

NATURAL RESOURCE MANAGEMENT PAPER SERIES

Number 7

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EVALUATION OF LAND TENURE SYSTEM:

Case Study of Jaisithok Village

Badri Jha

HMG-USAID-GTZ-IDRC-FORD-WINROCK PROJECT

STRENGTHENING INSTITUTIONAL CAPACITY IN THE

FOOD AND AGRICULTURAL SECTOR IN NEPAL

FOREWORD

This Natural Resource Management Paper Series is funded through the project, "Strengthening Institutional Capacity in the Food and Agricultural Sector in Nepal," a cooperative effort by the Ministry of Agriculture (MOA) of His Majesty's Government of Nepal and the Winrock International Institute for Agricultural Development. This project has been made possible by substantial financial support from the U.S. Agency for International Development (USAID), the German Agency for Technical Cooperation (GTZ), the Canadian International Development Research Centre (IDRC), and the Ford Foundation.

One of the most important activities of this project is funding for problem-oriented research by young professional staff of agricultural agencies of the MOA and related institutions, as well as by concerned individuals in the private sector. This research is carried out with the active professional assistance of the Winrock staff.

The purpose of this Natural Resource Management Paper Series is to make the results of the research activities related to natural resources available to a larger audience, and to acquaint younger staff and students with advanced methods of research and statistical analysis. It is also hoped that publication of the Series will stimulate discussion among policymakers and thereby assist in the formulation of policies which are suitable to the development of Nepal's agriculture.

The views expressed in this Research Report Series are those of the authors, and do not necessarily reflect the views of their respective parent institutions.

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In spite of all these government efforts, the growth rate of agricultural production is not encouraging. To achieve desirable targets, there has to be a radical change in attitude and motivation. A better attitude toward the peasants would prompt a better attitude on their part towards the land. Motivation would follow.

Land Tenure Today

Raikar: In this system land belongs to the government but is let out to tenants on payment of an annual fee which is collected through unofficial functionaries such as zamindars, zimmawals, mukhiyas, and talukdars. The land is inheritable, subdivisible, and transferable.

Guthi: This system began when the government transferred land ownership rights to individuals or institutions for religious and philanthropic purposes. The income derived from such land was intended to finance the maintenance of religious, charitable, and educational institutions. There are different types of Guthi, such as Rajguthi under which the land is reserved and directly managed by the government for the upkeep of temples, monasteries, and institutions.

Objectives of the Study

The general objective of this study is to evaluate the land tenure system and its effect on agricultural production; specifically to:

- discover the input/output ratio of different landowner groups;
- observe land maintenance system practiced by these groups; and
- make suggestions for improving the management of land resources and agriculture.

STUDY AREA

The study area lies in the northern part of Kavre-Palanchowk District, about 50 km east of Kathmandu. Jaisithok Village Panchayat (VP) is 25 minutes' walk from the Lamidanda market in Panchkhal. To the south is Panchkhal VP, to the east is Jyamdi VP, and to the west and north is Mahadevasthan VP. The Chakhola River runs through Jaisithok.

Jaisithok VP has a population of about 800 families. The specific village under study has 89 families, of which 80 were interviewed; (four households were absent and five households refused to reveal their incomes). The community consists of Brahmins, Newars, and Tamangs.

Jaisithok was selected because:

- the village has a variety of ethnic groups with different land tenure systems;
- the agricultural characteristics of the village are similar to other hill areas and can therefore be considered representative;
- the people are helpful and their response was encouraging;

EVALUATION OF THE LAND TENURE SYSTEM

Case Study of Jaisithok Village

Badri Jha*

INTRODUCTION

The agricultural sector of the economy, which employs 93 percent of Nepal's population, is of great concern to policy makers, agricultural program implementors, and researchers. Past plans which gave top priority to this sector need to be reconsidered. Their targets were not achieved, as a result of poor implementation, a lack of technically qualified manpower, poor coordination among concerned agencies, inadequate emphasis on environmental resource management, rugged geography, and a harsh climate.

However, the most noteworthy problems of agricultural development are institutional: the subdivision and fragmentation of landholdings, a defective land tenure system, insecure tenancy rights, exorbitant rents, and a shortage of cultivable land. These problems have their roots in the past, and for some time His Majesty's Government of Nepal (HMG/N) has tried to change the institutions which gave rise to them.

