

RESOURCES AND POPULATION AMONG THE GURUNGS: 1958 - 1980

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Introduction

In an essay of 1856 'On the Colonization of the Himalaya by Europeans', Brian Hodgson, stationed in Nepal from 1819 to 1843, mused as follows:

Located himself at an elevation he might find most conducive to his health, the colonist might, on the very verge of the lower region, effectually command the great resources for traffic in timber, drugs, dyes, hides, horns, ghee, and textile materials, not excluding silk, which that region affords; whilst, if he chose to locate himself further from the plains and devote himself to agriculture and sheep-breeding, he might make his election among endless sites in the central and higher regions of the Himalaya, of a place where these or those sorts of cereal flourished best, and where cattle and sheep could be reared, under circumstances of surface, vegetation, and temperature as various as the imagination can depict, but all more or less propitious; the steep slopes and abundant vegetation, rank but nutritious, of the central region, giving place, in the higher region, to a drier air, a more level surface, and a scantier and highly aromatic vegetation, peculiarly suited to sheep and goats, whose fleeces in that region would well repay the cost of transport to the most distant markets.

Not that I would in general hold out to the colonist the prospect of growing rich by the utmost use of the above indicated resources for the accumulation of wealth -- to which might, and certainly in due course would, be added those of the Trans-Himalayan commerce -- but would rather fix his attention, primarily, at least upon the *certain prospect of comfort*, of a full belly, a warm back, and a decent domicile, or, in other words, of food, clothes, and shelter for himself, his wife, and children, unfailing with the most ordinary prudence and toil, and such, as to quality and quantity, as would be a perfect god-send to the starving peasantry of Ireland and of the Scotch Highlands. *These* are the settlers I would, but without discouraging the others, primarily encourage by free grants for the first five years, and by a very light rent upon long and fixed leases thereafter, looking to compensation in the general prestige of their known forthcomingness on the spot, and assured that, with the actual backing upon occasions of political stress and difficulty of some fifty to one hundred thousand loyal hearts and stalwart bodies of Saxon mould, our empire in India might safely defy the world in arms against it. (Hodgson 1856/1874: II: 88-89)

The century or so since Hodgson's essay appeared has seen considerable demographic, economic and ecological change in Nepal to the extent that it is less a question of the Europeans colonizing the Himalayas than it is a question of the Nepalese themselves maintaining an adequate level of subsistence. A recent study of the West Central region has this to say:

Nepal in the mid-1970's is not just a very poor country that appears to be increasingly unable to provide adequately for its now rapidly growing population -- that would be a misleading over-simplification, and in some respects an understatement, of the problems that exist. The country

is now in a period of crisis, a crisis whose major components, over the next decade, will include serious overpopulation relative to employment opportunities, ecological collapse in the densely populated and highly vulnerable hill areas (where 30 percent of the cultivable land supports 60 percent of the country's rural population), and the elimination of certain important 'natural' resources (e.g. timber), both in the hills and in the plains. These will be associated with an increasing inability to pay for imported commodities, with growing food shortages, and consequently with the development of widespread unrest in both rural and urban areas, which together will threaten the viability of the prevailing political system and even Nepal's position as an independent state. (Blaikie et al. 1980: 13-14)

Other studies are comparably pessimistic (World Bank 1979; Macfarlane 1976; Tuladhar et al. 1977).

This paper examines some detailed data from three villages in the central Hills area for which a limited amount of historical material is at hand. For one village, Mohoriya, there are details from a visit in 1958 (Pignède 1966), a second visit in 1969 (Macfarlane 1976) and a third in 1980 (1). For a second village, Thak, there are data from 1969 (Macfarlane 1976) and 1980 (2). The third village is Khilang, represented by data only for 1980 (3). For the most part, this analysis is an attempt to compare some 1980 data with Macfarlane's study done in 1969 and subsequently published (Macfarlane 1976).

These three villages are in Kaski District, Gandaki Zone. The zone ranges from 600 m. in its deepest valley up to 3,500 m. on its highest foothills to the peaks. There is a population density of around 12 persons per cultivated hectare, ranging from 7 in the North to 14.3 in the West (Blaikie et al. 1977:22).

All three villages are in the Northern part; and at least Thak in 1969 was estimated to have a relatively prosperous man/cultivated land ratio of about 3.9 (4). The villages in question are principally settled by Gurungs (*tamumai*); and it is appropriate to give some background before turning to the analysis.

It has been observed that the proportion of those claiming 'Gurung' to be their mother tongue has dropped from 2 percent in 1952-54 to 1.7 percent in 1961 and to 1.5 percent in 1971 (Tuladhar et al. 1977: 22 Table 9), when they comprised around 170,000 of Nepal's total 11.5 million population (HMG 1975:II:2 Table 14). This is not necessarily an adequate measure of demographic changes, since the name 'Gurung' is still being adopted in some places and speakers of *tamu kwi* 'Tamu language' are in some areas dropping their mother tongue in favour of the national language. That having been said the Gurungs were placed in the category of 'Non-Enslavable Alcohol Drinkers' in the 1854 Legal Code (Höfer 1979: 45); and they have for long been one of the military tribes recruited consistently into the Gurkha Regiments, formerly having been praised by Prithwinarayan Shah in his *Dibya Upadesh* (Stiller 1968).

It would seem from accounts reported in the last century, as well as from their own lengthy versified myths (Strickland 1982a), that the Gurungs until fairly recently practised pastoralism with sheep, yaks and other animals, also engaging in some shifting cultivation of millet and buckwheat (Hooker 1855/1980:I: 160, 261; Macfarlane 1976: 27-28). There is interesting evidence for suggesting that the traditional religion of Gurung shamanic priests shares much with the beliefs and practices of other Tibetan-Burman language speakers of the Himalayas, and perhaps also with certain of the Austro-Asiatic language speakers of North and Middle India.

Whatever the complications of unravelling this aspect of the cultural history of the area, it seems clear that the Gurung

economy has gone through a transition from one in which pastoralism, shifting cultivation, hunting and gathering were major activities (5), to one in which the prevailing mode of exploitation of resources is that of terraced wet rice cultivation, with maize and millet as other prominent crops, and some animal husbandry. From a situation in which land is plentiful and labour the limiting factor on economic activity, it has become one in which the reverse would seem to be the case (Macfarlane 1976: 32-33).

The authors of a recent study comment that,

The transition has accelerated rather than reversed the tendency to ecological decline, as the clearance of forest for terraces combined with a continuing use of the reduced forest area for economic purposes have led to a vicious circle - forest clearance for terraces, use of forest for compost and fodder to maintain production causing greater erosion, which in turn destroys terraces, necessitating forest clearances for new terraces, and so on. This circle is of course accelerated by a growing population and a greater aggregate demand for arable land (Blaikie et al. 1980: 214).

This view has been echoed by Macfarlane in his study of Thak (Macfarlane 1976: 83). The following time-series data provide some illustration of the present state of affairs.

Basic Data Coverage

The principal data to be examined were collected by the author when, in December 1980, he spent one week in Thak and one in Mohoriya specifically for this purpose. The aim was to complete a census covering each household belonging *de jure* to the villages in question. This was to cover: (a) age, sex and

relationships of each person in a given household; (b) sources and amount of cash income; (c) educational attainment and literacy; (d) number of named rice, millet and maize fields; (e) seed:yield estimates for each crop for each field; (f) number and type of livestock owned; (g) details of fields damaged by landslides and the extent of production lost therefrom. Attempts were made to cover every household, though this in practice proved difficult in a few cases where families had left or were resident abroad and other villagers were unable to furnish confident details. While absolute accuracy is not claimed (no cross-checks or double-checks having been possible at the time), the data do on balance provide a fair guide to the orders of magnitude involved and are adequate for the present purpose, which is to contribute to the series of case studies made in Gurung villages over the past twenty-five years or so (Pignède 1966; Macfarlane 1976; Messerschmidt 1976 and elsewhere). Thus the data represent the selected respondent households only and no attempt is made to calculate estimates for a wider population (Casley and Lury 1981: 158-159).

The surveys were completed by the author alone using either Gurung or Nepali as the situation demanded. The standard Nepali volumetric measurements have been converted into metric weights following the conventions used by the Ministry of Economic Planning (Macfarlane 1976: xviii). Ages were calculated by reference to the 12-year cycle of years named after animals, familiar to those in the Tibetan and Chinese speaking world, which the Gurungs themselves use when necessary in a way described by Pignède in his outstanding chapters on local religion (Pignède 1966: part IV).

The unit of survey is the household, that is to say those who eat from the same hearth, sleep in the same house, and share the same inherited property undivided. Some problems arise with wealthy men who have earned sufficient in service abroad to

purchase a house in Pokhara and live there, even though not yet receiving their share in the family estate. For the purposes of the survey, these have been treated as part of the paternal household and not as distinct households in themselves, since the family lands and other property will not have been divided up (6).

Short Term Change Towards Impoverishment:

Land Holdings and Grain Income

Table 1: Change in Production of Unhusked Rice (Mean Average Kg. per Household)

	1958	% Change	1969	% Change	1980
Mohoriya	484 (94)	-33	324 (94)	-7.5	299 (69)
Thak			1400 (100)	-49.7	703 (93)
Khilang					1283 (37)

Source: 1958 and 1969 data (7). N = number in parentheses.

The first index to be examined is the change in production per household of unhusked rice as presented in Table I. Noting the drop of about one third in Mohoriya between 1957 and 1969, Macfarlane suggests that the causes might lie in weather variations, mistaken recordings, or a decline in land productivity through erosion and exhaustion (Ibid). The figures in Table I are consistent with Macfarlane's observation and suggest that purely contingent factors may not be the only ones required in accounting for the changes between 1969 and 1980. If longer term processes are at work then it is important to try to identify these.

Among the data collected were villagers' estimates of the amounts of grain income lost for each field afflicted by landslide damage. If these estimates are taken to refer just to the year 1980 -- and there may be a danger that some respondents lumped together the landslides of the previous year or two in their answers -- then in Mohoriya each household would on average expect to lose about 10 kg of unhusked rice per annum, while in Thak the figure rises to around 116 kg per household per annum. Assuming such rates of loss to be constant over the preceding years since the earlier survey dates, these mean averages more than account for the recorded drop in yields. While one can not go so far as to declare that erosion is the only cause for the remarkably sharp declines in yields, it is almost certainly a principal one; and it has considerable social implications.

One concomitant of the processes at work is the decline in the proportion of households with adequate rice supplies from their own farms. Macfarlane found 15 *muri* (750 kg) of unhusked rice to provide sufficient support for households in Thak (Ibid: 55). Compared with the situation in 1969 in Thak, where 63 percent of households were adequately provisioned with rice, that in 1980 shows a comparably large drop to about 34 percent, in line with the decline in overall yields. In Mohoriya, the situation has eased somewhat; but this is apparently because of an exodus of villagers for lands elsewhere, a matter to which discussion will return. Compared with these two villages, Khilang, represented by a certain deliberately selected subgroup (8), is almost as prosperous in these terms as Thak was in 1969. (See Fig. I:).

