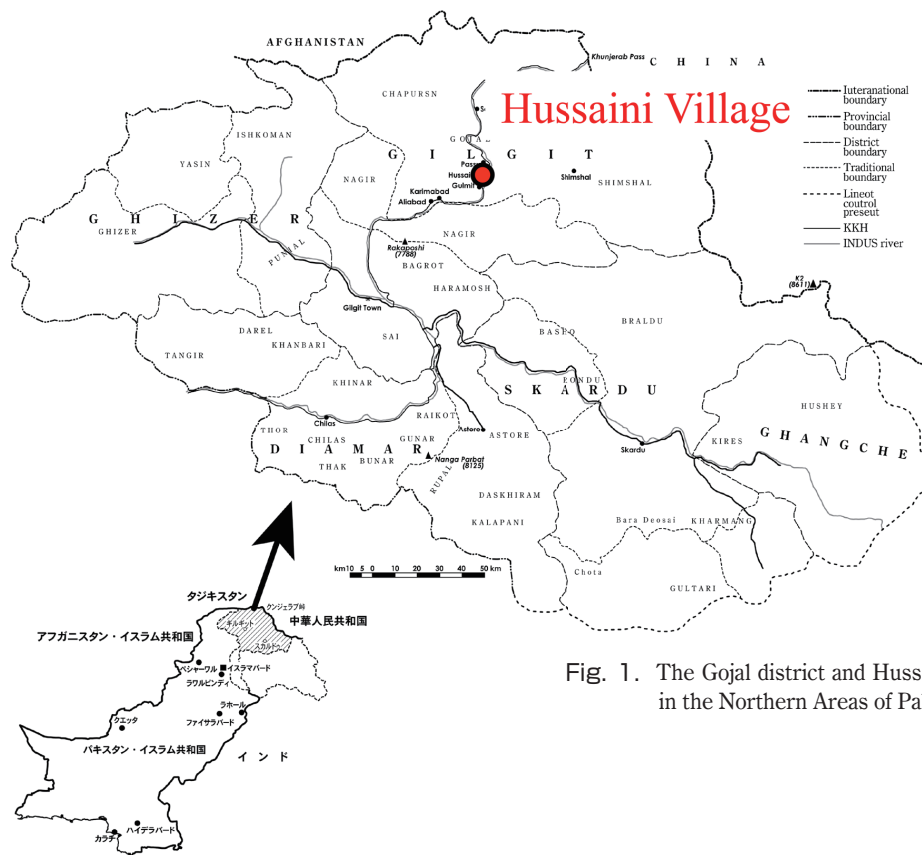


Fig. 1. The Gojal district and Hussaini village in the Northern Areas of Pakistan

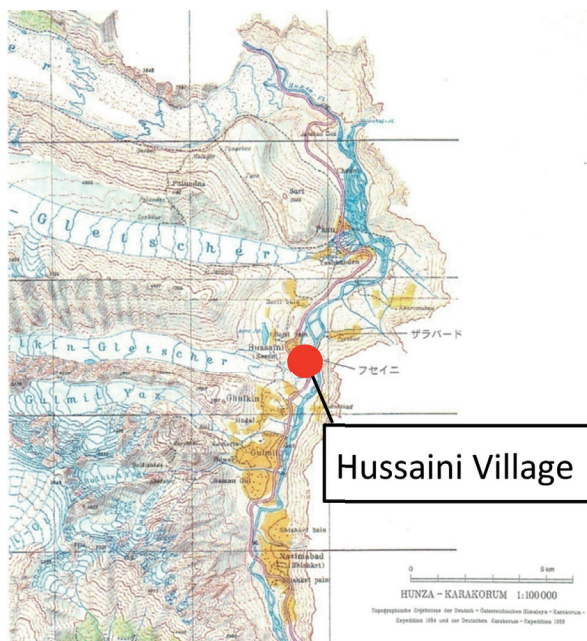


Fig. 2. Natural environment of Gojal district and Hussaini village (Base map: Austrian Alpine Club 1:100,000 map)