Land Reform in Nepal

After the political change of 1951, the government of Nepal passed the Act of Tenancy Rights Security which abolished the Birta system (in which land was given away by the Ranas in return for favors or specific jobs done), and its inherent tenure insecurity. The Royal Land Reform Commission was formed in 1952 to study agrarian problems and suggest appropriate legislative measures. The Records Compilation Act of 1956 was chiefly designed to compile land records through village committees and determine cultivators' rights to land. The Land Reform Act of 1957 was formulated to improve agriculture by securing tenancy rights, fixing rent at 50 percent of the gross produce, and prohibiting extra impositions on land. The Birta Abolition Act of 1957 was the most comprehensive government effort yet to abolish the feudal land tenure system and increase government revenue from land tax.

The Land Reorganization Act of 1962 was experimentally imposed in Jhapa, Palpa, and Chitwan, the Tarai, hills, and Inner Tarai, respectively. In 1964, this Act was replaced by the Land Reform Act. It aimed to maximize output by extending employment opportunities, reducing disorientation of existing social institutions, introducing compulsory saving schemes, and establishing ceilings on land ownership. The latter ceilings are 16.4 ha in the Tarai and Inner Tarai, 2.7 ha in the Kathmandu Valley, and 4.1 ha in the hill region. The Act also prescribed the maximum tenanted land as 2.7 ha in the Tarai and Inner Tarai, 0.5 ha in the Kathmandu Valley, and 1.0 ha in the hill region.

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- the land in the area included both fertile valley and terraced marginal land; and

- the area has a tropical climate and agricultural production techniques are similar to the most common Nepalese agricultural system.

METHODOLOGY

The study is based on primary and secondary data. All primary data was collected from the householders of Jaisithok. Personal data and data on landholding size, cropping patterns, and input and output from the different categories of land tenure was gathered using questionnaires and personal observation. To get a better idea of land tenure and the status of tenancy in the village, interviews were also conducted individually. To observe farming conditions and farm management systems, five farms from each category of land tenure were examined. Secondary data was collected from books, reports, journals, and information provided by local panchayat offices and other agencies.

Total input is the sum of three inputs: chemical fertilizer, labor, and HYV (high-yielding variety) seeds. Total output is the quantity grown in a year. The presentation of every farmer's input and output was not possible but the total value of inputs and outputs was calculated for every group. Then the input/output ratio was calculated by dividing total input by total output for all crops grown: paddy, wheat, maize, millet, oats, and potatoes. Finally, input and output values were compared across tenure groups in order to determine which group was best in terms of production per unit of input. Those values have been given in rupees and simple tabular analysis has been used for comparing the output values.

PRODUCTION AND ITS IMPACT ON DIFFERENT FARMS

Landowner's Own Farm

The sole right to the land belongs to the landowner, who has full authority over it and can cultivate and enjoy the output. A landowner has to pay taxes annually to the government.

In Jaisithok, there are 25 landowners. They produce paddy, wheat, maize, millet, oats, and potatoes. The average area used for paddy cultivation is 6.6 ropani (one ropani equals 1.13 acres) (Table 1). Maize covers the largest area and potatoes the smallest. Chemical fertilizer use is highest on potatoes, but paddy farming requires the most labor. HYV seeds of paddy and wheat are used by all 25 farmers.

The inputs of labor, chemical fertilizers, and HYV seeds are worth NRs.556, NRs.185, and NRs.20 per ropani per year respectively, and the yields total NRs.3,395. Therefore, each unit of input produces approximately four units of output.

Outputs of each crop, multiplied by their respective price values, constitute the value of the total product. Potatoes are the most popular commercial crop and they are grown in larger quantities than the other crops. The output ratio (approximately 1:12) is also high.

Table 1. Input/Output of Landowners' Land (NRs./Ropani)

Crop	Average Area	Labor	Chemical Fertilizer	HYV	Total Input	Total Output	Ratio (1:x)
Paddy	6.6	90	36.6	6.0	132.6	784.0	5.9
Wheat	4.4	90	27.5	13.6	131.1	148.0	1.3
Maize	13.7	28	35.4	-	63.4	248.0	3.9
Millet	1.8	110	33.2	-	143.2	199.5	1.4
Oats	1.6	124	14.0	-	138.0	116.0	1.3
Potatoes	1.6	124	38.0	-	162.0	1899.0	11.7
Total	29.7	566	184.7	19.6	770.3	3394.5	4.4

Source: Field Survey

Tenanted Farms

Originally, tenants were the peasants of landlords. A few decades ago, they received institutional security from the government. A tenant now covers all the costs of cultivation and the output is shared with the landowner. The 1957 Lands Act prohibited landowners from charging rents in excess of 50 percent of the total produce in cash or kind. Any landowner who decides to use the land for residential purposes has to compensate the tenant by giving 25 percent of the land's value.

