Indicators of Rural Inequality

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Summary. — There are gradations of poverty even in the poorest societies. This essay explores indicators that measure wealth differences between households in the same community. Ethnographic and other literature has been surveyed, to provide examples from major Third World areas. The most important single indicator is control of land, followed by other productive resources — capital equipment (tractors, ploughs), consumer durables, income (farm and non-farm) and livestock. Non-productive indicators include housing, consumer goods, fuel, ceremonial expenditure and diet. Methodological problems are examined, and the essay concludes with representative case studies that illustrate effective and specific use of indicators.

1. INTRODUCTION

All development policies and programmes are aimed at helping 'the poor'. Recently, 'reducing inequalities' has been added to the professional goals of development. But our knowledge of poverty and inequalities still leaves much to be desired. Some years ago, Hill protested at 'the myth of amorphous peasantry'. Although scholars such as the late Oscar Lewis (1951) have long shown that wide wealth differences exist in rural Third World communities, only within the past decade has the notion of 'homogeneous peasants' come under attack (for instance, see Hill (1972); Mintz (1973); Cancian (1972, 1976); Wasserstrom (1975, 1978a,b, 1979); DeWalt (1979); Stavenhagen (1975); Palmer and Parsons (1977); Bundy (1978)). This essay shows that even in the poorest communities, in the poorest nations, there are gradations of poverty and wealth, and that an understanding of these is essential for any analysis of poverty, or for any development intervention.

We are examining indicators used to measure differences of wealth within a 'community' (however that is defined). Our basic unit is the household, the most commonly used unit in rural surveys. In comparing households, we note both attempts to use universal indicators, notably landholding and also local indicators, as perceived by the people themselves. The inequalities with which we are concerned are sometimes glaring, but in other cases they may not readily be apparent to an outsider. Stirling described (1965, pp. 290–293) a Turkish village thus:

Distinctions of wealth are not conspicuous. All households in both villages appear at first sight to live in much the same way . . . The wealthiest and most urbanized households have a comfortable sufficiency, while the poor are badly housed and clothed, and underfed in all but good years. But though differences in wealth are not conspicuous in the way of life, they are of great social importance.

We are stressing the indigenous views of poverty and inequality, rather than imposing our views. To keep this exploratory essay within manageable bounds, we have imposed several limits. Our emphasis throughout is on contemporary rural poverty in the Third World, concentrating on agricultural communities. We exclude poverty among fisherpeople, pastoralists and the few remaining hunter-gatherers. While we exclude people whose primary occupation is fishing, we do note that there are very many part-time fisherpeople in the rural Third World. We also exclude urban poverty, which is a

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sufficiently different phenomenon to warrant a distinctive approach with its own indicators. We do not take into account one of the most wretched of all today’s groups who live in poverty — the refugees in south-east Asia and in Africa. They, too, have their special problems. Even with these imposed limits, our essay still refers probably to a population of about 2 billion people.

We are concerned with local-level wealth differences, not with regional or national comparisons. This essay emphasizes indicators and associated methodological problems. We shall explore such themes as the causes of poverty, the development of social classes, the nature of pre-colonial inequality, and macro-level comparisons, in another article.

2. LAND

Ownership or control of land is the most important indicator of wealth and levels of living in most Third World communities. This is hardly surprising, given that land is usually the primary source of employment, subsistence and income (Stavenhagen, 1975; Griffin, 1979). Hence most researchers dealing with local-level economic inequality have focused on distribution of land as the major determinant of inequality. The role of land scarcity in economic differentiation has been especially important in Latin America and Asia with their long traditions of landlords, tenants and differences in landholdings (Stokes, 1978; Fei and Chang, 1948; Duncan and Rutledge, 1977; Feder, 1971). The International Labour Organization stresses this point in their current research on poverty and rural inequality in the Third World (ILO, 1980). ILO (1977) studies in Asia focus on the unequal distribution of land as the major determinant of the degree of differentiation and pauperization.