Although there are unfortunately no detailed figures for millet and maize yields in the earlier studies, the likelihood is that villagers are resorting more and more to these cereals.

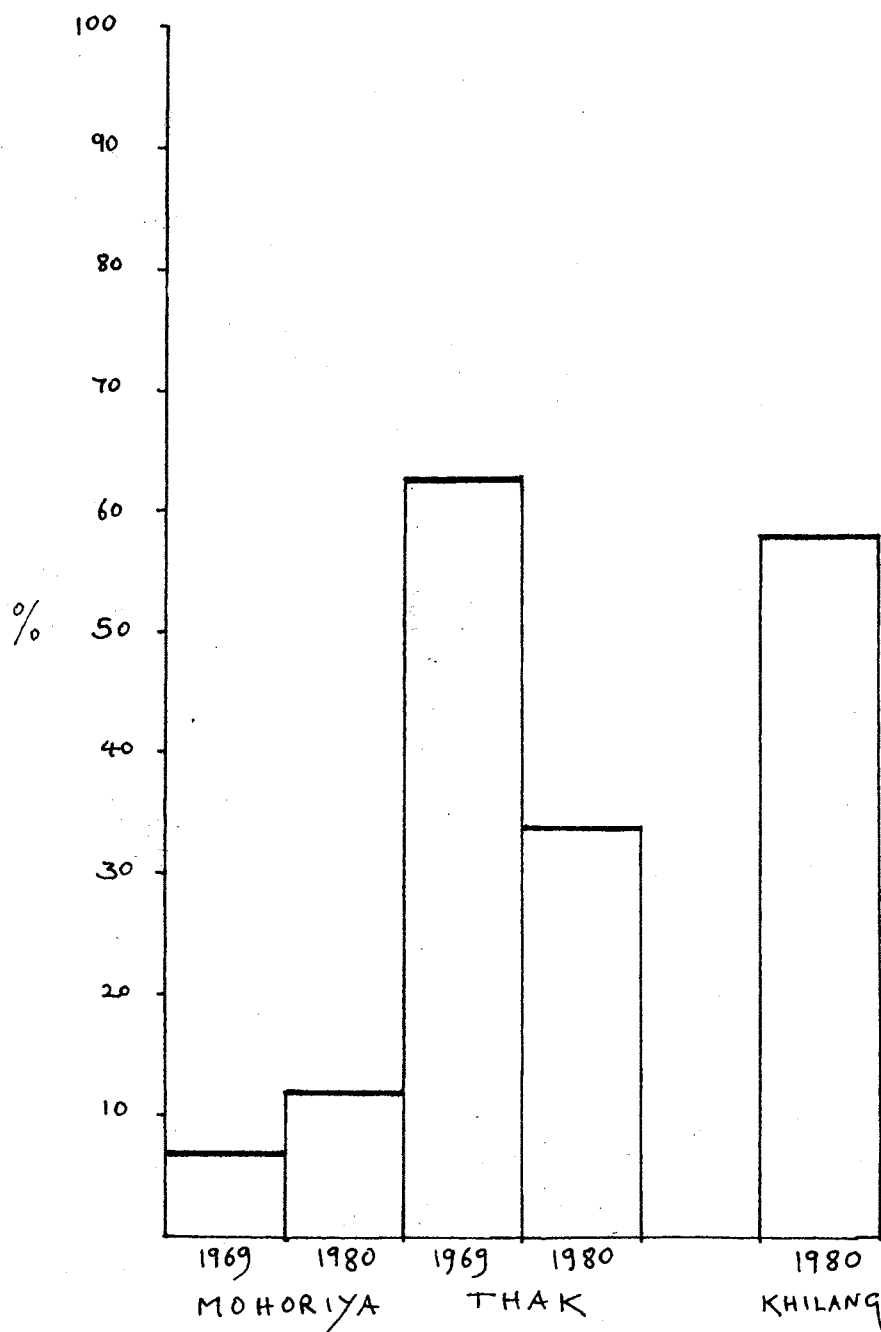


Fig. I *Changing proportion of households with more than 750 kg. unhusked rice income.*

(Note: sharecropped produce is treated as income to the field owner's household only for the 1980 data.)

Source: 1969 data: Macfavlore 1976: 55

Millet, especially, provides higher bulk yields per unit of seed than rice, even though it is not valued as food to so great a degree. In 1980 at least, the proportion of villagers with no land for millet (or maize, the two usually being intercropped), was smaller than that of those who had no rice land in each of the three villages (Table II) (9). Millet also has the virtue of being widely used for distillation of alcohol which sells for Rs 4-5 per bottle (at 1980 prices). This provides a little cash income for women who distil; and indeed in Khilang at least one household used its entire millet crop solely for this purpose, since its other grain supplies were sufficient for main requirements.

Table II: Proportion of Households without Rice Land (NRL) and Millet/Maize Land (NML) 1980

	NRL	NML
Mohoriya	40% (28/69)	7% (5/69)
Thak	18% (17/93)	11% (10/93)
Khilang	5% (2/37)	0% (0/37)

In this context, it is appropriate to raise the question of whether there has been any growing disparity in the distribution of wealth among the villagers over the period covered. Macfarlane enumerates several factors which argue for pressure towards an equalization of wealth. The following discussion considers each in turn.

The first factor of importance is the periodic labour shortage characteristic of Gurung agriculture during the monsoon months. Where labour recruitment was essential because of the

absence of many men working abroad, then as Macfarlane puts it, "Those families who were drawing money from abroad had to spend a large part of it on paying for their village lands to be cultivated" (Macfarlane 1976: 192). While this is doubtless true to an extent, the practices of share-cropping and also the practice in richer households of leaving some fields uncultivated (usually millet/maize plots), will have alleviated the pressure to equalization of monetary wealth. No detailed data are available to give quantitative support here, but peak period labour shortages may not be so central to processes of equalization in the particular way that Macfarlane implies.

Second, there is the absence of a cash crop. As noted, women distil millet wine as a way of bringing in cash; and in 1980 one poor but enterprising man from Siklis decided to exploit the price differential between that village and Khilang. He would buy ahead the wine produced in Khilang at Rs 4 per bottle and sell it in Siklis at Rs 5. Whether the resulting shortage of wine in Khilang leads to a rise in its price there has yet to be seen. Additionally, some men are keen to collect mountain bamboo regularly and to make large mats (*pyo*) which can be sold to itinerant traders periodically visiting the village. In Khilang, men could earn on average about Rs 290.00 per annum in this way. While the sums involved are minuscule compared to average military pay and pensions (aggregated average being about Rs 12,250 p.a.), nonetheless there is clearly some room for finding ways to balance the household budget. Moreover, as Macfarlane says, even where there is a relatively high cereal production, this does not lead to sale of produced surpluses: most is consumed within the village itself (Macfarlane 1976: 58). He states:

Those who have a large surplus of rice or other cereals cannot use this to further increase their economic lead; an abundance of land in the village, and no outside

market, means that there is little demand for a man's surplus. Hence surpluses are distributed or destroyed, in order to gain social or ritual power, rather than being sold in order to gain cash with which one may buy more land (Ibid: 192).

That there is little effort to reinvest wealth in order to create more productive assets has also been observed for the West-Central area as a whole (Blaikie et al. 1980: 252-253); and this, together with the lack of markets, is evidently a central factor inhibiting wealth differentiation nowadays. However, it must not be forgotten that Gurungs used to trade grain for salt with Tibetans, and that there are various references to trading for precious metals in the traditional tales of the shamanic priests. It is not that there has never been a market stimulus to make wealth; but the closing of the Tibetan border and the increasing need to seek employment abroad have perhaps reduced this variable from former times.

Be that as it may, a third factor adduced by Macfarlane consists in the multiple sources of income on which the Gurungs rely: not only arable farming, but military and other service abroad, and pastoralism (Macfarlane 1976: 194). While there is little doubt that military service acts as "a negative feed-back mechanism, automatically smoothing out wealth disparities", the inhibiting nature of livestock rearing may be questioned in this particular case. Thus the wealthiest man in Khilang was famed precisely for having built up his estate entirely through judicious handling of his sheep, goats, cattle and buffaloes, since he had (exceptionally) been excluded from inheriting his father's land. However, it is not clear how much weight can be given to what may be regarded now as an isolated instance, pastoralism being less a way of life today than a useful adjunct to farming in the higher villages. On the whole it remains true that there are various channels of economic mobility, as Macfarlane suggests,

