

Fragmentation of Landholding Size in Chitwan : An Analysis of Land Records from 1964 to 1983

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Introduction

Chitwan, one of the most highly developed districts of Nepal, extends from the Mahabharat range in the North to the Chure range in South. About three-fourth of its area is flat land, resettled by migrants from the other hilly districts of the kingdom. About one third of its area in the Northern boarder is peopled by Chepang tribe, an aboriginal people of Chitwan. The resettlement program was brought into operation by the Rapti Valley Multi-purpose Development Project under the Regional Development Act of 1956. The project was initially designed by the His Majesty's Government to meet the food scarcity of the Kathmandu valley and provide settlement to the landless and homeless people, mostly caused by occasional landslides and of floods of 1953.

According to the Act the Rapti valley Multi-purpose Development Project was responsible for the distribution of land to the landless and the homeless caused by the natural calamities listed above. Distribution categories of small farm (4-10 bighas), medium farm (11-25 bighas) and large farm (26-50 bighas) were established as guidelines.

The 1956 Act clearly states that under no circumstances could a farm bought under this project be rent out or sold in fragmented forms to others. Neither could the owners distribute it among his sons or donate it to others for charity. The Act also contained a provision that only one member of a family would be allowed to purchase a farm. In reality, this act was never enforced strictly. The lands were officially sold or distributed or rented out to others just like in other parts of Nepal.

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However, *Kansakar et al. (1974:33)* reports that lands were not distributed by the Rapti Valley Multi-purpose Development Project according to the criteria fixed above and the distribution of land was mostly characterized by malfeasance, nepotism and favoritism.

Commenting on the landholding size of the resettled areas, *Elder et al. (1974)* writes that the plots of land have become highly fragmented within the last 30 years because of the poverty of many of the peasants and the operation of laws of inheritance, which normally give all sons a share of the property.

This study was designed to analyze the land records of the two village panchayat wards in the Chitwan district with the primary objective of determining land distribution pattern among farm size groups and caste grouping in three different periods of time i.e. 1964, 1969 and 1983. With this problem in mind, these hypotheses were proposed to test their statistical significance. The hypotheses to be tested are:

1. Both the amount of land and the number of landowners are increasing over a period of time;
2. The average size of landholding is decreasing with the increasing Gini coefficient over a period of time;
3. Generally, the higher the caste people the higher the size of landholdings.

Methodology

The study which includes 1200 landowners was undertaken in the two village panchayat wards - *Patihani* and *Dhaddaghari*-Chitwan in the month of May in 1983. The land records were enumerated from the District Land Revenue Office, where land records are kept up-to-date alphabetically for each ward for the purpose of collecting land revenue each year from the landowners.

Land records were collected for three different periods of time: 1964 (when the land distribution program was officially closed), 1969 (when the land records were revised and up dated), and 1983 (when the Chitwan survey was undertaken). The Gini coefficient and the coefficient of variation were calculated to measure the distribution of land in the wards. All of the land records were in *bighas*, *katthas* and *dhurs*.¹

The land owner's full name and the amount of land listed under his or her name were recorded as correctly and clearly as possible, with occasional varification and crosschecking by the researcher himself in order to ensure that the data were recorded accurately. Land recorded in *dhurs* and *katthas* were converted to their nearest one-tenth of a *bigha* for comparative purposes in this study.

The farm size groups variable was operationalized on the basis of the size of the landholdings. All land owners owning less than 0.6 bigha of a land were categorized as nearlandless, those owning 0.6 - 1.5 bigha as marginal, those owning 1.5 to 4 bighas as small farm owner (*Singh 1982:14*) and those above 4 bighas as medium farm owner (*Nepal Rastra Bank, 1980:5*). Another variable caste was categorized according to the *Hindu* code of conduct: *Brahman*

(priests), *Kshetry* (Warrior people), *Vaisya* (trading people), and *Sudra* lower caste or untouchable). For the sake of convenience and comparison the aboriginal people of Chitwan such as the *Tharu*, *Mahato* Fisherun *Choudhari* and *Thakur*, who differ in their social patterns and economic characteristics from migrants were characterized as Native People.

With the purpose of avoiding systematic sampling bias, all the land records of the two wards one ward from each panchayat were collected. This concentrated approach is perhaps less generalizable but it permits one to get a better understanding of the communities as a whole. Moreover, the wards studied were more or less representative in Chitwan.