Twenty-five tenants were sampled. The average area under tenancy in Jaisithok village is only 3.4 ropani with 1.92 under paddy. The lowest area is allotted to maize. Total output is NRs.2080 whereas total input is NRs.633. The input/output ratio is 1:3.28 (Table 2).

Table 2. Input/Output of the Tenant Tillers (NRs./Ropani)

Crop	Average Area	Labor	Chemical Fertilizer	HYV	Total Input	Total Output	Ratio (1:x)
Paddy	1.9	100	6.4	6.3	112.7	875	7.8
Wheat	0.5	100	25.3	16.7	142.0	180	1.3
Maize	0.2	140	76.2	-	216.2	200	0.9
Millet	0.3	-	61.0	-	61.0	150	2.5
Oats	0.4	-	-	-	-	-	-
Potatoes	0.2	40	61.0	-	101.0	675	6.7
Total	3.5	380	229.9	23.0	632.9	2080	3.3

Source: Field Survey

Usually, the value of a landowner's output per unit of input is a little higher than that of a tenant's output. In this case, the total paddy input by landowners is comparatively greater, yet output is less than that of tenancy tillers. The landowner's use of chemical fertilizer (12 kg per ropani) is more widespread than that of the tenancy tiller (2.9 kg per ropani) but this in itself does not necessarily increase productivity. The tenants here use more labor and HYV seeds per ropani and therefore produce more per unit input than the landowners.

Tenant's Farm

The sample group included 25 tenants who cultivate their own inherited land. There are two categories of ownership. There is a distinction between land on rent and rented land. The latter is not their own land.

The average size of tenant land under cultivation is about 28 ropanis per farmer (Table 3). Comparing the production of tenanted land and a tenant's own land per unit of input, the value of output is 3.28 in the former and 3.62 in the latter. This shows that production is higher on a tenant's own land than on tenanted land.

Table 3. Input/Output from a Tenant's Own Land (NRs./Ropani)

Crop	Average Area	Labor	Chemical Fertilizer	HYV	Total Input	Total Output	Ratio (1:x)
Paddy	5.5	108	15.5	-	123.5	336	2.7
Wheat	3.5	114	14.0	-	128.0	220	1.7
Maize	12.7	32	11.3	-	43.3	234	5.4
Millet	2.8	72	3.0	-	75.0	162	2.2
Oats	1.6	126	-	-	126.0	1000	7.9
Potatoes	2.0	100	6.1	-	106.1	225	2.1
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Total	28.1	552	49.9	-	601.9	2177	3.6

Source: Field Survey

Guthi Farm

A Guthi land tiller also cultivates two kinds of land: personal land, the crop from which is not shared, and land which belongs to religious institutions, the crop from which must be shared or used for puja (a religious ritual). These lands are commonly tenured by private individuals.

In cultivating their own land, Guthi landholders invest a total of NRs.566 and produce a total output of NRs.1,680. The output ratio is therefore 2.96. The productivity of this land is thus higher than a tenant's own land and tenanted land on the basis of the output ratio.

Table 4. Input/Output of Tenanted Guthi Land (NRs./Ropani)

Crop	Average Area	Labor	Chemical Fertilizer	HYV	Total Input	Total Output	Ratio (1:x)
Paddy	0.3	100	87.2	-	187.2	525	2.8
Wheat	1.2	100	15.2	-	115.2	200	1.7
Maize	0.7	100	12.5	-	112.5	320	2.8
Millet	0.1	100	-	-	100.0	495	5.0
Oats	0.8	-	-	-	-	-	-
Potatoes	0.2	40	6.1	-	46.1	140	3.0
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Total	3.3	440	121.0	-	561.0	1680	3.0

Guthi Land Tiller's Own Farm

To till their own land, Guthi landholders invest NRs.1,221. Labor and chemical fertilizers alone constitutes the input. Total output is NRs.4149 (Table 5). The labor employed per ropani is high-est for maize cultivation (NRs.240) and lowest in oats cultivation (NRs.140). Chemical fertilizer is used most often on the wheat crop.