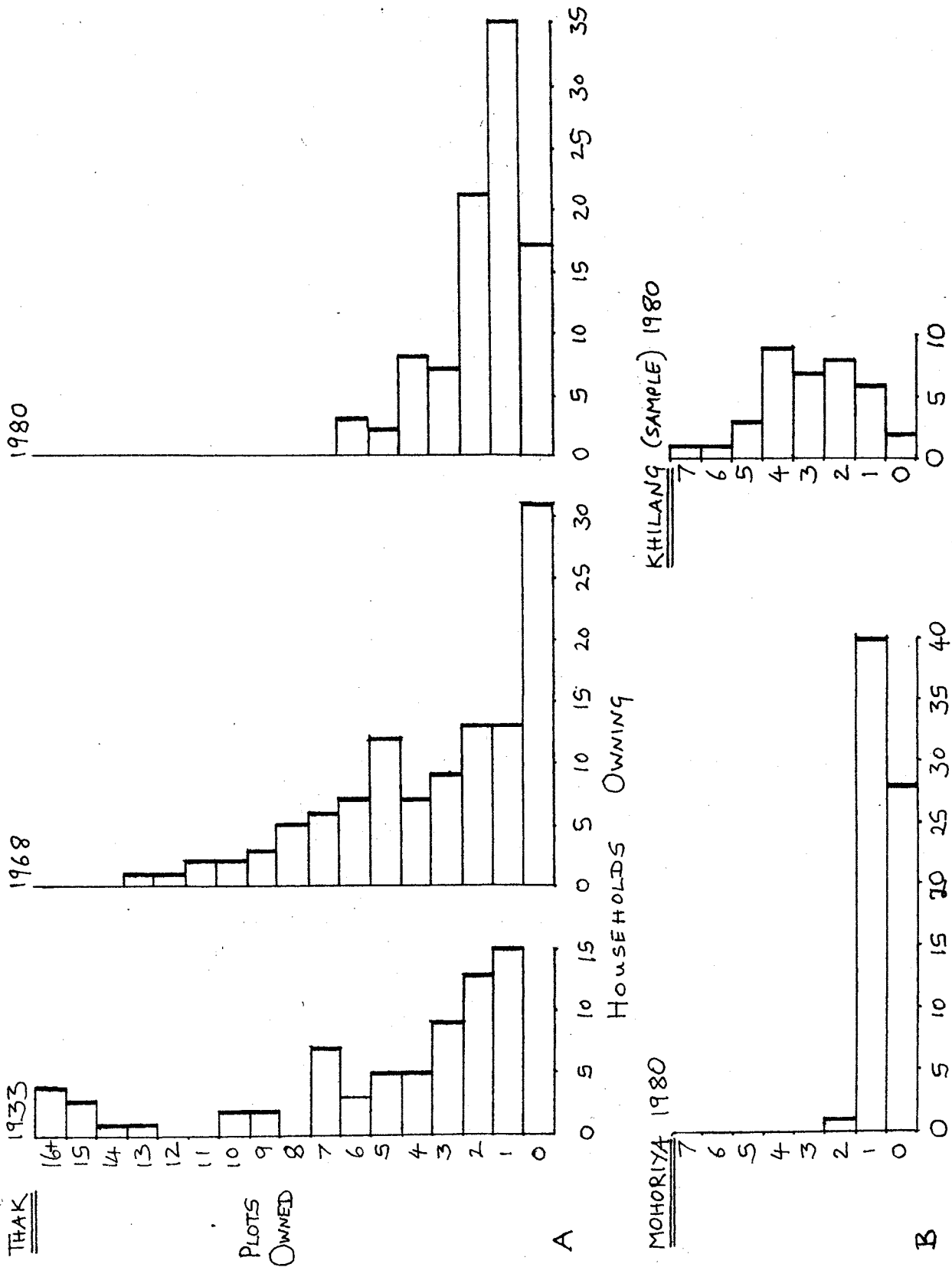


Fig. II Size of rice-holdings per household

Source: 1933 and 1968 data: Macfavlore 1976: 54 Fig 5.2

though quite how flexible the system will remain is open to further inquiry.

Apart from a general dislike of meanness and an 'ethic of distribution', Macfarlane also comments on the special importance of the ways in which wealth is devolved between the generations. Thus he observes:

The cumulative effect of partible inheritance is that, at each generation, the number of holdings will increase dramatically. Some families may be forced right off the landowning map, as occurred during our stay in Thak when a man from an illegitimate branch of a *carjat* lineage was forced to sell off his last piece of rice land and went to try to live off his buffaloes in the forest. Those forced out provide land for those with cash from the army. But the overall effect is likely to be a village where land is fairly evenly divided between a large number of peasant proprietors, all other things being equal (Ibid: 197).

In view of this, it is worth examining changes in the size of crop holdings over the past decade or so. Macfarlane gives details of the numbers of sample households with rice-land holdings of various sizes in Thak in 1933 and 1968 (Ibid: 54 Fig.5.2); and these are compared with the position in 1980 in Fig. II: A. If there has not been a marked amount of underrecording in the survey, then the data suggest that land holdings have indeed become increasingly fragmented and more evenly distributed, so continuing the earlier apparent trend. Fig. II: B compares the data from Mohoriya and Khilang, villages which seem to lie at opposite extremes of the spectrum between 'equality-in-poverty' and unequal differentiation of property holdings.

Although these data give some guide to fragmentation, they ignore the extent of millet/maize cultivation. Fig. III indicates

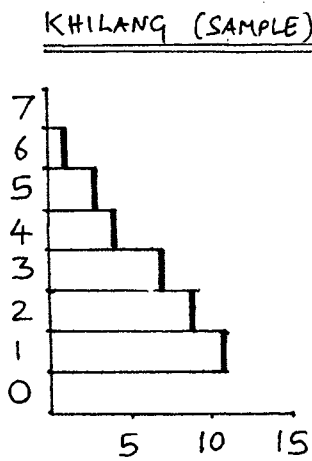
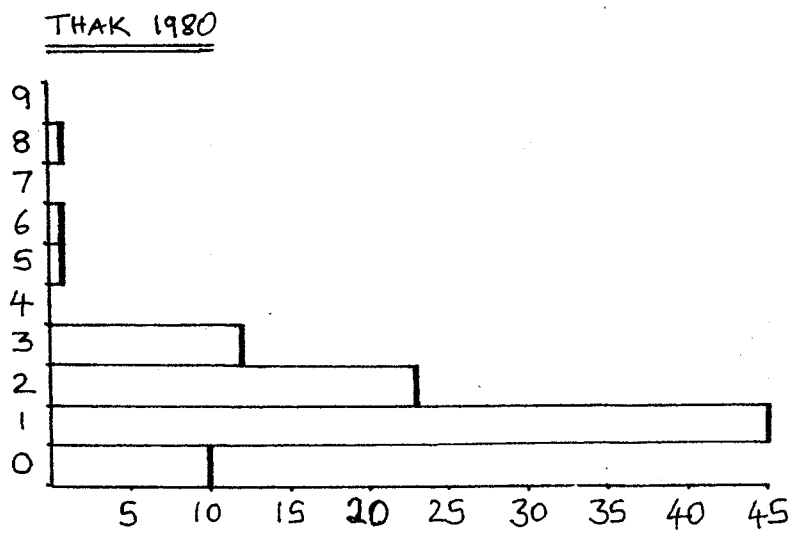
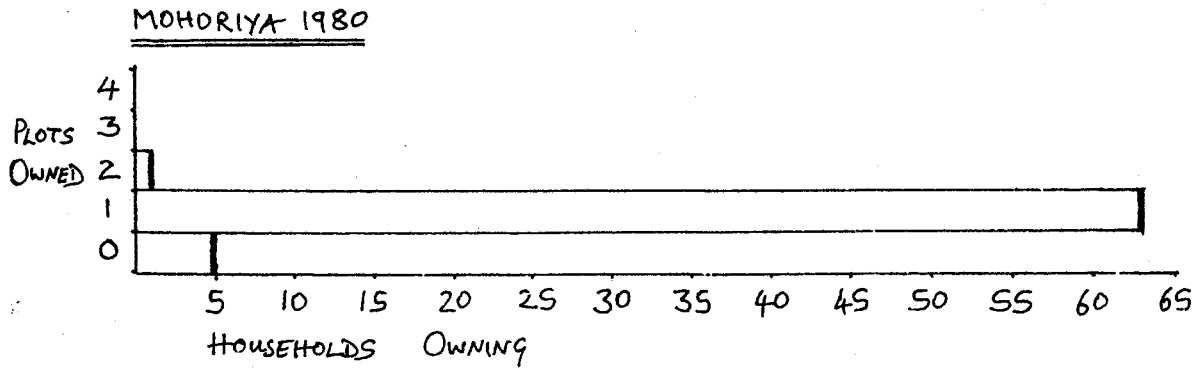


Fig. III Size of millet/maize holdings per household

the extent of millet holdings (assumed also to cover maize) in the three villages in 1980. The status of millet as a substitute for rice is perhaps indicated by comparing the place of these two crops in Mohoriya, where almost no households lack millet but rice is less extensively cropped; the same is true to a lesser extent in Thak. Finally, the extent of millet holdings exhibits the same general pattern as that of rice-holdings in the sense that relative fragmentation is greater in Mohoriya than in Thak, and in Thak than in Khilang.

It goes without saying that numbers of plots is not by any means a satisfactory index of relative inequality, since it ignores differences in the area and quality of the land in each case. Since accurate recordings were not made of these items, the nearest data collected comprise seed:yield ratios for individual plots, and the yields themselves. Without acreages, the seed-yield ratios are of little comparative use; and no data were gathered on the particular strains of rice grown in each village, another important gap. But as far as they go, the seed:yield ratios suggest that members of the Gurung subgroups termed *krohmai* or Nepali *car jat* and *pwēmai* or *sora jat*, despite a certain presumed difference in status, do not possess land of significantly distinct quality. However, they do argue for rather greater variability about the mean in Mohoriya than in Thak, and in Thak than in Khilang; while the mean is highest in Mohoriya and lowest in Khilang (10).

Inequality between the Gurung sub-groups has been the subject of considerable comment in the literature about the Gurungs in particular and about other peoples in Nepal in general. It does seem to be generally the case that the *car jat* are wealthier than the *sora jat*. A given sub-clan of the former group will maintain long-standing hereditary ties with a series of *sora jat* clans which are placed in a more or less