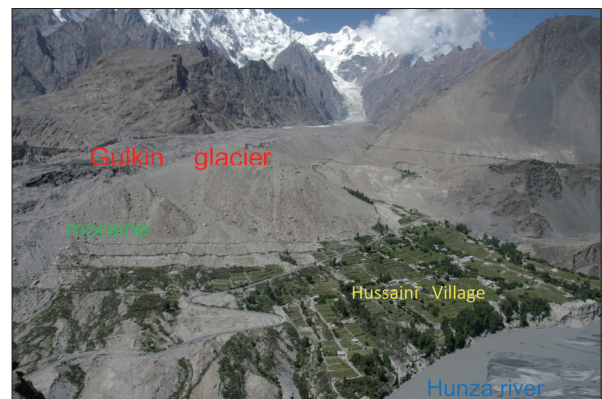


Fig. 3. Landscape of the Hussaini village (Photo: Aug. 2007, KM)

II. Location and overview of the Hussaini village

The Hussaini village is situated on the right bank of the Hunza River, which is a tributary of

the Indus River, and is located on the eastern lateral moraine of the Gulkin glacier as shown in Figs. 2 and 3. The Hussaini village is inhabited by the Wakhi tribal people and comprises 80

farming households with a population of 565 as of 2002¹). Until the late 1980s, the Hussaini village had maintained a self-sufficient lifestyle through traditional agricultural techniques and livestock breeding as did many other villages in the Gojal district. However, the opening of the KKH, which cuts across the centre of the village, significantly affected this traditional lifestyle by making available large volumes of Chinese products, thereby altering the village lifestyle from self-sufficiency to dependency on nonindigenous products. Villagers, who now needed a new source of income in order to purchase these products, aggressively cultivated cash crops such as potatoes, and particularly in the case of younger villagers, sought employment in other industries. As previously discussed (Mizushima, 2008, 2009), the introduction and expansion of potato cultivation resulted in a shortage of water used for farming and irrigation, which the village aggressively attempted to resolve. On the other hand, villagers who sought employment in other industries, especially the younger generation, had moved to other regions, and thus, the communal lifestyle of the village faced a remarkable change, particularly in livestock breeding.



Fig. 4. Pastoral mobility in the Hunza Valley (Produced by Hermann Kreutzmann)

III. The form of transhumance in the Hussaini village

The rearing of livestock in the Gojal district is in the form of transhumance. Because this district is in an arid, mountainous region, villagers have strived to secure feeding grounds for their livestock. These grounds are easily obtained in summer because the high level of precipitation enhances the glacier's rich natural vegetation. Many villages of the Hunza valley have a summer pastureland near glaciers, the access paths of pastoral mobility are different in each village, and the distances from village to pastureland spread 5 and 75 km as shown in Fig. 4 (Kreutzmann, 2012).

The Hussaini village offers summer pastureland in five locations: (1) Malugin, (2) Garben, (3) Kirgaswashk, (4) Wudmul, and (5) Meidan (Fig. 5). The farthest grazing ground from the village is in Meidan, located at an altitude of 3,200 m and approximately 25 km from the village. Traditional transhumance centres on this Meidan summer pastureland, where villagers begin to move their livestock to the summer pastureland around 20th May every year. Initially, the KKH is utilized for moving the livestock to the end of the Batura glacier as shown in Fig. 6. From there until Malugin, Garben and Kirgaswashk, the livestock

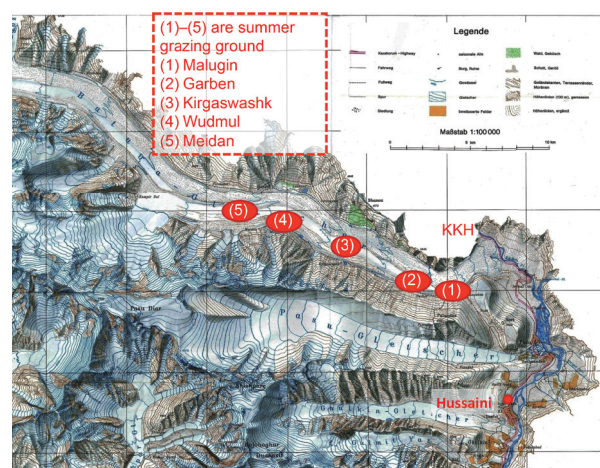


Fig. 5. The summer grazing ground of the Hussaini village on the right bank of the Batura glacier (Base map: Austrian Alpine Club 1:100,000 map)