The input/output ratio is 1:4.3. This rate is greater than for all the other tenancy cultivators and Guthi land cultivators. Only the landowners' ratio (1:4.4) is higher. Hence, production per unit of input on their own land was better than on tenanted land.

Table 5. Input/Output of a Guthi Tiller's Own Land (NRs./Ropani)

Crop	Average Area	Labor	Chemical Fertilizer	HYV	Total Input	Total Output	Ratio (1:x)
Paddy	4.0	200	15.3	-	215.3	534	2.5
Wheat	1.0	200	61.0	-	261.0	220	0.8
Maize	0.8	240	3.8	-	243.8	1320	5.4
Millet	0.6	140	-	-	140.0	225	1.6
Oats	0.8	100	-	-	100.0	1400	14.0
Potatoes	0.5	200	61.0	-	261.0	450	1.7
Total	7.7	1080	141.1	-	1221.1	4149	3.4

Source: Field Survey

Contract Farms

There are many instances of contract tillers cultivating landowners' land in Jaisithok village. Contract tillers do not have any land of their own; they cultivate other people's land on a crop-sharing basis, usually taking 50 percent of the harvest as payment. The costs of production are incurred by the cultivator.

Table 6. Input/Output of Land Tilled Under Contract (NRs./Ropani)

Crop	Average Area	Labor	Chemical Fertilizer	HYV	Total Input	Total Output	Ratio (1:x)
Paddy	9.5	140	8.0	65.0	213.0	644	3.0
Wheat	3.7	60	16.0	166.0	242.0	160	0.7
Maize	17.0	180	13.4	-	193.4	160	0.8
Millet	3.0	48	13.7	-	61.7	225	3.6
Oats	1.5	24	-	-	24.0	400	16.6
Potatoes	1.7	28	9.0	-	37.0	380	10.3
Total	36.4	480	60.1	231.0	761.1	1969	2.6

Source: Field Survey

The value of paddy production is NRs.644, which is the highest of all crops, the lowest being wheat and maize at NRs.160. However, maize covers the largest area (average 17 ropanis), and oats the smallest

(average 1.5 ropanis). No chemical fertilizer is used on the oats. It is used mostly on wheat. Total inputs valued at NRs.747, result in a total output of NRs.1969. The input/output ratio is 1:2.64, which is the lowest of all types of land cultivation (Table 6).

ANALYSIS OF DATA

The highest output was from farms cultivated by landowners, and by Guthi tillers who owned the produce. The lowest were from contract tillers and tillers of Guthi land whose produce was the property of a religious institution. Production is highest by farmers who do not have to share their crop. In some cases, tenancy tillers in the area share the cost of the inputs with the landowners. Then the ratio of chemical fertilizer to HYV is relatively high. Similarly, Guthi land tillers spend more on tenanted land than on their own land. The produce that is shared is deducted after calculating investment expenditure. In the case of contract farmers, all the chemical fertilizer that is used is directly purchased by the landowners. The contract tillers only contribute their labor. As payment, they receive a share of the crop. Less labor per ropani is put into tenanted farms, Guthi land, and contract farms, than into personal cultivation of owned land.

The output of tenants is slightly lower than that of landowners. The difference between the output of tenanted Guthi land tillers and contract tillers, or tenancy tilling, is much higher. This is because tenancy tilling is more likely to succeed than contract tilling. Another direct reason is that tenancy tillers use HYV seed.

METHOD OF CULTIVATION

Although methods of cultivation seem uniform throughout the village, landowning farmers have higher yields because they take great care of their land. Climate and soil conditions are also important in determining yields.

Landowning tillers never allow their land to lie fallow more than a month or two, and they raise at least two main crops and two subsidiary crops per year. Fallow periods are longer on land tilled by contract tillers because they do not farm until they have permission and the necessary inputs from the land's owners.

For the most part, cultivation is labor intensive. The few agricultural implements which are in use are hoes (for turning the earth where bullocks cannot be used), wooden mallets (fixed to long shafts for breaking up clods of earth), and sickle-like weeding irons (for weeding and cutting grass). Bullocks are used for ploughing. Once ploughing is completed by them, laborers break up the clods. Cultivation of paddy, wheat, and potatoes involves maximum effort on the part of the villagers as it has to be done meticulously by many laborers. The busiest time for them is from June till August because there is often a shortage of labor and the wage rates are highest.