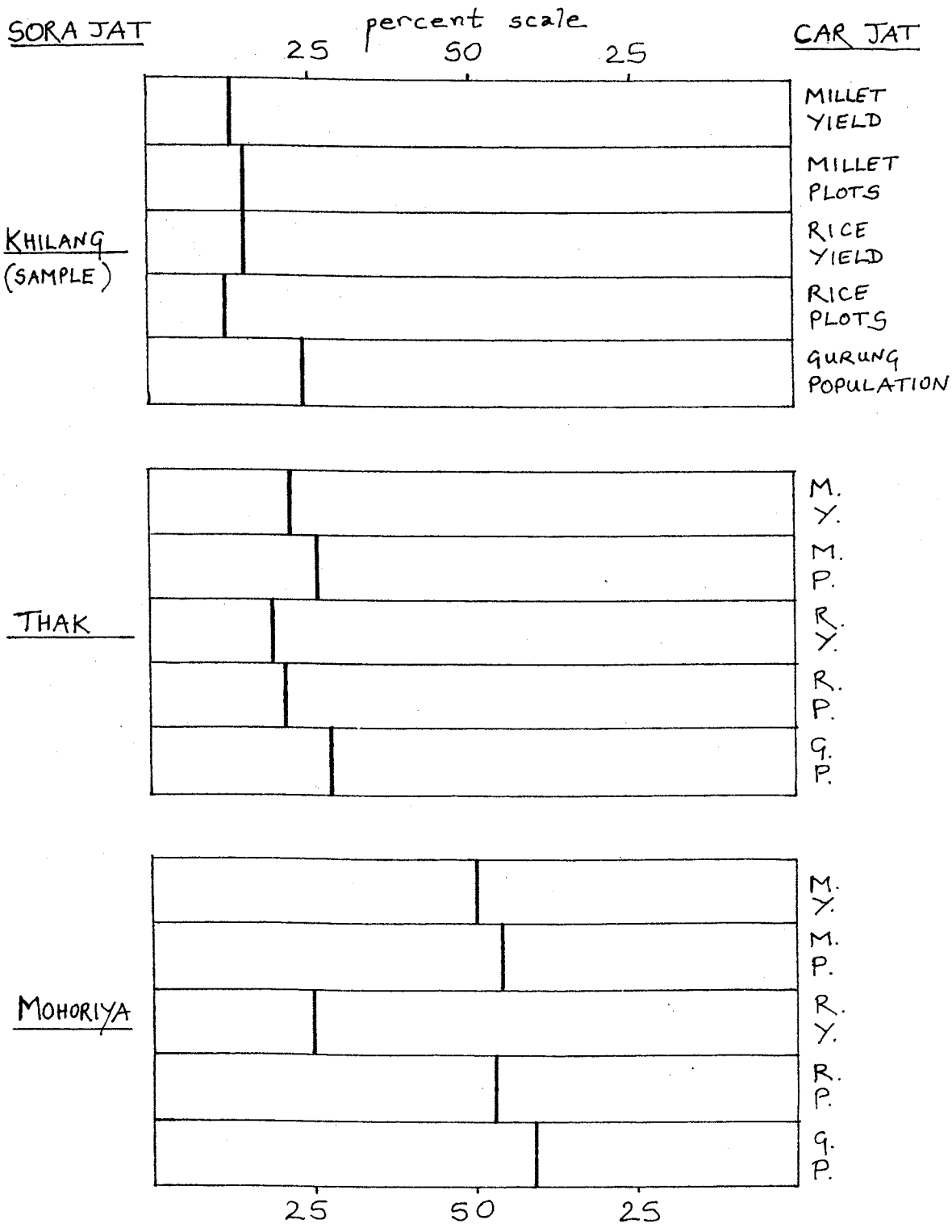


Fig. IV Distribution of plots and yields by Gurung sub-groups

subordinate relationship to their overlords. This relationship is, in Khilang and Siklis, termed *to*; and the economic data so far presented for Khilang provides a profile of one exemplary case, the *singgu temmai to*. Thus the data from all three villages, plotted by these groupings, provide a limited test for the contention that differences of wealth have been intensified over the past decade or so through the mechanisms of budgetary deficit, population pressure and fragmentation of estates to which Macfarlane refers in his predictions made on the basis of the 1969 data (Macfarlane 1976: 200).

As depicted in Fig. IV, the *car jat* in every case hold proportionately more plots and grain income than their place in the total Gurung population would lead one to expect on purely random grounds. But nowhere is the discrepancy very marked, the sole exception being that of Mohoriya where *car jat* rice as a percentage of aggregate rice yields works out at around 83 percent more than this group's standing in the local village population. As for whether there has been any notable change over the past decade or so, it may be observed that the *car jat* population of Thak according to land survey data from 1965 is within two percent of that in 1980; and their relative ownership of land is also close, within 5 percent of that suggested in terms of the numbers of plots presented for 1980 (11). The data are in fact variously interpretable. But it may be the case that there is a tendency to equalization and impoverishment, concomitant with fragmentation of land holdings; and this is perhaps supported by the data on household yields of rice in the villages undistinguished by subgroup (Fig. V).

It may well have been the case that the two groups used to diverge more in terms of landed wealth than they appear to do at present. If so, then this suggests that a growing equalization of wealth has the upper hand over differentiation between the rich and the poor. It is still, therefore, an open question

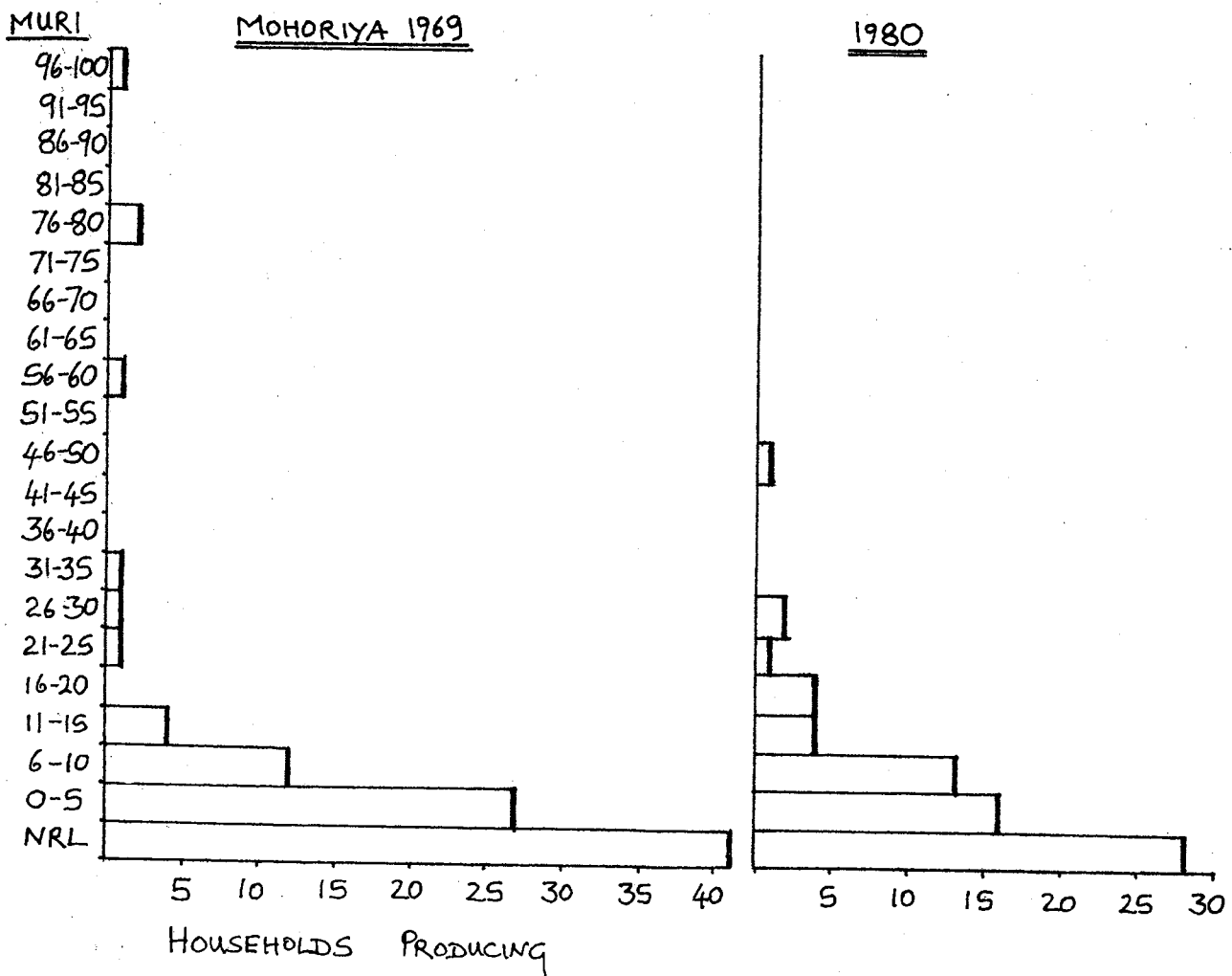


Fig. VA Unhusked rice production (muri) by households 1969-1980

(Note: NRL = No Rice Land; sharecropped produce is treated as production by the field owner's household only for the 1980 data.)

Source: 1969 data: Macfavlore 1976: 56 Fig. 5.3

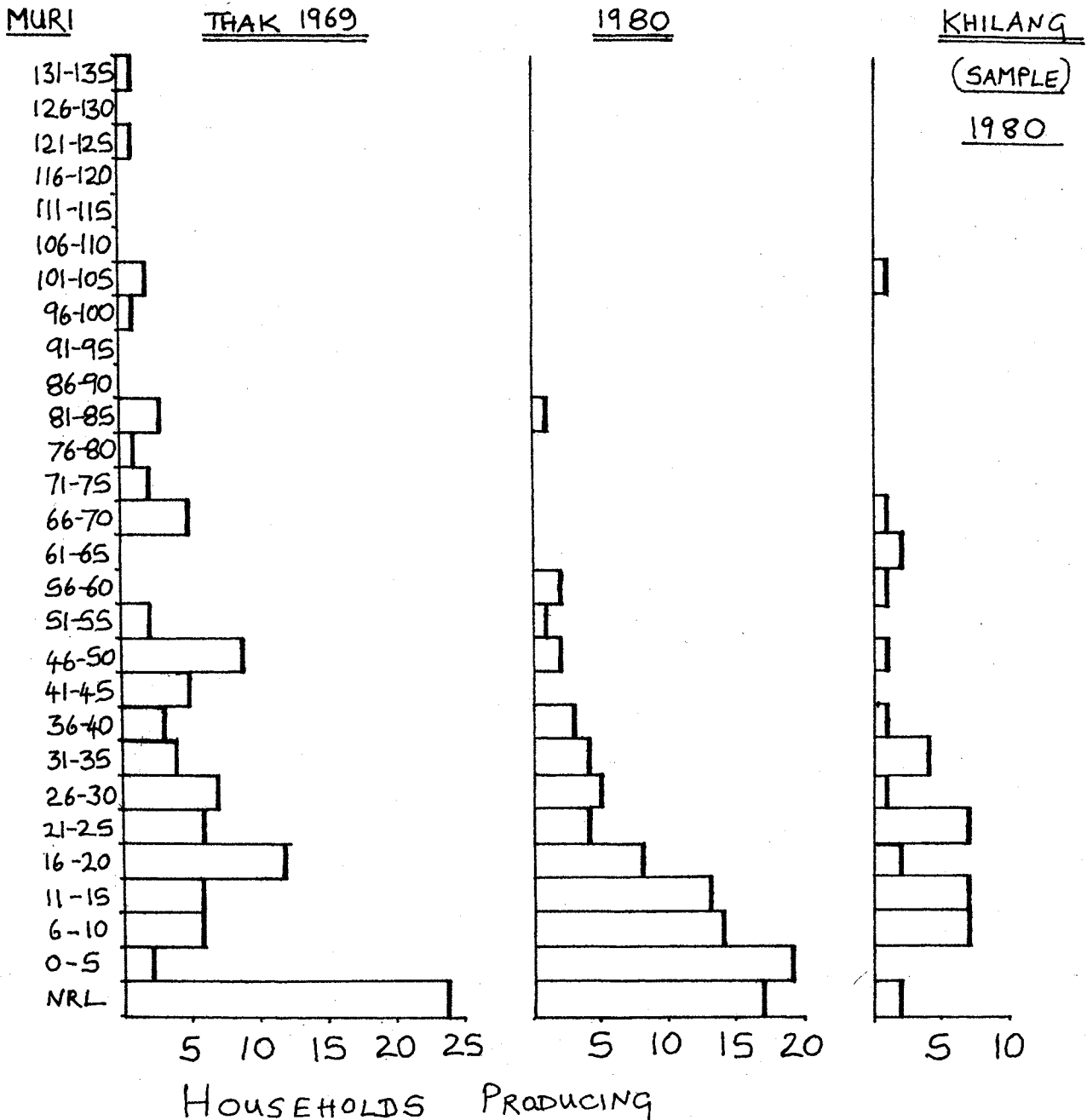


Fig. VB Unhusked rice production (muri) by households 1969-1980

(Note: NRL = No Rice Land; sharecropped produce is treated as production by the field owner's household only for the 1980 data./

Source: 1969 data: Macfavlore 1976: 56 Fig. 5.3

whether Macfarlane's hypothesis about the development of a rural, landless, workless and heavily indebted proletariat will come to be true quite so soon as he predicted, in the way in which he argued this to be possible:

When any landholding gets below a certain viable size, the owner is forced into debt and then into selling his capital. Holdings will tend to be concentrated into fewer and fewer hands, though perhaps let out to tenants at a high rent. Such renting of land has only just started in Thak. It awaits the development of a cash crop and market, a final depletion of communal resources, and a growing build-up of population before it becomes a major form of landholding. If it does happen, as it happened in preindustrial and industrializing England, and in India, there will be the same problem of a rural, landless, workless, heavily-indebted proletariat. It is doubtful whether such people will find room in a tiny industrial and bureaucratic sector. The problems India faces now, Nepal will face during the next two decades (Ibid: 200).