Limitation

This study faced some limitations. Because of these limitations, the data might have been biased. Thus, we like its reader to be cautious about its intervention. Some of the limitations confronted are presented below:

1. It is just possible that many landowners may be members of one family, which is not considered here;
2. A person may also have land in other wards. The records enumerated here are taken from two wards only. The land owned in other wards are not included here;
3. The records enumerated here do not differentiate between the irrigated and unirrigated land or homestead or field or it does not say anything about the location or productive potential of land, either.

Results and Discussion

As indicated in Table 1, the mean size of the landholdings has decreased over the time, while the total amount of land available and the number of landowners have increased over the same period of time. Thus, we accept the hypothesis that the amount of land and the number of landholders are increasing over a period of time. The total amount of land has increased by slightly more than twice, while the number of owners has increased by seven times in 19 years. As a result, the mean size of landholding has decreased from 3.1 in 1964 to 1.1 in 1983. Individually also, these wards show similar trends. The large change in the average size of landholdings from 1964 to 1969 could be attributed to the land reform program of Nepal, while the overall decrease of landholdings may be due to a variety of reasons, including population growth, in-migration to Chitwan from the hill regions and the prevalent law of inheritance in Nepalese societies.

As regards the distributions of land, Table 2 shows an overall increase of Gini coefficient over the three periods of time. The inequality occurred more after 1969. In other words, the concentration of land has occurred after this period because people started registering their lands in the names of their family members and relatives on paper but naturally owning and controlling by themselves. The enactment of the land reform act has caused the landowners to conceal their total landholding legally on paper. In individual wards also, the patterns of

Table 1
Amount of land, Number of owners and Mean size of landholding in wards, 1964-1983

Year, number and landownership		Patihani	Dhaddaghair	Comined Ward
Amount of land				
(in bighas)	1964	188.8	138.0	326.8
	1969	393.3	284.2	677.5
	1983	464.0	327.6	791.6
Number of woners				
	1964	59	46	105
	1969	171	203	374
	1783	387	364	751
Mean size of landholdings				
(in bighas)	1964	3.2	3.0	3.1
	1969	2.3	1.4	1.8
	1983	1.2	0.9	1.1

Table 2.
Gini coefficient and coefficient of variation for landownership by Wards, 1964--1983.

year	wards		
	Patihani	Dhaddaghari	Combined Wards
1964 Gini	0.394	0.360	0.380
C.V.	0.780	0.700	0.710
1969 Gini	0.404	0.428	0.410
C.V.	1.270	0.800	1.210
1983 Gini	0.559	0.532	0.550
C.V.	1.380	1.310	1.360

the Gini coefficient is similar. A similar trends is found in the distribution of the coefficient of variation, too. These data suggest to us that we accept the hypothesis that the Gini coefficient is increasing over a period of time.

Caste and Land Distribution

Table 3 shows the decreasing mean size of the landholdings over the period of time. In 1964 mean size of landholdings for the lower caste was approximately equal to that of the *Kshetry* caste and was higher than that of the *Vaisya* caste but in 1969 and 1983 their mean

size of landholdings went down to the bottom i.e. 0.7 bigha. The lower caste people are the greatest losers, while the remaining other castes owners have about one-third as much as they had in 1964. And *Vaisya* own the second lowest mean size of landholdings in these two periods of time. In general, the average landholdings decreased drastically between 1964 and 1969, with the smallest reductions among the native people and *Kshetry* caste. The result leads us to accept the hypothesis that the lower the caste people the greater the losers of land and the higher the caste the higher the size of landholdings. Still the native caste landowners own an average landholding of 1.4 bighas, which is the highest of all of the caste groups.

Table 3
Average Size of Landownership (in bighas) According to Caste by Year.

Caste	Year		
	1964	1969	1983
Lower caste	2.8	1.2	0.7
<i>Vaisya</i>	2.6	1.5	0.9
<i>Kshetry</i>	2.9	2.4	1.1
Brahman	3.3	1.7	1.0
Native people	3.4	3.2	1.4

Table 4 shows an increasing trend for the Gini coefficient for all of the castes. The same holds true for the coefficient of variation, too, and the highest coefficient of variation is found in *Vaisyas* being at 1.860. The greatest unequal distribution of landholdings is seen in the *Vaisya* caste, the second being the lower caste people. But, the extent of inequality observed in lower caste people is more during the period between 1969 and 1983 than that between 1964 to 1969. Unlike the *Vaisya* and the lower caste landowners, the *Kshetry* and the *Brahman* show slight increase in the Gini coefficient over the periods of time.

