

Environmental Constraints, Health and Population Trends Among The Muslim Gujjars of Himachal Pradesh, India

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ABSTRACT A study has been carried out among the Muslim Gujjars of Himachal Pradesh in relation to population, health and environmental constraints. The study shows that a number of behavioural and environmental variables such as altitude, climate, transhumance, etc. influence the population growth and development of Muslim Gujjars in the Himalayan eco-system. Like the Muslim populations elsewhere in India, the Muslim Gujjars of Himachal Pradesh show trends of high fertility and high mortality. These findings have been discussed with reference to current population control measures in India

INTRODUCTION

The state of Himachal Pradesh situated in the North-Western part of India is a land of lush green forests, deep river valleys, beautiful plateaus and snow-capped lofty mountains. It is bordered with Jammu and Kashmir in the North, Punjab in the West and South-West, Haryana in the South, Uttar Pradesh in the South-East and with China in the East (Fig. 1). The area as a whole is hilly, mountainous and the major part is inaccessible, physiographically complex, snow-covered and forest-clad. The altitude varies from 450 to 6500 metres above sea level in Himachal Pradesh. Diverse agroclimatic conditions afford excellent opportunities for horticulture and growing of cash crops like apples, etc. Forests occupy about 39% of the total area of the state. Apart from the agriculture, the mainstay of the people, animal husbandry also plays a vital role in the pastoral economy of the people in Himachal Pradesh. Over three fourth of its working

population is directly engaged in these sectors. Land holdings are marginal with over 80% farmers falling under small and marginal categories. The net irrigated area accounts for one-fifth (27.6%) of the total area. A wide range of altitudes, vegetal cover and fluctuating climatic conditions have resulted in a diversified human mode of living and, consequently the economic pursuits in the state of Himachal Pradesh.

It is, therefore, worthwhile to study the impact of environmental constraints on the population structure and health of the people in the Himalayan region. The present study is focused on the Muslim Gujjars of Chamba District in Himachal Pradesh.

GUJJAR POPULATION

According to the Census Report of 1991, the total population of Himachal Pradesh is a little more than five million (51,70,877) people. The Scheduled Castes (13,10,296) and Tribes (2,18,349) constitute 29.5% of the total population of Himachal Pradesh, the Scheduled Tribe being 4.2%. The tribal area of the state accounts for about 42% of the total geographical area of Himachal Pradesh. Muslim Gujjars of the state are one of the Scheduled Tribes declared since 1956. They mostly confine themselves to the Himalayan regions in the state of Jammu and Kashmir, Himachal Pradesh and the western part of Uttar Pradesh. They are semi-nomadic (transhumant) semi-agriculturist and pastoral people. They inhabit exclusively the Himalayan hills, lead pastoral and semi-nomadic life with seasonal migrations, called transhumance, between high altitudes and the

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plains of Punjab, especially during the winter months (September-October to April) searching for conducive climates for their milch cattle. They move with all their paraphernalia along the specified routes and scatter in the plains of Punjab. Originally, the Gujjars were Hindus, but during the reign of Aurangzeb, they have been converted to Islam (Balgir, 1983).

In Himachal Pradesh, the Gujjars constitute a large part of the population. In 1971, they formed 14.6% of the total tribal population and 0.6% of the total population of Himachal Pradesh. About 31.5% of the total population of Gujjars lived in Chamba district according to 1971 Census. In Chamba Tehsil (where the present study has been conducted) the Gujjars constituted 62% of the total Gujjar population of Chamba district, 19.6% of the total population of Gujjars in the whole state and 2.9% of the total tribal population of Himachal Pradesh. The Gujjars of Chamba Tehsil,

according to Census 1971, formed 28.4% of the total Muslims of Chamba district and 8% of the total Muslim population of the state. The Gujjars in Himachal Pradesh are mostly Muslims and belong to the Sunni sect of Islam. The Muslim Gujjars of the Himalayan regions are unlike those of the plains. They mainly keep buffaloes and keep themselves moving with change of season from low to high and high to low ranges of Himalayas in search of Alpine meadows. During the summer, when the climatic conditions in the upper ranges (locally called *Dhar* or *yote*) favour growth of grass in the hills and the environment is quite conducive for milch cattle where the buffaloes rejoice in the rich grass, the Gujjars migrate to the snow-capped peaks of Himalayas. They live in the out-skirts of the forests and maintain their existence exclusively by the sale of milk, ghee (clarified butter) and other produces of their herds.