As it stands now, the situation may be compared with the following view of Clifford Geertz on developments in Java:

Under the pressure of increasing numbers and limited resources Javanese village society did not bifurcate, as did that of so many other 'under-developed' nations, into a group of large landlords and a group of oppressed nearserfs. Rather it maintained a comparatively high degree of social and economic homogeneity by dividing the economic pie into a steadily increasing number of minute pieces, a process to which I have referred elsewhere as 'shared poverty' (Geertz 1963: 97).

Rather than explain this pattern in terms of land ownership,

Geertz looks to both market elaboration and the expansion of the traditional system of labour relations, particularly share-cropping. While there is no detailed time-series data available for investigating the recent history of share-cropping in the villages studied, this is a practice which deserves more attention than it has received so far. In particular, it may be the case that share-cropping enables households that would otherwise be below the viable level of wealth to counter their budgetary deficits sufficiently to prevent them from falling into the downward spiral. For the landlord, share-cropping enables productive use of the land when his own limited labour resources are inadequate. As Geertz says,

The structure of land ownership is thus only an indifferent guide to the social pattern of agricultural exploitation, the specific form of which emerges only in the intricate institutional framework through which land and labour are actually brought together (Ibid: 99-100).

Livestock Holdings

One response to population pressure on existing finite cultivatable land is the turning towards exploitation of communal resources: the use of wild vegetables and tubers from the limited remaining forest areas, and the unrestricted grazing of livestock for milk and ghee production (Blaikie et al. 1980: 236). No data are available on the use of wild vegetables, though were certainly collected in Khilang and Siklis where certain types of tuber were highly valued foods; but it is possible to compare livestock holdings in the three villages (Table III).

While Macfarlane noted that there were twice as many buffalo in Thak in 1969 as in Mohoriya in 1958, the latter village

Table III: Livestock (all ages) per household (all groups)

		Mohoriya			Thak		Khilang
		1958	1969	1980	1969	1980	1980
<u>Buffalo</u>	Owners			52		56	27
	H'holds			69		93	37
	Mean	1.0	1.5	2.0	2.2	1.8	3.5
	Sum			140		170	128
<u>Cattle</u>	O			14		6	7
	H			69		93	37
	M	2.3	1.5	1.0	1.7	0.9	1.9
	S			70		85	73
<u>Oxen</u>	O			27		39	21
	H			69		93	37
	M	0.7	0.6	0.7	0.7	0.5	1.8
	S			48		51	68
<u>Goats</u>	O			19		27	2
	H			69		93	37
	M	1.5	1.9	1.3	3.0	1.8	1.5
	S			91		172	57
<u>Sheep</u>	O			1		4	4
	H			69		93	37
	M	-	-	0.1	-	0.4	4.4
	S			6		35	164

Source: 1958 and 1969 data: Macfarlane 1976: 90 Table 6.5.

possessing more cows, it appears clear from these figures that the two villages in 1980 share very similar proportions of livestock per household. But over the twenty or so years between Pignède's visit to Mohoriya and 1980, the decline of the cow there certainly seems to have been offset by the rise of the buffalo. This may be due in part to the greater meat and milk production of the latter; and it could perhaps be taken as an indication that, under recent agricultural conditions, the Gurungs of Mohoriya have turned more attention to their livestock. Khilang, sited somewhat to the North of Thak, displays more the character of a pastorally inclined society, particularly in the presence of the large number of sheep. In this village, as also in neighbouring Siklis, transhumance is still maintained as a way of life by a few men who go up into the highlands in spring and early summer, coming down again in the autumn to reach lowland pastures in the winter months before starting the cycle again (12). Recent pressure of sheep and other livestock on lands for pasture in winter has apparently led to a decline in the number of these animals kept in the region as a whole (13); and many men in the higher villages recall times not long ago when their parents possessed very substantial flocks of sheep. This is a reminder that the transition from pastoralist/ semi-mobile to sedentary society is still in progress; for the Gurungs are being squeezed by the twin pressures of their own population and that of the animals on which they have formerly depended.

Short Term Demographic Change: Distribution and Size of Households

Some limited economic indicators have been discussed above, but changes in certain demographic features of the villages can also be considered.

Between 1958 and 1969, the Gurung population in Mohoriya appears to have risen by 15 percent from 418 to 430 (Macfarlane 1976: 211-212). This hides a complex process of change, since in 1963 twelve Gurung and one Sunar households left the village to settle in the Terai, where fresh lands were becoming available. By 1980, the Gurung population of this village was some 30 percent lower than at the time of the 1969 survey, numbering 297 according to the data collected. Asked about particular houses, villagers there stated that 11 families had departed for Chitwan in the Terai (one actually returning to Mohoriya disappointed), 6 had gone elsewhere (for example, to Pokhara), and 2 had died out with no issue. Since these statements apparently include the Gurungs who left in 1963, it is doubtful that the extra six losses since 1969 can alone account for the decline in population; and it is likely that a certain number of emigrating households remain unaccounted for. This view is supported by the 'waisting' of the 31-33 years age-group in the pyramid for 1980 compared with earlier patterns (Fig. VI).

The state of house building in Mohoriya is also complicated. Since 1958, there appears to have been the disappearance through demolition, decay or accidental misrecording, of some 24 habitations. These have been replaced by 14, giving a net loss on the 1958 total 98 of only 10. The problems of interpreting these data are considerable. Taken together with the material on land holdings and yields, however, they add up to a picture suggesting that the village economy is worsening more slowly than in the period before 1969. There has been a (perhaps temporary) easing of the situation, apparently brought about by the exodus of villagers in search of better pastures elsewhere.

For Thak, the results of the census are presented in Table IV and compared with the data from 1969. While the *de jure* Gurung population increased by only 6 percent over the intervening period, the overall population of the village area covered

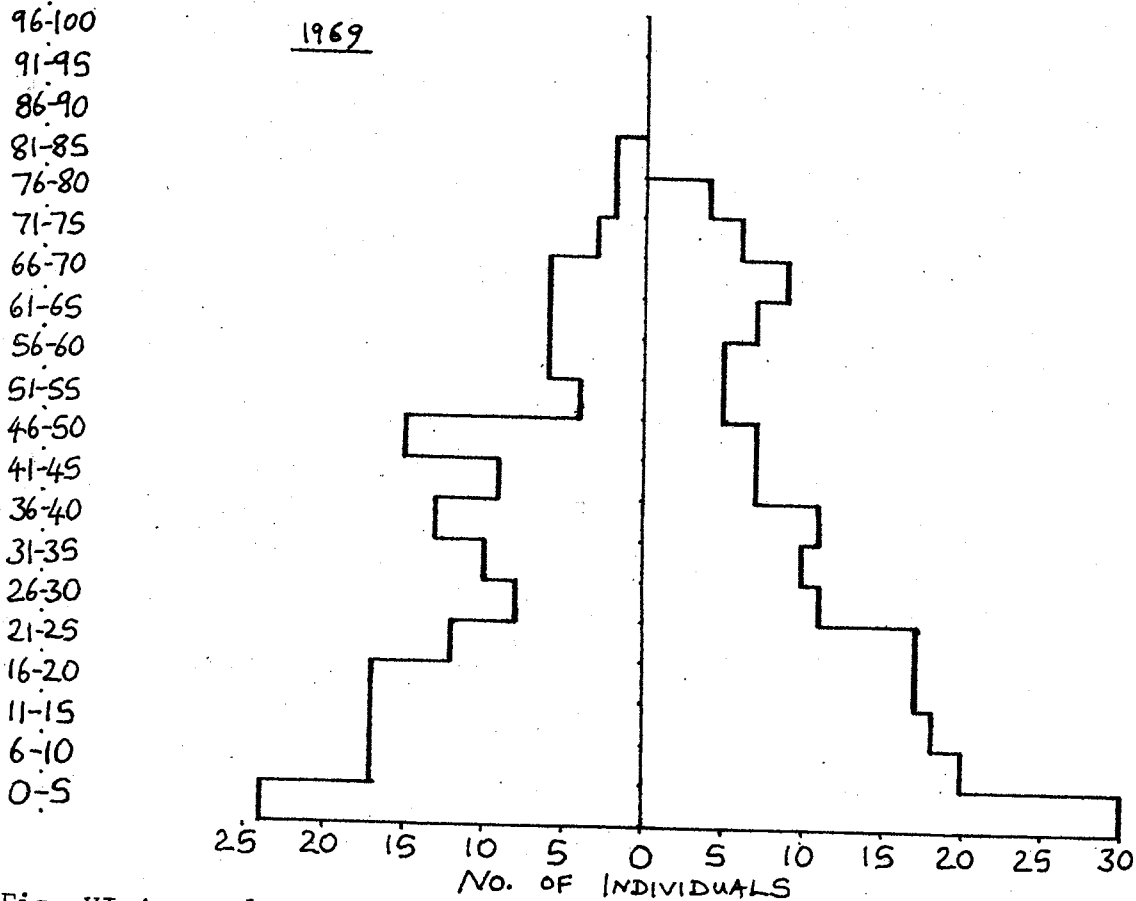
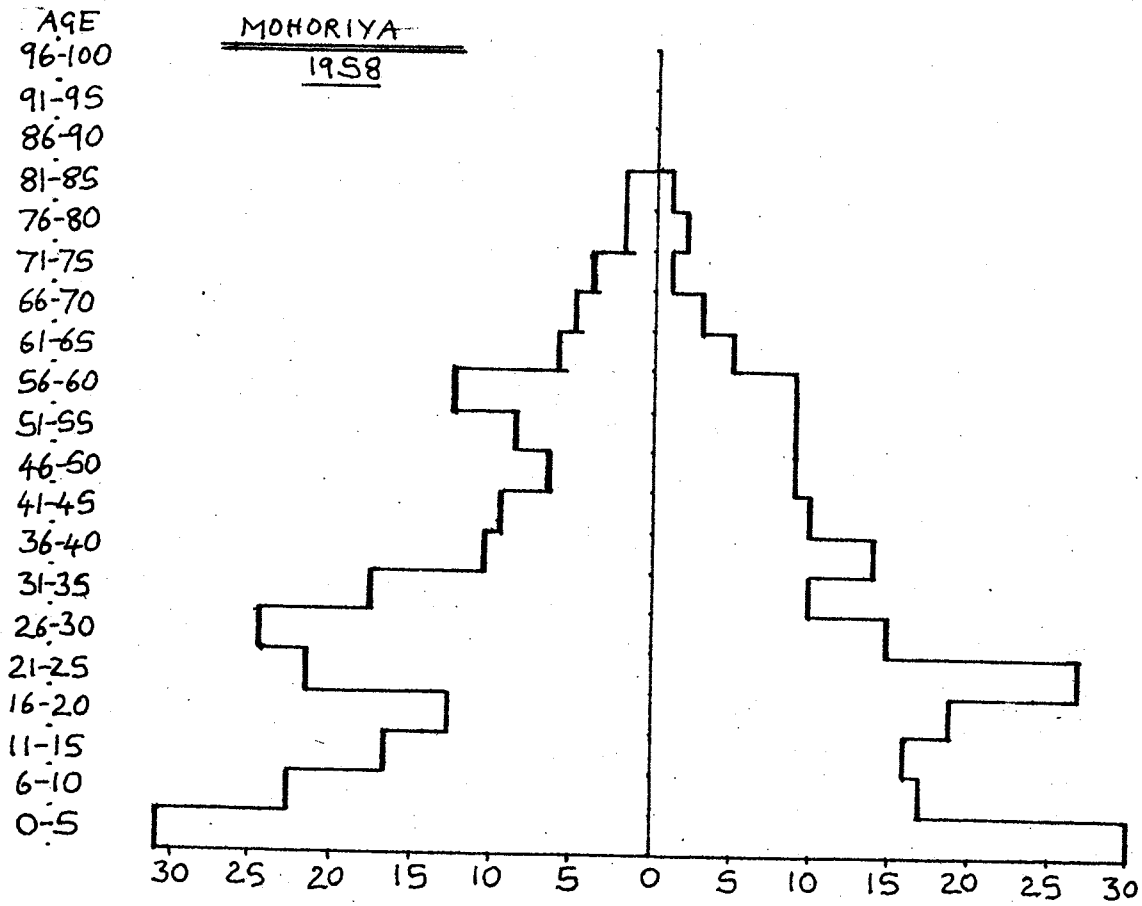