Table 4
Gini Coefficient and Coefficient of Variation by Caste 1964-1983

Year	Lower	<i>Vaisya</i>	<i>Kshetry</i>	Brahman	Native people
	Caste				
1964 Gini	0.432	0.254	0.384	0.375	0.384
C.V.	0.910	0.440	0.720	0.740	0.700
1969 Gini	0.429	0.480	0.540	0.524	0.539
C.V.	0.800	0.930	1.220	1.160	1.080
1993 Gini	0.590	0.605	0.558	0.522	0.481
C.V.	1.860	1.430	1.400	1.300	0.990

As is clear from the Table 5, the proportion of land owner increased with the increase in the status of caste. The *Brahman* caste owns almost 50 percent of the land in the wards, the lowest being the lower caste and native owners. Also, there appears to be a trend in which the proportion of land owned by *Brahman* and *Kshetry* over these three periods of time increases whereas that owned by other caste owners in 1983 decreases.

Table 5
Percentage Distribution of Landholdings According to Caste by years (Wards Combined)

Farm Size Group Caste	Year		
	1964	1969	1983
Lower caste	16.9	12.5	7.3
Vaisya	18.6	19.4	12.5
Kshetry	14.2	23.1	22.2
Brahman	10.5	32.5	50.8
Native people	39.8	12.5	7.6
Total	100.0	100.0	100.0
N	105	374	751

Compared to 1964, the percentage of nearlandless owners has increased tremendously and that of marginal landowners slightly in 1983 (see Table 6). Unlike these two groups, the percentage of small and medium farm owners has decreased in 1983. Also, it is interesting to note that the percentage of farm size groups decreases with the increase in the size of landholding in 1983. And, there appears to be no distinct patterns of data in other years.

Table 6
Percentage Distribution of Landownership by Farm Size Group by Year (Wards Combined N = 1230)

Farm Size Group	Year		
	1964	1969	1983
Near landless	4.7	28.3	50.2
Marginal	20.9	31.3	32.6
Small farm	50.5	31.0	13.7
Medium farm	23.0	9.0	3.5
Total	100.0	100.0	100.0
N	105	374	751

Table 7 indicates that the percentage of nearlandless owner has been increasing and that of small and medium landowners decreasing over the period of time for all caste groupings. Unlike in these farm size groups, the percentage of lower caste owners, who are

marginal has been decreasing, while that of the other caste owners has been increasing since 1964. The nearlandlessness is in general increasing and is found mostly in the lower caste and *Vaisya* landowners, who are rapidly becoming nearlandless over the period of time. Still higher percentage of *Kshetry* own medium size farm, and the native owners are the second highest. Compared to total number in 1964, the number of *Brahman* landholders has increased by more than 30 times in 1983, however, nearly 50 percent of them fall into the nearlandless category.

Table 7
Percentage Distribution of Landholders with Caste and Year by Farm Size Group
for Both Wards (N=1230)

Caste & year	Farm Size Group					Total	N
	Near landless	Marginal	Small	Medium			
Lower caste	1964	5.3	36.8	36.8	21.1	100	19
	1969	31.4	40.4	27.1	1.4	100	70
	1983	68.2	21.9	8.7	1.2	100	82
Vaisya	1964	—	12.5	83.3	4.2	100	24
	1969	31.1	32.2	28.9	7.8	100	90
	1983	54.5	28.2	13.1	2.1	100	99
Kshetry	1964	—	33.3	33.3	33.3	100	15
	1969	23.0	27.7	33.8	15.4	100	65
	1983	47.5	36.1	10.7	5.7	100	158
Brahman	1964	10.0	10.0	5.0	30.0	100	10
	1969	30.2	27.8	34.9	7.1	100	126
	1983	48.5	33.5	15.3	2.7	100	373
Native people	1964	8.1	16.2	43.2	32.4	100	37
	1969	13.0	34.4	21.7	30.8	100	23
	1983	28.3	43.6	23.0	5.1	100	39

Conclusion

The land fragmentation, together with the decreasing mean landholding size, is a serious, phenomena occurring in Chitwan. This situation is widespread in Nepal. This situation has been aggravated particularly by migration to Chitwan due to easy transportation, operation of law of inheritance and growing population pressure etc. Possibly, the first and foremost thing to do to check further fragmentation prevalent in Nepal would be to fix the lower limit of land ceiling by the government on agricultural land together with the opening of opportunities for small scale cottage industries in the rural area. The fixation of low land ceiling would not be an easy way to do but some thing should be done in this direction. In a sense, it would be an alleviation of the deteriorating conditions of the people in Chitwan.

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