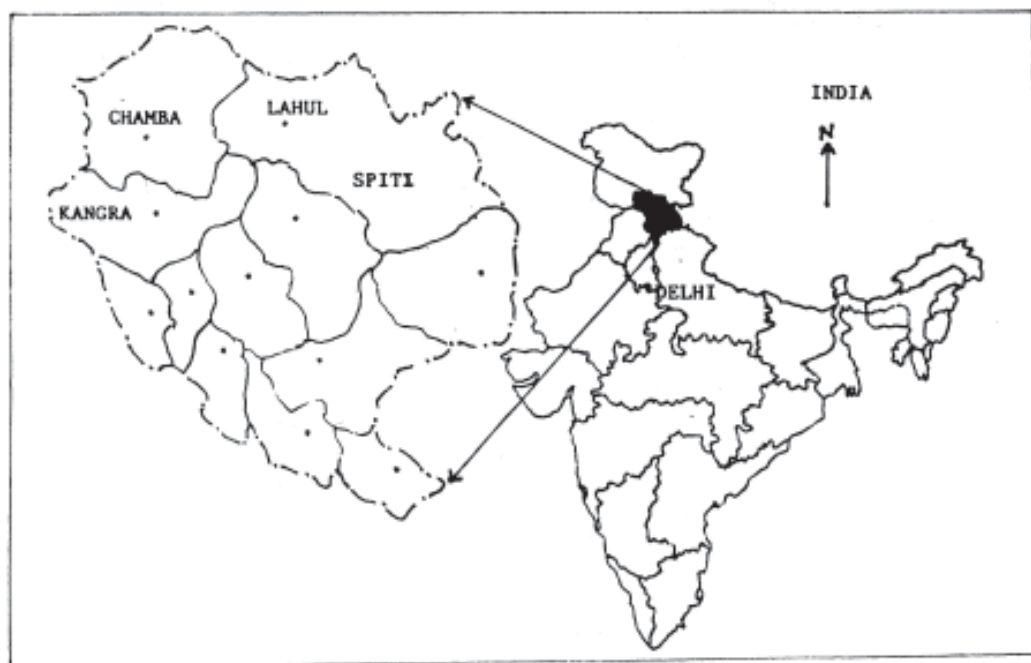


Fig. 1. Map of India showing the State of Himachal Pradesh

ENVIRONMENTAL VARIABLES INFLUENCING GUJJAR POPULATION

There are several factors which affect the Muslim Gujjar population in the Himalayas. In fact, their life-style as a whole is dependent upon the prevailing eco-biological conditions. Some of these major variables are described here:

I. Ecological and Geographical Setting

In the Himalayan region where the Muslim Gujjars habitate during summer is about 4600 metres above sea level. The effects of such high altitude are obvious. The Himalayan region is characterised by a sparse population, thick forests, and rugged, inaccessible mountain terrains in the interior (remote area) of the Greater Himalayas.

II. Climate, Humidity and Temperature

The variations in man-mountain relationship may be studied against the background of oscillatory conditions of mountain environments. Altitude is generally associated with low temperature, high precipitation and high weather variability. The Himalayan region where the Muslim Gujjars habitate has the arctic humid conditions of low oxygen level. All these abiotic factors bring about changes in the work potential, mating pattern, fertility, morbidity, mortality, epidemiology and in the biomass as a whole of the population.

III. Habitation and Medical Facilities

During the winter months when the severe cold weather does not allow them to stay in the Himalayas, they start travelling down. Their migratory habits in the hazardous terrains affect their fertility, mortality and vulnerability to various diseases. The Muslim Gujjars are practically devoid of medical facilities.

IV. Subsistence and Survival

The Muslim Gujjars are traditionally pastoral people who apart from selling milk, milk

products, herd produce, etc. supplement their earning through agriculture, poultry, selling of honey and such other economic pursuits. They have a very limited space and meagre holdings to cultivate and to exploit the natural resources on the slopes of the rocky hills.

V. Consanguinity and Genetic Traits

The cohesiveness in the Muslim society and the urge to have "family feeling" among the individuals in the remote inaccessible areas of Himalaya is certainly needed. They, therefore, perpetuate the consanguineous marriages and territorial endogamy which results in inbreeding, leading to the expression of certain recessive harmful (lethal) as well as beneficial traits. The consanguinity may increase the homozygosity of genetic characters in the population.