Fig. VI Age and Sex Structure: Gurungs of Mohoriya (1958-1969-1980) and Khilang
 Source: 1958 and 1969 data: Macfavlore 1976: 283 Fig. 15.1
 (Note: Khilang Gurungs numbered 577 but ages could be recorded for only 540.)

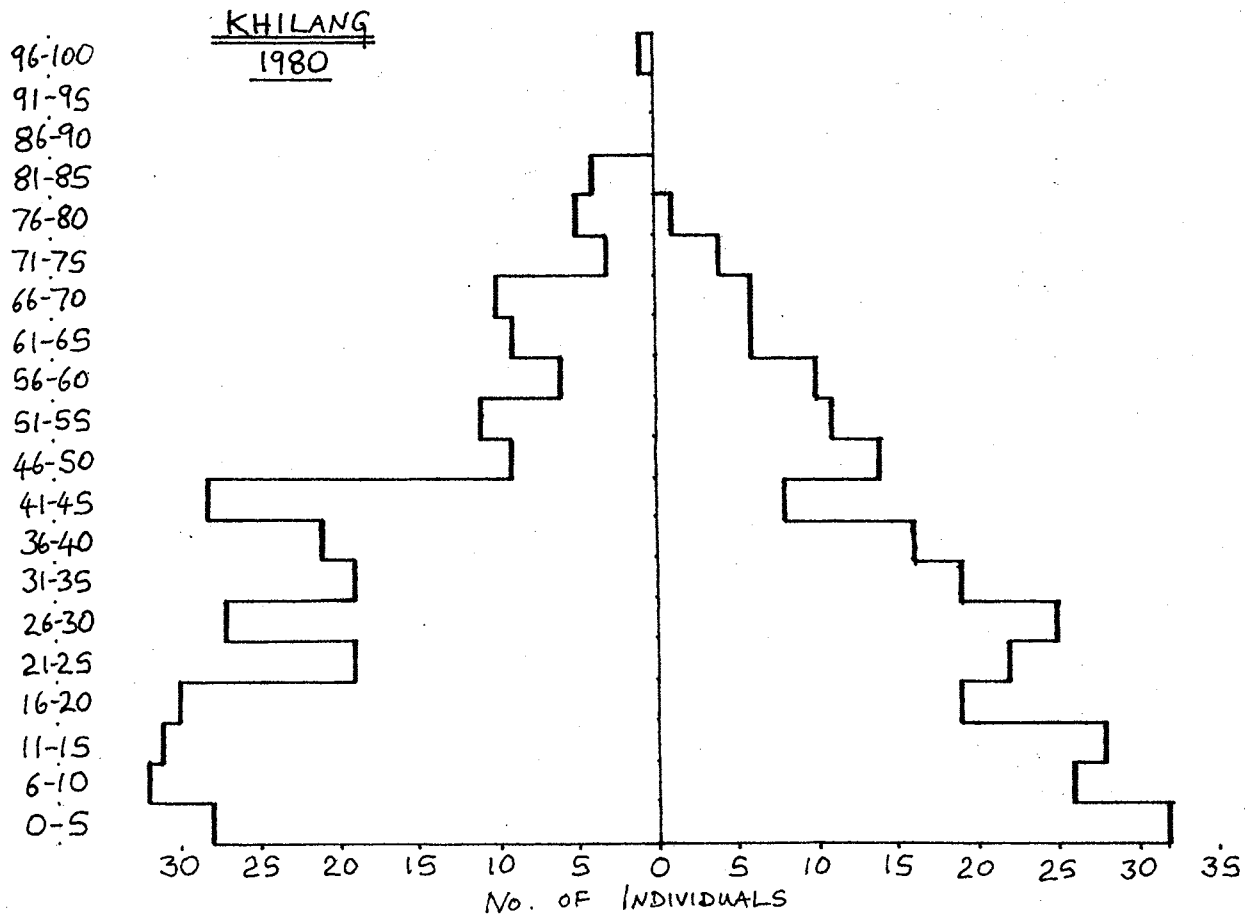
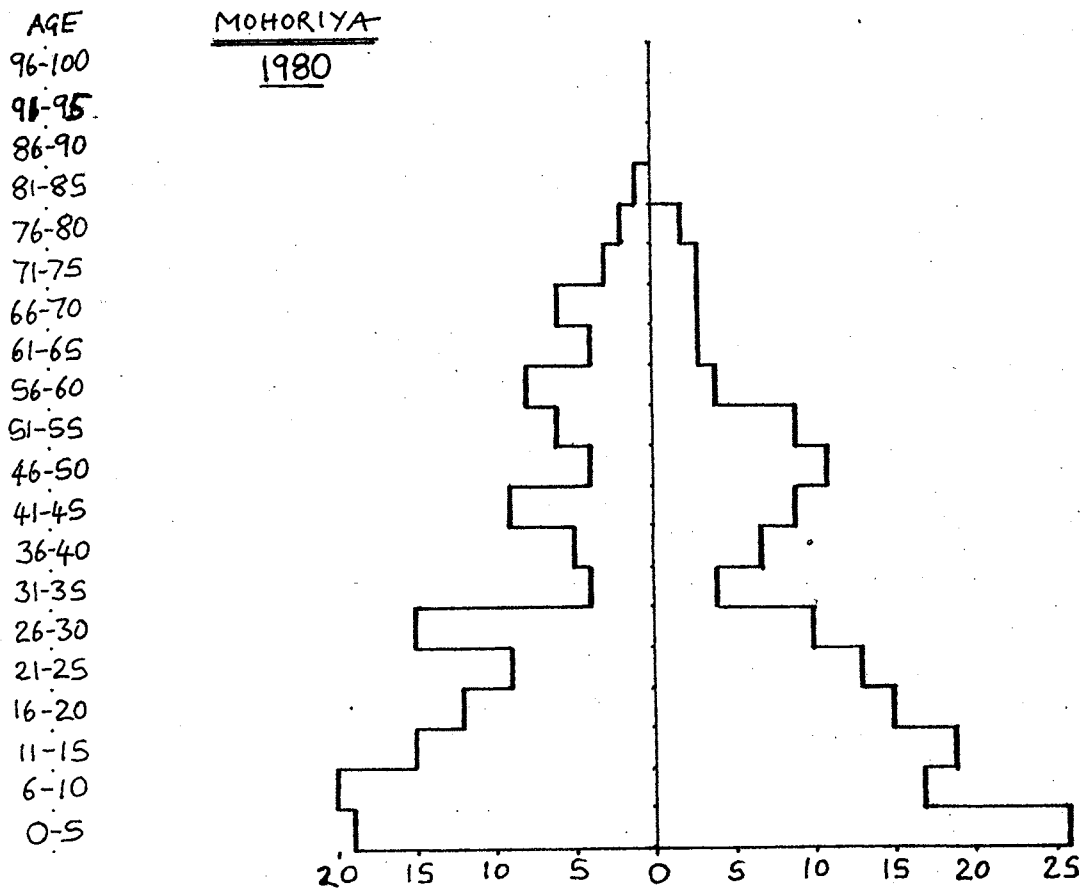


Fig. VI Age and Sex Structure: Gurungs of Mohoriya (1958-1969-1980) and Khilang
Source: 1958 and 1969 data: Macfavlore 1976: 283 Fig. 15.1

(Note: Khilang Gurungs numbered 577 but ages could be recorded for only 540.)

actually decreased by 4 percent. This is apparently because: (a) the Tamang families left or died out; (b) one Magar family moved down to another part of Thak beyond the area surveyed by Macfarlane; and (c) the lower castes have lost some four

Table IV: Households & Population in Thak: 1969-1980
(Sample Area Only)

	1969		1980	
	Households	Persons	Households	Persons
Gurung	77	386	76	410
Blacksmith	12	61	11	45
Tailor	6	38	3	33
Tamang	3	26	-	-
Magar	2	17	1	8
Brahmin	-	-	2	9
Total	100	528	93	505

Source: 1969 data: Macfarlane 1976: 15.

households, for reasons which are still unclear but are probably connected with their relatively acute poverty compared to other village groups; finally (d) one Gurung household was unaccounted for.