Srinivas illustrates how land in India is the cornerstone for many other activities:

The ownership of land was also the best-understood road to personal and familial prestige. A man’s importance was measured by the acres of arable land he owned, number of bullock teams, and the size of his manure heap. Such a man could play host to visiting officials, important castemen, religious mendicants and others. He could also perform acts of charity such as building or renovating a temple or pond, or feeding so many poor people during a festival or other occasion (1975, pp. 110–111).

When land has become a scarce resource through population pressure and agricultural commercialization, land prices inhibit poor families from obtaining additional land to satisfy their needs. Only the wealthy can purchase land and pursue commercial agriculture.

While emphasizing land as the main indicator of economic status in Asia because of the relation between land and wealth, ILO (1980, p. 8) studies in Africa concentrate on ‘farming systems’ as a determinant of economic inequality, because land is not regarded as a scarce factor of production in most African countries. Contrary to this assertion, however, two of the ILO reports (Lee, 1980; Bequele, 1980) and other studies in Africa indicate that with the rapid population increase in the last decades, land scarcity has developed in many areas. Coupled with increasing commercialization, land has become a more critical and scarcer factor of production than labour, while the opposite was true in most parts of Africa only a couple of decades ago.

Land is today subject to individual ownership in most areas of Africa, which, together with an expanded market for cash crops, has made size of holdings the principal determinant of farm income. A survey of economic community studies by Kitching (1977) substantiates this point. He concludes that because of fairly homogeneous efficiency levels of African farms, household and per capita income vary closely with farm size/cropped area. Landholding is therefore generally a reliable indicator of economic inequality in East and West Africa, according to the ILO studies.

Most studies of land inequality construct a frequency distribution, dividing the population into economic strata based on number and percentage of landholdings, correlated with number and percentage of the persons and/or households. These studies either divide landholdings into several categories according to size of acreage owned and cultivated (Paterson, 1980; Hill, 1972; Dube, 1955; Pippings, 1976; van Hekken and Thoden van Helzen, 1972), or they divide the population into intervals of, for example, deciles, and then enumerate the proportion of land that is owned per interval (Maude, 1973; Feder, 1971; Griffin, 1979). The frequency distribution can be illustrated by Pipping’s (1976) study, Landholdings on the Usangu Plain, Tanzania (see Table 1).

Ways of designating representative economic strata in relation to landholding vary. Some researchers define their division of the population into economic categories in terms of landholdings (Pipping, 1976; Awiti, 1973). In a Marxist class analysis of Ismani villages, Tanzania, Awiti (1973) defines classes according to access
to the means of production, such as capital equipment, livestock and non-agricultural means of production and land. However, he regards 'land as the most important variable in the overall context of rural society' (Awiti, 1976, p. 218), and thus divides the farmers into economic strata depending on the land they own:

1. poor farmers: 1–5.9 and 6–14.9 acres;
2. petty capitalist farmers: 15–24.9 and 25–39.9 acres;
3. capitalist farmers: 40–99 and 100–349 acres, and those over 350 acres.

The last group constituted 9% of the population but owned 53% of the land (see case study).

Hill (1972, 1977) and Fleuret (1978), on the other hand, rank their populations according to other criteria and then fit landholdings to the economic categories. In her work on the Hausa (Nigeria), Hill (1977, 1972) performs a multidimensional analysis of economic inequality, using several different indicators, of which land is one. Native informants were invited to rank the population subjectively into four different strata, to which, among other indicators, landholdings were added (see case study).

Fleuret (1978), in his study of Lushoto, Tanzania, started with a wealth index based on possessions which helped him to rank the population into two strata; rich and poor. Landholdings were then correlated with this division, showing that the rich had, in general, twice as much land as the poor.

When employing land as an indicator, several factors influencing the quality and character of the sample must be considered.

(a) Quality of land

Fertility, soil types, availability of water, distribution of plots and pasture, all contribute to make land a heterogeneous category [cf. Srinivas (1975, pp. 108ff)]. In their study of inequality in Rungwe, Tanzania, van Hekken and Thoden van Heilzen (1972) point out that no absolute land scarcity exists in the area of study, but fertile land, especially riverland which is used for cash crops, is very scarce. Consequently the authors concentrate on the distribution of riverland as an indicator. They conclude:

The scarcity of plots suitable for cash crop growing is the main reason for these disparities (in income), while individual differences between farmers and the number of able-bodied workers per household might be mentioned as secondary causes (p. 23).