Fig. 6. The movement of sheep and goats to the end of the Batura glacier on the KKH (Photo: May 2013, KM)



Fig. 7. Road of the end of the Batura glacier
(No road exits on the moraine)
(Photo: Aug. 2011, KM)



Fig. 8. Road near Garben
Vegetation of pasture is very poor near Garben. See Fig. 5 for the location of Garben.
(Photo: Aug. 2011, KM)



Fig. 9. A pen of Kirgaswashk (Photo: Aug. 2011, KM)

continue on a steep moraine slope where roads are scarce as shown in Figs. 7 and 8. During this migration, the livestock stop at three summer pasturelands. The livestock is grazed on this land of Kirgaswashk at an altitude of 3,000 m from the end of May to the middle of July as shown in Fig. 9. In the end of July the livestock move the pastureland in Meidan as shown in Figs. 10 and 11. The livestock is grazed on this land at an altitude of 3,200 m until the middle of September. In Meidan the village people control movement of sheep and goats in the pastureland and pen daily work over two months. In the end of September the livestock leave Meidan for the Hussaini village.

At present the summer grazing grounds are managed by 15 farming households. When I visited Meidan on 29th August 2011, three women worked as shown in Fig. 12. The three women

milked at about 6 a.m., and then they made cheese and butter. But, in recent years these jobs are gone gradually. At 10 a.m. all sheep and goats are taken to grazing grounds. They bring together sheep and goats from pastureland to a camp at 4 p.m. They count the number of sheep and goats, and take lambs and kids away from their mothers to put them in a shelter to protect them from wolves. They finish jobs of a day at 7 p.m.

IV. Change of the livestock farming in the Hussaini village

Recent trends, however, indicate a dramatic reduction in the number of grazing livestock as shown in Table 1. Until the first half of year 2000, the number of sheep and goats had exceeded 1,200 (1,329 in 1999, 1,230 in 2005)²⁾; however, this number dropped down by 450 in the survey of



Fig. 10. Camp of Meidan and A pen of villagers
(Photo: Aug. 2011, KM)



Fig. 11. Camp site of Meidan in the evening
(Photo: Aug. 2011, KM)



Fig. 12. Breeding and management by three women of the village
They are working about a week in Meidan.
(Photo: Aug. 2011, KM)



Fig. 13. The natural vegetation is running dry for a long
grazing time in Meidan
(Photo: Aug. 2011, KM)

Table 1. The number of sheep, goats and cattle in the Hussaini village

	sheep	goats	cattle	total
1995	413	916	194	1523
2005	365	865	314	1544
2011	60	390	ND	ND

Data are from Ali Rehmat (personal communication) and from an interview of village people. ND: No data.

2011.

Several factors have contributed to this decline. The first factor is the penetration of a market economy in this region and the reduction in tourism. This has diminished the demand for livestock products such as wool, butter, cheese and meat, resulting in a significant reduction in income. The second factor is that the naturally grown food supply has been reduced through many years of grazing like circumstances of the natural grass on a cliff of the upper camp as

shown in Fig. 13, resulting imbalance between production and consumption of the natural grass according to my observation and a talk of the village people. The third factor is the trend of villagers seeking alternative employment options elsewhere and the tendency of new villagers to avoid the difficult task of summer pastureland management.

Because of these factors, the village has deemed livestock management in summer pastureland to be the communal responsibility

of the entire Husseini village, and has allocated the work to two groups. Currently, feeding is managed only by 15 farming households with 450 head of livestock. Although villagers remain aware that livestock maintenance is crucial, village transhumance factors have changed. An interest in livestock management is gradually moving from stagnation to a state of decline, with fewer people engaging in the harsh administration tasks at the summer pastureland³⁾.

As previously mentioned, the penetration of a market economy that assumes the availability of income not only disrupted the self-sufficient lifestyle that depended on traditional agriculture and livestock breeding, but also encouraged transition to a lifestyle that presupposes the purchase of many nonindigenous products. The village currently faces a situation in which stable cash income cannot be guaranteed, and is confronted with a harsh natural environment that includes frequent natural disasters. The most important current issue for the villagers is sustainable development and maintenance.