VI. Developmental Constraints and Basic Facilities

Keeping aside the geographic and climatic constraints, the following limitations are responsible for the poor development of the economy and the people: low level of education and literacy, absence of transport and communication, lack of marketing facilities, lack of industry and electricity supply; and lack of health and hygiene facilities as well as basic amenities, etc.

STUDY AREA AND METHODOLOGY

Data on the Muslim Gujjars have been collected from five villages (Sahoo Area), namely, Paddar, Proatha, Sra, Qureel and Rajindu in Chamba Tehsil and district of Himachal Pradesh. The altitude of this area varies between 1900 to 2700 metres above sea level. These villages are situated about 25-40 km North-East of Chamba Town on the Sahoo river-let which ultimately joins the major river Ravi near the township of Chamba. The Sahoo area falls under Chamba tehsil, which is surrounded by

mountain ranges and alpine forests. This area comes under the Sahoo Range of Pir Punjal (snowy range) of Great Himalayas. The summer is mild and pleasant. The winter is severe. The heavy snow fall restricts the movement of the people during winter, hence they start transhumance towards the plains of Punjab. Most of the geographical area is under forest cover and about 10% is under permanent pastures or cultivation. The density of population is sparse. The means of communication are very poor; the area completely lacks vehicular roads. The goods are transported either on head-loads, mules, sheep or buffaloes. On account of the peculiar topography, heavy snowfall, only seasonal crops like maize, etc. are grown during rainy season. Like other Muslim populations elsewhere in India, the Muslim Gujjars also practise polygyny and consanguineous marriages frequently, which lead to intense inbreeding in them.

The data for the present study were collected from 101 households on predesigned proforma following the personal interview technique during the period from February to April 1979. Demographic and reproductive information were collected primarily from adult (20-50 years of age) couples (husband and wife) following the statistical random sampling procedure.

RESULTS

It appears from table 1 that the majority of Muslim Gujjars belong to the younger age groups and thus the population is growing. The reproductive age group of 15-49 years indicate high fertility among the Muslim Gujjars because of the practice of polygyny. High sex ratio in this age group shows the prevalence of polygyny among the Muslim Gujjars of Himachal Pradesh. Sometimes, in addition to his own wife a man also marries the widow of his brother and hence ends up with more than one wives. If the widow is young, she also bears children. The higher age category represents a few persons which suggests a poor

health condition especially of women when they grow old, and high mortality is indicated as the age advances.

Table 1: Distribution in major age groups and sex ratio of Muslim Gujjars

Age Group in years	Males		Females		Sex Ratio
	No.	%	No.	%	
0-4	74	8.9	72	8.7	973
5-14	126	15.2	125	15.1	992
15-49	181	21.8	187	22.5	1033
50+	39	4.7	26	3.1	667
Total	420	50.6	410	49.4	976

From table 2, it appears that the Muslim Gujjars have medium (4-6) to large (7-10) family size. This may be due to their needs of strengthening the economy. Also being uneducated and orthodox, they believe in maintaining large family size, because according to them, more children bring more income to the family.

Table 2: Distribution of household size and population of Muslim Gujjars

Household Size	Households		Population	
	No.	%	No.	%
Small (1-3)	8	7.9	21	2.5
Medium (4-6)	32	31.7	157	18.9
Large (7-10)	42	41.6	357	43.1
Very Large (11 +)	19	18.8	295	35.5
Total	101	100.0	830	100.0

The average surviving children (3.7) per mother is lower than the live-births (4.1) among the Muslim Gujjars (Table 3). The mortality and reproductive wastage are found to be 9.3% and 1.4%, respectively among them.