Ecological variation between farms increases when the sample is so large that it masks local variation. In some areas, where land has not been consolidated, peasants own several plots, usually in different ecological zones. A related condition is encountered in areas where large farms are situated on land with low fertility and small farms on very fertile land, giving rise to differential productivity per acre (Kitching, 1977).

(b) Intensity of cultivation and types of crops

Although farm size generally co-varies with income, farms with intensive cultivation and higher efficiency may have higher incomes per acre, as illustrated by two examples from East Africa. In Bukoba district, Tanzania, specially fertile plots are used for the cultivation of prime cash crops, bananas and coffee. There are two systems of cultivation, the traditional monocropping of bananas and coffee, utilizing manure and plant waste as fertilizer, and the modern monocropping and capital-intensive production. 'Modern' farmers usually have larger holdings than those practicing traditional cultivation, and achieve a higher productivity per acre (Rald and Rald, 1975).

In the Kisii district of Kenya (Uchendu and Anthony, 1975), on the other hand, farmers with small holdings and traditional agricultural practices produced more per acre than 'progressive' or modern farmers with larger holdings. In this community the ratio of landholdings between 'progressive' and traditional farmers was 2:1, while the monetary value of output was twice as high for traditional farmers.

The type of crop grown is crucial since different crops fetch different prices and small farmers may grow only subsistence crops while larger farmers grow cash crops (Wasserstrom, 1978a). The price received for crops also may vary according to farm size, with larger growers receiving higher prices (Griffin, 1979).
Paterson (1980) shows that in Bunyore location, Western Kenya, several households had substantial holdings outside the village. In a sample of 76 households, 28 had rights in village land while simultaneously holding land outside the village. Only five continued to live in the village, however, and were therefore the only ones included in his survey.

The numerous studies of rural India also contain many examples of the problems involved in defining 'the village'. It is unusual for there to be a clearly defined area with a close correspondence between social and spatial conceptions.

(d) Tenants and landless

In a sample that includes tenants, and persons without land such as agricultural labourers, shopkeepers and specialists, other economic criteria than land must be used in order to compare economic status. Tenants' rents and security of tenancy should be taken into account. A sample of landholdings must differentiate between owned land and rented land, since a tenant must pay some form of rent which diminishes his net income.

Although we do not single out water, in societies that practice irrigated agriculture control of water can be an important differentiating factor. The Betsiteo of Madagascar are described as 'not an egalitarian society. Access to water, land, labour, and other strategic resources is unequal' (Kottak, 1980, p. 5).

3. CAPITAL EQUIPMENT

Farm implements and other income-generating investments indicate the productive capacity of farms and other enterprises. Ownership of capital equipment such as ploughs and tractors is often a key variable, as area cultivated depends greatly on the availability of these instruments. Awiti's (1973) information on plough and tractor ownership in Ismani, Tanzania, shows a strong relationship between ownership of capital equipment and economic status. Dividing his sample into three economic strata (see case study later), the distribution shown in Table 2 resulted.

Tractors were necessary to cultivate the hard soils in the dry season. Capitalists cultivated their own plots first, then rented their machinery out to poor and petty capitalists at shs. 40/acre. Vincent counted 31 oxploughs among the Gondo, all belonging to actual or aspiring 'big men'. Ownership was related to high income from cotton sales, and cultivation of large holdings. Ownership of ploughs 'gives control of a commanding resource in the community' — 'the several men of high status by other criteria are among the plow owners' including aspiring 'big men'. Owners either hire or lend ploughs and oxen. None of the 'big men', with one exception, exploits their ploughs for cash in their own community; they share with other members in the community, creating a 'resource for the building up of reciprocal obligations and for making alliances. By sharing with neighbours he incurs dependents' (1971, p. 201). There was no land shortage in the area at the time of the study; labour was attracted by work parties where the participants work for beer and food.