Concentrating on the Gurung population, it is likely that some underrecording has led to a surprisingly low rate of population increase (0.5 percent p.a.) in a land where the figure would be expected to lie around 2.5 percent per annum (Tuladhar et al. 1977: 48), or even higher. Macfarlane suggests a natural rate of growth of just over 1 percent p.a. for Mohoriya; and overall, the impression is that the Gurungs are increasing less

rapidly than the population of Nepal as a whole (14). If the 1980 data do contain an element of underrecording -- and it is difficult to keep track of all births among the Gurung families resident in Hong Kong and India during service -- yet they may illustrate a rate of growth which is consistent with some other aspects of the Gurung demographic pattern. Before passing on to these, it is appropriate to consider apparent change in household size, since the number of Gurung households in Thak has remained roughly constant since 1969.

Macfarlane notes for Thak that the wealthier *car jat* had mean average household size of 5.01, while the *sora jat* compared with 4.92. Though this is not a marked difference (and probably not statistically significant), he is led to argue as follows:

A relatively large estate appears to hold sons and daughters together longer, perhaps because their labour is more valuable. We may therefore expect that as estates are increasingly subdivided in the next few years, household units will shrink in size. It is possible that this will continue a process which has been in operation over the last 30 years as population has pressed on land resources. It does not appear in the comparison between the 1969 and 1958 censuses for Mohoriya because considerable emigration from the village in the intervening years kept the total population static and momentarily halted subdivision of land (Ibid: 333).

While it has not yet been possible to process the detailed 1980 data on household composition, some guide is found in the mean average sizes recorded. Among both Gurung sub-groups of Mohoriya this works out as 5.5, while in Thak the *car jathave* 5.4 and the *sora jat* 5.6 persons per household. Contrary to Macfarlane's prediction, there appears to have been an increase of the kind to be explained for instance by the long-term consequences of

improved health on the age structure of households. Additionally, the sustained levels of employment abroad will have alleviated the population to resources pressure in practice (since the differential between *de jure* and *de facto* presence is so substantial). It will also perhaps have delayed the customary splitting up of estates through inheritance *pre mortem*. Moreover, the importance of cash income from employment abroad may well reduce the role of on-farm labour requirements to be satisfied by the owner's family labour resources; hence even where land holdings are subdivided one would not necessarily expect household size to shrink purely in response to this: too many other factors come into play.

Age and Sex Structure

Returning to other aspects of the Gurung demographic pattern (while recognising this as the tip of a large statistical ice-berg), it is useful to examine the age and sex structure of the three villages (Figs. VI & VII). It will be observed that in many developing countries 50 percent or more of the population may be under the age of 20, while more industrialized countries show between 20 percent and 30 percent proportions under this age. Macfarlane points out that the Gurungs fall almost exactly mid-way between these two poles (Ibid: 282). It is interesting to note that the Gurungs of Mohoriya and Thak appear to have a greater proportion of those under 20 years in 1980 than in 1969, and (for Mohoriya) in 1969 than in 1958 (Table V).

Table V: Proportion under 20 years old

	Nepal	Kaski	Mohoriya	Thak	Khilang
1958			40.0%		
1969	50.0%	48.8%	45.5%	39.6%	
1980			48.1%	43.2%	39.1%

NB: Figures for the 3 villages refer to Gurungs only. Source of 1958 & 1969 data: Macfarlane 1976: 282-283 & Fig. 15.1.

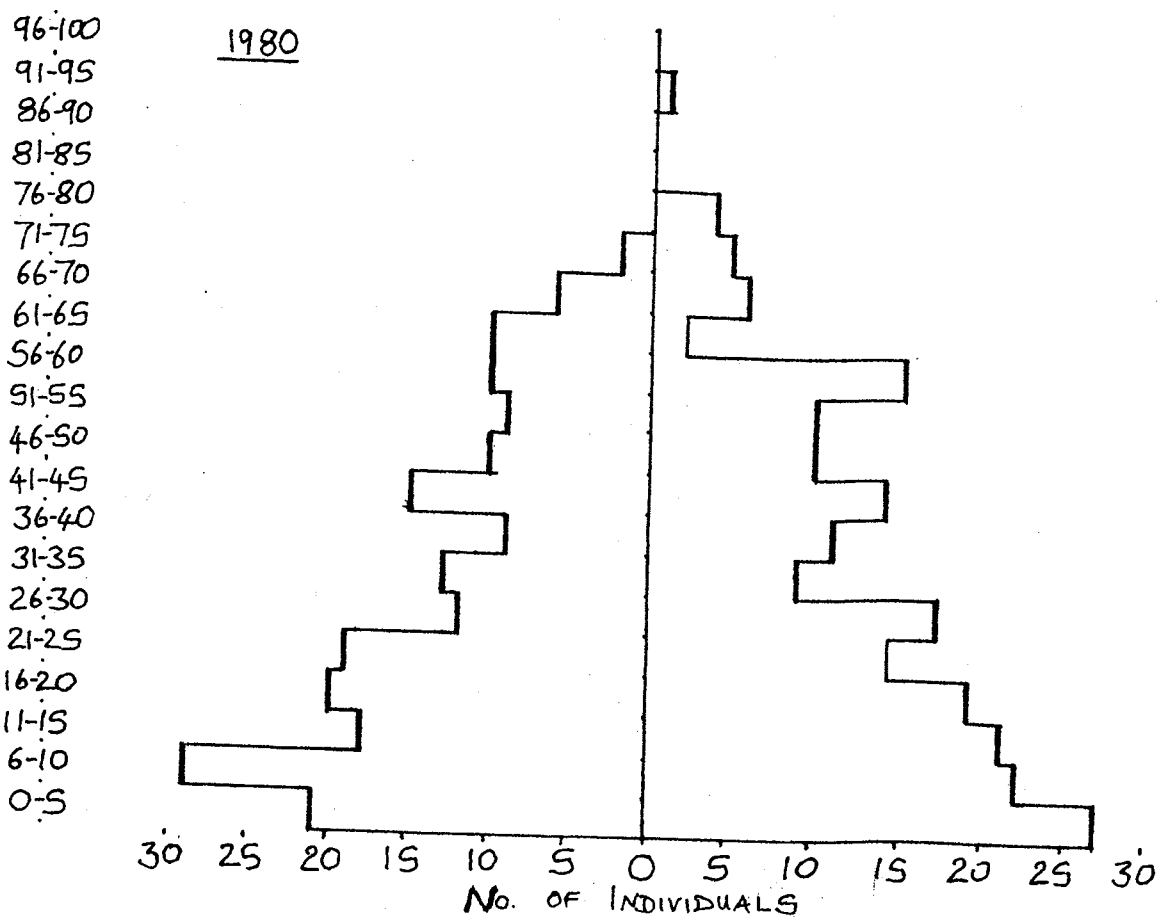
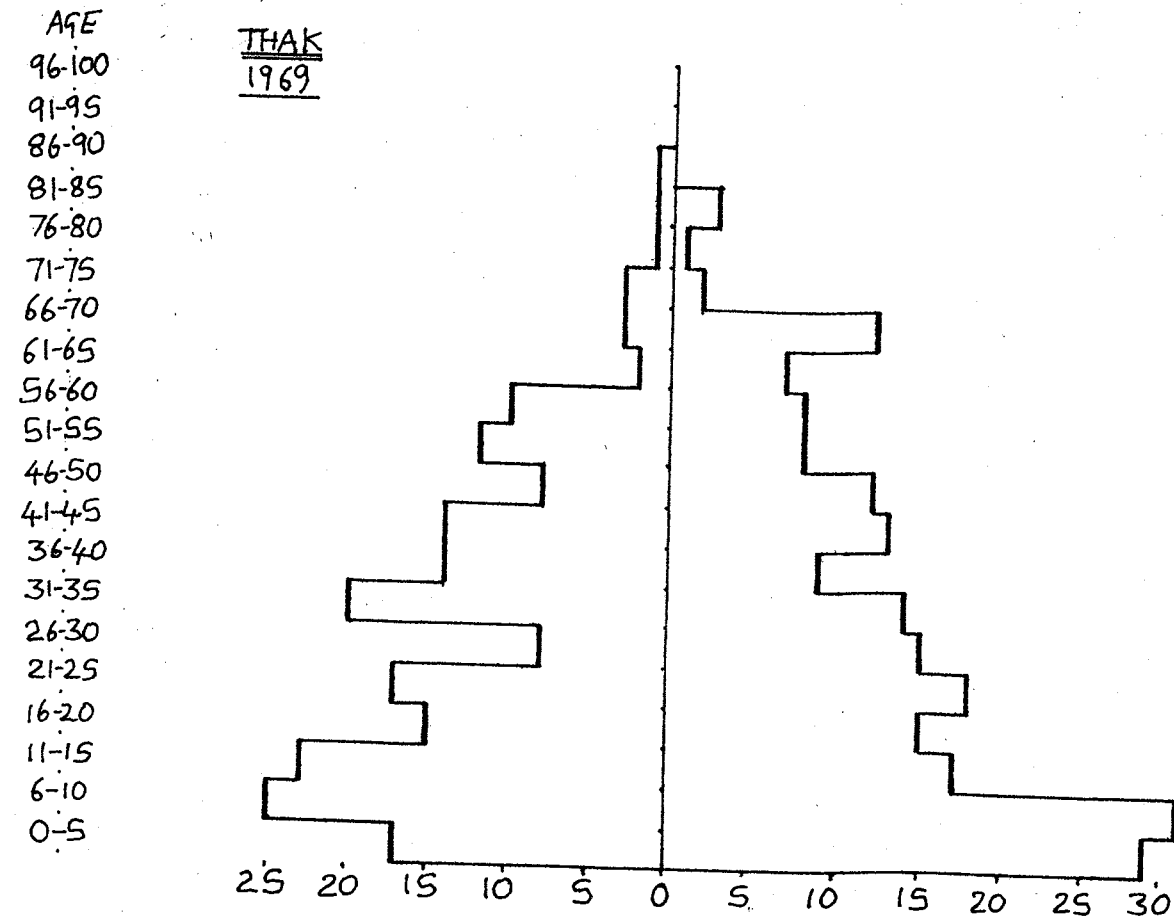


Fig. VII Age and sex structure: Gurungs of Thak (1969-1980)

It is useful to examine the data more closely.