V. Occurrence of new problems

As the large landslide happened in the Atabad village on 4th January 2010, 18 people of the village died. At the same time, the landslide dammed the Hunza River, and surprisingly the Hunza River from the Atabad village to the Hussaini village became a large dammed lake (22 km long) as shown in Figs. 14 and 15. A few villages and part of the KKH were submerged. The KKH has been closed, so that movement of people and transportation of commodities on the KKH have been completely stopped: the movement and transportation changed from vehicle to small boats as shown in Fig. 16.

Many villages of the Gojal district including the Hussaini village suffered enormous damages. For example, the number of tourists decreased although the Gojal district has natural resources for tourism, and tourist facilities such as hotels

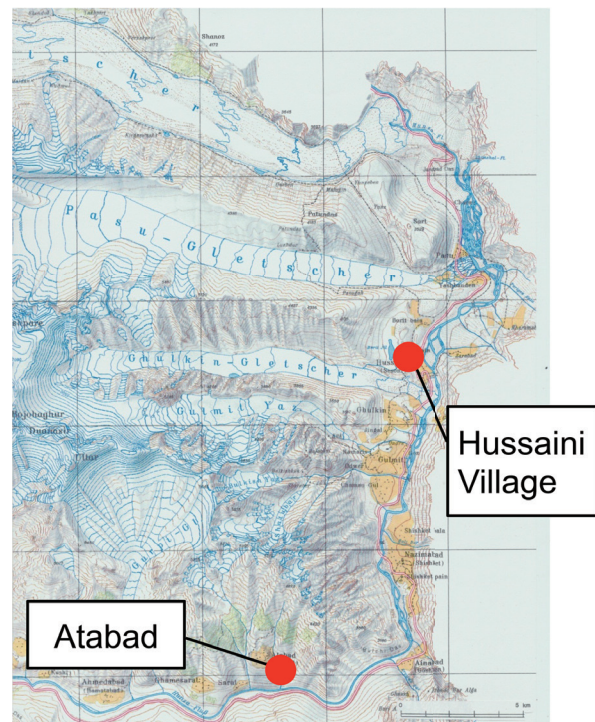


Fig. 14. Landslide point of the Atabad village (Base map: Austrian Alpine Club 1:100,000 map)



Fig. 15. Landscape of the Hussain village after the sunk of the KKH under the water (red dotted line) (Photo: Aug. 2011, KM)



Fig. 16. A transportation boat for commodities on the big dammed lake (Photo: Aug. 2013, KM)

and restaurants are quit deserted all seasons.

VI. Conclusions

Livestock farming is currently important in the Hussaini village. However, several factors caused the recent decrease of both the number of sheep and goats and the number of farming households of breeding region. The first factor is that traditional foods such as cheese and butter, and traditional cloths (wool cloths) were alternated goods of the market. The village people can purchase them at a store easily. This has diminished the demand of livestock products. The second factor is that the naturally grown food supply has been reduced through many years of grazing, resulting imbalance between production and consumption of the natural grass. The third factor is the trend of villagers seeking alternative employment options elsewhere and the tendency of new villagers to avoid the difficult task of summer pastureland management.

Because of these factors, although the village has deemed livestock management in summer pastureland to be the communal responsibility of the entire Hussaini village, this method changed. Currently, breeding is managed only by farming households with 450 head of livestock. Although villagers remain aware that livestock maintenance is crucial, village transhumance factors have changed. An interest in livestock management is gradually moving from stagnation to a state of decline, with fewer people engaging in the harsh administration tasks at the summer pastureland.

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Notes

- 1) The Wakhi is a minority mountain tribe that originated in the Wakhan region in northeastern Afghanistan. They do not have a written language, but the spoken language of the Wakhi belongs to the Iranian language group of the Indo-European language family, similar to Persian and Tajik. The religion practiced by the Wakhi is Ismailism, a branch of Islam.
- 2) Data of the livestock in 1995 and 2005 were derived from Ali Rehmat (personal communication).
- 3) The Gojal district, including the Hussaini village, lacks official statistical data, which result in inconsistency in numerical data for each survey or interviewee. I confirmed villagers about the data of the number of sheep and goats in 2011 as shown in Table 1.

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