There is not necessarily a direct correlation between possession of capital equipment and income, because the amount earned depends on many factors, including skill, diligence and organizational ability. Many tractor owners, for example, miss income opportunities, or may even fall deeply into debt, because they cannot maintain their tractor and ensure optimum use.

Pipping (1976, p. 61) although not discussing the importance of capital equipment in Usangu, Tanzania, presents a table illustrating this point. Despite a tendency for farmers who rank high with respect to other indicators of wealth to own more of the capital equipment, some notable exceptions occur. In one village, Ruiwa, 2.6% of the landless owned tractors, while no farmers did, indicating that they are

<table>
<thead>
<tr>
<th>Value of tractors and ploughs</th>
<th>No. of</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Tractors</td>
</tr>
<tr>
<td>Capitalist farmers</td>
<td>578,400</td>
</tr>
<tr>
<td>Petty capitalist farmers</td>
<td>13,950</td>
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<tr>
<td>Poor farmers</td>
<td>8700</td>
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Table 2.
hired out. The distribution of sewing machines in the same village also suggests that some landless people work as tailors since the percentage of landless owning sewing machines was almost as high as among the largest farmers.

(a) Relation between capital equipment and other indicators

A wealth index based on capital equipment and other implements does not necessarily reflect the overall economic differentiation in a community. Other dimensions of inequality must also be taken into account. Depending on the character of the enterprise undertaken, the nature of investments and expenditure differ. A cultivator may invest in agricultural implements and cattle and have few other goods, while a shopkeeper may own things like expensive cloth and brick houses but own no farm capital equipment.

Long (1968, pp. 36ff) who investigated economic change and religious affiliation among the Lala in Serenje, Zambia, in 1963–1964, constructed two Guttman scales based on two clusters of items, capital equipment and consumer durables. The population was ranked into three strata according to ownership of items on this scale. Cluster one concentrated on capital equipment, ownership of: (1) a hand-grinding machine; (2) four or more cattle; (3) a farm implement other than a plough; (4) a plough; and (5) a bicycle.

Cluster two counted consumer durables: (1) motor vehicle; (2) radio; (3) Western-type furniture; (4) sewing machine; and (5) brick house.

The population was divided into three strata, high, medium and low, according to the number of the items owned in each cluster. If the population was ranked by ownership of items in cluster one, 30 households of a total of 214 belonged to the highest stratum — that is, those who owned three, four, five or more of these items. The majority of these households were of tobacco-growing farmers. If, however, the second cluster of consumer durables was used for categorizing, only 16 households could be counted as belonging to the high stratum; seven of these household’s heads were shopkeepers. Only six households could be regarded as wealthy according to both sets of indicators. The difference in result was to a great extent caused by difference in occupation. Most farmers who invested in farm implements could not afford to buy any consumer durables, while storekeepers put their money into consumer durables.

4. INCOME

Ideally, a household’s annual income should be the best indicator of its economic position, because annual income represents the net outcome of household productive capabilities and resources. Income also determines the household’s ability to pay for goods and services. However, in obtaining income data, investigators are faced with several conceptual and methodological problems.

First, Chayanov (1966), Wolf (1966), Warman (1972) and others have argued that the concept of income, as defined in classical economics, is not applicable to peasant agriculture. They emphasize that peasants are running households, not capitalistic enterprises. Households are said to strive for subsistence, the fulfilment of needs and obligations, and the maximum use of their most abundant resource: family labour. This contrasts with capitalistic enterprises, which strive for profits. Thus the objectives and organization of peasant agriculture are said to be qualitatively different from those of commercial farming.