Especially good care must be taken of the young rice plants. Planting takes a few weeks, and then the weeding is done by women whose fertility is thought to ensure the growth of healthy rice plants. The villagers watch carefully until the roots are strong, and in the later

stages, when the plants are heavy with grains, if there is a strong wind or rain the villagers support the plants to make them stand straight; if the head of the crop falls below the water level they will be destroyed.

After the harvest, the rice is threshed by men in the traditional way: beating small bundles of paddy plants on a stone. The chaff is separated from the grains by winnowing with a large fan. Nowadays, some landowning tillers with large holdings use threshing machines. Threshing by hand does not separate the paddy completely from the straw, and it often must be done twice. The advantage of the machines is that they thresh the paddy in one operation.

Use of Fertilizer

Traditionally, two kinds of manure are used. One is the waste deposited in the pit beneath the staircase on the ground floor of every house. All waste is disposed of in the pit including the ashes from the wood fires used for household cooking. Household members also urinate in the pit. The resulting fertilizer is said to be the best for the fields, and for vegetable cultivation in particular.

The other kind of manure is animal manure. Bedding of mainly grass and dried leaves is spread out for the animals, and after it has been trampled on and mixed with animal dung, it is used as fertilizer on the fields. For this reason, almost all households own animals (either buffaloes, goats, or sheep, or all three).

With the introduction of chemical fertilizers in the village, the use of compost manure is decreasing. The present practice is to use a mixture of one of the manures described with a chemical fertilizer. However, it was reported by the villagers that use of chemical fertilizers has hardened the soil, but when they were first used, yields did increase. Now, because of the hardened soil, which makes breaking the clods of earth difficult, and because of the irregular supply and inadequate quantities of chemical fertilizer, yields have been decreasing gradually. There must be a balanced mixture to prevent the soil from becoming hard. Also, it is necessary to maintain the use of manure because of the chemical fertilizers.

Labor System

The main source of labor in Jaisithok is family labor, but there are three other types. During the busiest months of the year, the increased demand for labor is met by exchange laborers, wage laborers and contract laborers.

Exchange Laborers: Family labor is exchanged on a reciprocal basis. Each year at planting and harvesting time, tillers from every category mobilize the labor of other households, in addition to family labor. Each household helps with another's crop, and receives help in return.

Wage Laborers: Some households hire labor at the current market rate. The people involved usually come down from higher pasture where paddy is not grown, to earn some extra money.

Contract Laborers: Fieldwork which needs to be accomplished within a given period of time is contracted to laborers in return for a specified sum of money. This is not common and tends to be practiced by landowners or Guthi land tillers, not by tenants.

Crop Rotation

The nearby Chakhola Valley has been appropriated for paddy cultivation by the members of Jaisithok Village. Being wet and low, it is much more fertile and productive than the higher ground.

After the paddy harvest, wheat or potatoes are grown. On terraced highlands, corn and millet are cultivated. Soybeans and pulses are sown beside the corn plants by a few landowning tillers. No tenant or contracted tiller reported doing this. In the valley, wheat is sown in December and harvested in May. Potatoes are planted January/February and harvested in May and June. The land is left fallow for two to three weeks, and in June/July, with the onset of the "small rains", the earth is turned and the fields are prepared for paddy cultivation. Paddy is harvested in October/November.

The corn is planted in April and May just before the rice, and is harvested in August and September. Millet is then planted in October and harvested in February. Some land is also used for potato production.

Some owners are experimenting with multiple cropping. Wheat is planted with oilseed and grown simultaneously. The results, farmers report, are satisfactory, but it is said that this practice is suitable only for relatively small plots of land.

This information reveals that the landowning tillers are bigger risk takers than the others. Their farm management is relatively better than that of the Guthi land tillers, contract tillers, and tenants.

CONDITION OF LAND

Table 7. Condition of Farm Land by Ownership (Nos. of Farms)

Tiller Category	Damage to Bunds	Tree Plantation Around Land	Disputes Over Production Share
Landowner	1 (20)	3 (60)	1 (20)
Tenant	3 (60)	- -	2 (40)
Guthi Land	1 (20)	1 (20)	1 (20)
Contractor	4 (80)	- -	- -
Total	9 (45)	4 (20)	4 (20)

Figures in parentheses are percentages.
Source: Field Survey

The general condition of the farms in the study area was good in comparison to neighboring farms. They have been classified under two land types: plain valley land and terraced land. Plain valley land is

frequently damaged by recurrent flooding during the monsoon. Similarly, soil erosion takes place on the terraced land due to improper maintenance. Another factor that contributes to poor quality land is the practice of cultivating marginal slopes.