Keeping in view the topography and fragility of the hilly, snow-bound environment, together with lack of basic infrastructural facilities, the population growth, development and health of the people are likely to suffer from various ailments and diseases. Earlier, we have described some of the demographic characteristics and common prevalent diseases

Table 3 : Reproductive history of Muslim Gujar mothers

	Live Births	Surviving Children	Dead Children	Still Births	Abortion	Total Reproductive Wastage
No.	608	551	57	5	4	9
%	98.5	89.3	9.3	0.8	0.6	1.4
No. Per Mother	4.1	3.7	0.4	0.03	0.03	0.06

Table 4: Comparison of some demographic parameters of Muslim Gujjars with those of Himachal Pradesh and the total Indian population

Parameters	Muslim Gujjars* (1979)	Himachal Pradesh (1981)	India
Crude Birth Rate (CBR)	42.2	34.9	34.5 (Agarwala, 1977) 33.9 (1981) 30.5 (1989)
General Fertility Rate (GFR)	187.2	—	174.0 (Agarwala, 1977)
Child-Woman Ratio (CWR)	781	—	683 (1980)
Sex Ratio (SR)	976	988	935 (1981) 929 (1991)
Crude Death Rate (CDR)	13.3	—	14.5 (Agarwala, 1977) 13.0 (1979) 10.2 (1989)
Net Reproductive Index (NRI)	1.08	—	1.81 (Hans Raj, 1978) 1.48 (1991)

*Present Study

among the Muslim Gujjars and causes of death (Balgir, 1991, 1992).

COMMENTS

The most salient characteristics of Himalayan eco-system are the reduced atmospheric pressure, cold and irregular terrain which are the principal physical components of the high altitude environment. However, there are important additional factors such as the increased intensity of ultra-violet light due to reduced atmospheric absorption and/or increased reflection from snow; increased wind speed due to both elevation and/or lack of shelter on exposed slopes, and increased precipitation either as rain or snow, due to the reduced water vapour saturation pressure in the rarified air. All these additional physical characteristics have effects on humans, both at the individual and at the population level (Clegg et al., 1970).

It has been observed that the socio-cultural factors of differential transhumance pattern and differential exposure to altitude related physical environmental conditions may have important effects on the demographic characteristics of fertility and mortality. These are reflected in the present study of Muslim Gujjars population of Himachal Pradesh (Tables 3 and 4).

It appears from some vital demographic parameters (Table 4) that the growth rate (28.9%), child birth rate (42.2) and general fertility rate (187.2) of the Muslim Gujjars is much higher as compared to those in Himachal Pradesh in particular and India in general. The child-woman ratio and sex ratio of the Muslim Gujjars are also on the higher side than in India in general. However, the crude death rate of Muslim Gujjars (13.3) is slightly lower than that of the Indian population (14.5). The net reproductive index, although shows the progressive growth trends of Muslim Gujjars (1.08), yet it is lower than that in the Indian population (1.81) (Hans Raj, 1978).

In a developing country like India to achieve the goals of reducing the higher fertility level, it is essential to ensure the survival of children who are born, otherwise, the traditional pattern

of high fertility and high infant and child mortality will continue. The higher fertility is further entangled with economic benefits, i.e. more children bring more income to the family. Unless these attitudinal obstacles are overcome, the population control devices may have very limited impacts in India.

Further in a stable and secure economy, it is easy to convince the couples to limit the size of the family by adopting family planning methods or devices, but in an unstable economy like that of Muslim Gujjars who are not aware nor sure of what will happen tomorrow if their herd products are not sold in the open market, it is a very hard task to achieve the goal of family planning. Moreover, their occupation demands the involvement of many people for maintaining the herds; and for the various needs of daily life during transhumance as well as in the hazardous terrains of Himalayas. That's why they prefer large family size (Table 2).

Higher reproductive outcome under the environmental constraints and hazardous mountain terrains, coupled with sociobiological traditions of inbreeding certainly affect the health of the illiterate masses of Muslim Gujjars in Himachal Pradesh leading to various diseases. Virtually lack of medical facilities, lack of sense of hygiene and sanitation coupled with unhygienic dwellings in the presence of cold climate further compound their miseries.

The presence of Primary Health Centre (PHC), Sub-Health Centre or dispensary does not improve the health status of the people unless it caters to the needs of people. The sanctioned posts in most of sub-health centres

of dispensaries remain vacant, more so at Sahoo. There is a shortage of medicines. Those who want to avail of these health facilities, often have to travel long distances. This combines with shortage of medicine especially during winter results in most of the patients remaining unattended. There is a total lack of immunisation in the remote areas of Himalayas, e.g. villages of Sra, Qureel, etc. in Chamba district of Himachal Pradesh.

With the present trend of population growth of the Muslim Gujjars, it is very difficult to maintain an acceptable health status of the population.

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