Table VI: Percentage of Gurungs in 3 Age Categories

	0-15	16-50	51+
<u>Mohoriya</u>			
1958	32.5	50.1	17.4
1969	36.1	46.4	17.5
1980	39.0	42.8	18.2
<u>Thak</u>			
1969	33.7	48.4	17.9
1980	33.6	46.8	19.5
<u>Khilang</u>			
1980	31.5	52.5	15.9

Source: 1958 & 1969 data: Macfarlane 1976: 284-285 and Table 15.2

Table VI presents the three village populations in three age categories. Macfarlane comments for the change in Mohoriya between 1958 and 1969 that,

It is probable that the reason for this change was the migration of a number of Gurung families, containing a larger than average number of young adults, down to newly-opened lands in South Nepal. (Ibid: 284-285 and Table 15.2).

If this is so, then the trend would seem to have continued and even intensified up to 1980, bearing in mind the 'waisting' apparent in Fig. VI. But the presence of a new health post in the middle of Mohoriya may well have increased survival rates of the young as well as extending the proportion of villagers aged over 51; and while not the only explanation, it is possibly an

important factor. Thak too appears to have a greater proportion of old people than in 1969, although it does not have its own health post (the nearest being in Taprang, some walk away to the North). Khilang shows more the character of Mohoriya in 1958, with the bulk of the population in the middling age category, a relatively low proportion of young and of the elderly. The nearest health post to Khilang is in Siklis, about $1\frac{1}{2}$ hour's walk away and according to villagers infrequently used. Without extensive statistical backing, no firm conclusions can be drawn about the reasons for the differences in population structure so far plotted.

The above data concern *de jure* Gurung populations and account has not been taken of the temporary absences characteristic of a society containing a large number of migrant workers serving in the British and Indian Gurkha Regiments. Macfarlane comments that,

The British army had been drastically cutting down its recruitment of Gurkhas and it is quite possible that the Indian army will do likewise. The problem now and in the future will probably not be labour shortage and imbalance in the sex-ratio, but labour surplus and too many males in the village (Ibid: 290).

The figures for 1980 are presented in Table VII.

Table VII: Gurung Men 21-40 employed abroad (%)

	1969	1980
Mohoriya		63.6 (21/33)
Thak	59.6 (34/57)	64.0 (34/53)
Khilang		58.1 (50/86)

Source: 1969 data: Macfarlane 1976: 289.

It would appear that employment abroad has not so far declined in Thak; rather the reverse is the case, although it may well be that the proportion engaged in *military* as opposed to other civilian types of work has indeed decreased somewhat (15). If one looks at the overall percentages of men aged 21 + who are at present, or have been in the past, employed in military service then it is clear that there has been a drop from about 68 percent (74/109) to around 56 percent (65/115) between 1969 and 1980 in Thak village. Nonetheless, military service maintains an enormously important place in the village economy and its reduction will have severe implications.

Some Aspects of Female Fertility

It is possible now to turn to some aspects of female fertility in the villages and a restricted series of indices will be examined.

Table VIII: Completed Family Size: Gurung Women 40 +

	Mohoriya	Thak	Khilang
1958	5.1 (n=40)		
1969		5.0 (n-34)	
1980	4.5 (n-36)	4.2 (n-49)	3.7 (n=)

Source: 1969 and 1958 data: Macfarlane 1976: 251-253 and tables 13.1 and 13.2. Mean averages only, excluding childless women.

Firstly, figures for total completed family size are presented in Table VIII. For comparison with Macfarlane's data, women aged 40 + have been taken as the sample though this still permits births to occur (Macfarlane 1976: 251-253 and Tables

13.1 and 13.2). Macfarlane comments that the Gurung rate is on average one child lower than that for Nepal as a whole (which is 6.0) even if the figures are adjusted to 5.5 to compensate for underrecording. The 1980 figures suggest a lower rate. But the conclusion is surely that it is not justifiable to use age 40 as a base point for assessing completed fertility. Gurung women continue to bear children up to age 46, in the centre of the normal range 44-49 over which menopause occurs (Ibid: 262); and full data would raise the figures quoted above. Surveys of Kaski and Gorkha Districts have been published which give a pooled average figure of 5.8 on a sample of 373 women aged 40-44 (Tuladhar et al. 1977: 51 Table 2). Any attempt to compare the 1980 data with this would have to have available statistically more respectable backing than that which can be offered here.

Macfarlane also gives details of average numbers of live births to women of various ages and the data from 1980 are worth presenting alongside (Table IX). He comments:

It will immediately be seen that the trend is entirely different in these two sets of figures (i.e. Mohoriya 1958 and Thak 1969). In Mohoriya the complete family size appears to have been getting smaller up to the present, while in Thak the opposite is true, (Ibid: 253 and Table 13.3).

Table IX: Mean Average Live Birth to Gurung Women of Various Ages

	40-49		50-59		60 +	
	Mohoriya	Thak	Mohoriya	Thak	Mohoriya	Thak
1958	4.3		5.9		7.1	
1969		5.1		5.5		3.9
1980	4.8	4.4	4.6	4.3	4.6	3.1

Source: 1958 and 1969 data: Macfarlane 1976:253 and Table 13.3.

To the extent that figures based on such small samples can be interpreted at all in terms of trends, the data suggest that any decline in the index for Mohoriya has halted for the moment, while the Thak figures are consistent with Macfarlane's remark.

Other indices could be discussed, for example age-specific fertility rates, but the quality of the census data is too low for confident interpretation and they will not be presented here. Two more sets of data can, however, be considered, namely ages at first and last childbirth.

Table X presents mean and modal ages at first childbirth in the villages in 1980 and compares these with the figures available from the earlier studies. Discussing the 1958-1969 data, Macfarlane concludes that,

This relatively high age at first childbirth is undoubtedly of great importance in lowering Gurung fertility; in spite of high marital fertility rates, the Gurung have a completed family size below the national average. (Macfarlane 1976: 261).

So far as they are reliable, the figures for 1980 suggest that recent changes in Mohoriya and Thak have been towards an even higher age at first childbirth than that observed in 1958 and 1969. In Thak, the modal age at first marriage for women was 20, the mean just over 19 (Ibid: 220). Assuming without further details to prove it that the same is true of the other villages, one could conclude that social factors intervene to

Table X: Gurung Women: Mean and Modal Ages at First Childbirth

	1958	1969	1980	
Mohoriya	23		24.4 (n=58) 24	mean mode
Thak		23 20	23.4 (n=69) 21-22	mean mode
Khilang			23.9 (n=102) 22	mean mode

Source: 1958 and 1969 data: Macfarlane 1976: 258-261 and Fig. 13.2.

delay first pregnancy for some time after marriage, with employment abroad playing a part in this and significantly delaying marriage itself.

If the Gurungs start childbearing comparatively late after puberty, they also appear to finish fairly early according to the data on age at last childbirth (Table XI) (Ibid: 261-262). The Gurungs do not appear to lay enormous stress on large families, an attitude that may have been sustained in part (though not explained) by weekly broadcasts over the radio

Table XI: Gurung Women: Mean and Modal Ages at Last Childbirth

	1958	1969	1980	
Mohoriya	37 36		37.1 (n=34) 41	mean mode
Thak		35.8 32.41	35.9 (n=41) 42	mean mode
Khilang			35.6 (n=65) 41	mean mode

Source: 1958 and 1969 data: Macfarlane 1976: 261-262.

encouraging people to use contraceptives and warning against the dangers of over-population. The two statistical measures for each village in 1980 are close; and it would seem unlikely that the differences between the figures presented for the three dates 1958, 1969 and 1980 are of significance. However, Tuladhar and his co-authors have commented that the decline in incidence of widowhood has had a greater impact on numbers of births than an increase in the age at marriage (Tuladhar et al. 1977: 30). Thus one might expect a later age at last child-birth in the 1980 figures than in those of earlier surveys; and there may be some support for this in the figures given here, though any clear evidence has yet to become fully apparent in the mean averages.

Conclusion

The preceding analyses suggest that there has been a tendency towards (though not an attainment of) shared poverty rather than radical differentiation of the 'haves' from the 'have-nots'. They also suggest that the demographic characteristics of the three villages will not ease the pressure on resources to a marked degree. As it stands, the large amount of employment abroad is a crucial feature in alleviating the impact of ecologically adverse conditions; and any decline in this will have extensive implications for the village economies.

Blaikie and his colleagues conclude their study of *Nepal in Crisis* thus:

As the hill economy becomes increasingly precarious and the terai's potential disappears, the dependency relationship between the Region and India will become clearer. In addition, we see no reason to believe that the peasantry of Nepal will discover a collective political expression of its needs in time to save millions of people from

impoverishment, malnutrition, fruitless migration, and early death. (Blaikie et al. 1980: 284).

Whether or not "collective political expression" would be able to solve the problem faced at present is not an issue which can be discussed here. What is plain is that, if Hodgson's extra "fifty to one hundred thousand loyal hearts and stalwart bodies" *had* colonized the Himalayas of Nepal, the present and future plight of the Gurung villagers would probably be exacerbated.

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Footnotes

1. A survey by the present writer.
2. A survey by the author.
3. Ibid.
4. That is, 0.259 hectares per person according to Macfarlane 1976: 47 Table 4.6.
5. Strickland 1982b gives details of current honey collecting practices, which compare with Hooker's description (1855/1980: II: 40-1).
6. Compare Macfarlane 1976: 331.
7. Figures for 1958 and 1969 are from Macfarlane 1976: 58.
8. See p. 13-14 below.
9. In these terms, Thak in 1969 was actually worse off, with around 31% of households owning no rice land according to Macfarlane 1976: 54 Fig. 5.2.
10. The figures are as follows:

	Mohoriya		Thak		Khilang	
	<u>sora jat</u>	<u>car jat</u>	<u>sora jat</u>	<u>car jat</u>	<u>sora jat</u>	<u>car jat</u>
N.	20	17	13	48	8	27
\bar{x}	67.1	61.3	53.5	51.6	45.5	42.7
S.D.	30.9	21.0	14.0	15.0	7.2	7.5
S.D.: \bar{x}	46.1%	34.4%	26.2%	29.0%	15.8%	17.5%

11. Ibid: 59 Table 5.2. For comparison:

	1965		1980		
	<u>% households</u>	<u>% land owned (area)</u>	<u>% households</u>	<u>% rice + M/M plots</u>	<u>% rice + M/M yields</u>
<i>car jat</i>	70.4	78.9	72	76.5	79.5
<i>sora jat</i>	29.6	21.1	28	23.5	20.5

12. Compare Messerschmidt 1974: 310-312.

13. Information supplied personally by employees of the Lumle Agricultural Centre.
14. Macfarlane 1976: 212-213. Compare the demographic pattern of the Iban of Sarawak studied by Padoch (1982: 85-91, 104).
15. Macfarlane states (1976: 288 note 13) that in fact over 90% of the Thak men absent in service were serving in military ranks. In 1980, this proportion had dropped to about 73%.

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