The condition of the land varies according to ownership (Table 7: five farms from each ownership category were observed). Landowners try to keep their land in good condition whereas other categories of tiller have been less active in this regard.

Damage to Bunds on Farms

Forty-five percent of the observed farms had damaged bunds. Farms tilled by contractors and tenants were the worst in this respect. Three out of the five tenant farms had damaged bunds as did four out of five farms tilled by contractors. However, this damage occurred between five and 25 days before the study. Contractors reported that they had had no time to look after their farms because of business in urban centers--Lamidanda and Panchkhal--during the off-farm season. The tenants reported that they were anxious about the management of their farms, but due to a shortage of time, they had not been able to maintain them.

Farms owned by their tillers were maintained relatively well. Only one farm had damaged bunds; the damage had reportedly taken place just three days before observation.

Most of the plain valley farms were damaged due to their nearness to Chakhola. The bunds of terraced farms were damaged due to cultivation of marginal slopes. The damage on the pakho (dry upland) resulted from too little vegetation cover.

Disputes Over Crop Sharing and Farm Ownership

The guarantee of tenancy provided by the government has created conflict on some farms. In the study area, a legal conflict over farm ownership was observed. One conflict on a farm of an owner-tiller was the result of a disputed boundary. On a farm tilled by tenants, the dispute was about the ownership and sharing of produced crops. According to the tenants, landowners always expect a higher share than agreed. The threat of land sale by owners is common. They also guarantee tenancy on paper but in practice they have more to say at the panchayat level and in court. Tenants often do not have the time or the money to go to court ask for legal justice. Forty percent of the tenanted farmland was under dispute in the study area.

Tree Planting

Planting trees around the farm prevents soil erosion. The Panchayat Nursery Center usually distributes the necessary equipment for tree plantation in the study area free of cost. The recipients are usually panchayat board members and common farmers. This is the only conservation effort on the part of the farmers.

Only landowners planted trees around their farms. Sixty percent had done so, compared to only 20 percent of the Guthi land tillers. No tenant or contract tiller had bothered. The farmers have been encouraged

to plant trees by the panchayat and Panchayat Nursery Center. The recipients are still few, but the trend is noteworthy.

CONCLUSIONS

Labor plays a beneficial role in the production process of rural farming in Jaisithok village; the more labor, the more production. Cultivation is labor intensive. For agricultural purposes, farmers of every type usually practice exchange labor, wage labor, and contract labor.

The use of HYV seed does not significantly affect total production.

Use of chemical fertilizer is highest by tenants on their own land. However, chemical fertilizers have not increased productivity in the long run. Farmers report that the use of chemical fertilizer has started to harden the soil.

Landowners proved to be the best agriculturalists. They produce more and put in less. The ownership pattern is important. Farmers on their own land engage more labor than farmers on rented land. This may be due to the fact that these landlords do not have to share their crop with anybody. This conclusion is supported by the fact that for both Guthi and tenancy tillers, more is produced on their own land than on the Guthi and tenanted land.

The major crop in the valley is paddy which is rotated with wheat and potatoes. Maize is the most important crop on terraced land and is rotated with millet and oats.

Land is better managed by landowners. The land used by contractors is poorly maintained by comparison. Similarly, tenanted lands are not maintained properly.

RECOMMENDATIONS

Guthi land should be converted into Raikar land. This suggestion is not new. Dr. Chalise has recommended the abolition of Guthi tenure and observed that "there are religious and philanthropic institutions the world over but here such institutions have failed due to non-attachment to land" (Chalise, 1970, p. 41). Likewise, Mr. Zaman has remarked, "it is quite unnecessary to maintain the Guthi tenure to serve its objectives, i.e. to finance the observance of certain religious objectives. This could be done by direct budgetary grants to those who are entrusted to carry out religious ceremonies" (Zaman, 1973, p. 67).

HYV seed should be properly distributed among farmers through cooperatives in the village. Efforts should be made to encourage farmers to practice multiple cropping.

Extension of agricultural credit to the farmers is essential. They should be provided with fertilizers upon putting their crops up as security.

Institutional security should be provided to contract tillers.

Training in scientific land management should be provided to the farmers in their local areas and should be carried out in collaboration with local communities.

This study is not comprehensive in view of the sample size and analysis. Before any further steps are taken in land reform, HMG/N should conduct a study of the present land management system.

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