Related to this problem is the importance of family self-provisioning. Third World people often grow part or all of their own subsistence. Thus, even though it may not ‘pay’ to grow maize, Mexican peasants in Morelos do so to meet family dietary needs (Melville, 1974). Foodstuffs and other materials, such as fuel-wood, for household consumption, may be gathered by family members from community-held lands. Family members may carry out a number of non-commercial but essential non-farming activities, such as house construction and maintenance, or rope making (Blades, 1975; Brush, 1977). Outside the market transactions, gifts and reciprocal exchanges often constitute a crucial part of household economic life, yet they are not expressed in monetary terms (Hill, 1972; Stavenhagen, 1977, Newman et al., 1979). Therefore, although household labour is expended, daily needs are met, and even transactions between households have occurred, no cash is spent or earned.

A third consideration is that families have multiple sources of income contributed by different family members. Labour time allocation studies have consistently shown that agriculturalists spend much time in a large number of non-agricultural pursuits (Erasmus, 1955; Johnson, 1975; Nag et al., 1978; Minge-Klavena, 1980). As mentioned previously, some of these activities are directed towards meeting household needs. Others, though, are oriented towards the market. These studies also show that
children and adolescents of both sexes, as well as adult males and females, contribute significantly to family earnings (Nag et al., 1978). For example, Erasmus (1967, p. 52) found in Las Bocas, Mexico, that Maya Indian households averaged five different sources of income apiece. These activities were pursued by different members of the family, some activities being seasonal and others carried out alternatively, depending upon market demands.

Intra- and interyearly variations in income present problems. Rald and Rald (1975) and Vincent (1971) found that income received from the same plots of land growing the same crops varied tremendously from one year to the next. Fluctuations in rainfall and prices, as well as attacks of blights and pests, can affect year-to-year income. Moreover, incomes and consumption vary according to the season (Chambers, 1978, 1979; Connell and Lipton, 1977, pp. 26-27). Besides pre- and post-harvest differences, some families or individuals may engage in seasonal labour migration.

There are numerous other problems. People generally are reluctant to reveal their wealth and holdings to strangers and even neighbours. Obviously, such reluctance is a defence mechanism against tax collectors, local elites, needy relatives, and others who could lay claim on the household's wealth. Another problem is that income is often obtained from illegal activities, such as smuggling, growing marijuana, unlicensed brewing or distilling of liquor, and so on. These occupations are usually financially rewarding, although risky. In these cases a household may be even more reluctant to reveal such sources of income.

The aforementioned problems need not be insurmountable. However, we are in agreement with Connell and Lipton (1977, p. 27):

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\ldots\text{despite the fundamental role of income \ldots it is usually the least useful information in village surveys unless the methodology is clearly stated in a way that clarifies the concept of income used, shows the reliability of the measurements and explains the method of data collection.}
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We now examine common sources of income and discuss their significance for rural wealth differences.

(a) Agricultural income

(i) The sale of crops

The amount of income derived from the sale of crops depends on a number of factors: the size of the holding, the yields per hectare, costs vs prices, the size of family, whether dry (rainfall supplied) or wet (irrigated) farming is involved, and specific tenure relationships. The costs of different factors of production (such as land, water, equipment and credit) typically vary among growers of different sizes, with factor prices (except possibly for labour) being cheaper for larger farmers (Griffin, 1979). In many cases crops do not enter the market for sale. Instead, they are sold prior to harvest or even planting, to middlemen such as lorry drivers, store owners or money lenders (Fonck, 1972), warehouse owners and large-scale distributors (Forman, 1975), and local or multinational food processors or brokers (Feder, 1977; Lappe and Collins, 1977; Agbonifo and Cohen, 1976; NACLA, 1978). Often the middleman exerts some control over the production process, determining the type of crop to be grown and the amount of acreage to be planted, as well as establishing quality standards. Although the price to be received is usually said to be arrived at through mutual agreement, many observers claim that the grower is usually at a disadvantage (Feder, 1976; George, 1979). Similar sorts of arrangements are frequently found between agriculturalists and government credit banks.

(ii) Rent

In many parts of the Third World, especially in the non-socialist countries of Asia and Latin America, the historical monopolization of land has led to the establishment of a variety of landlord-tenant relationships. These relationships are currently undergoing profound alteration from technological, economic and political changes, such as agrarian reform programmes and the Green Revolution (Griffin, 1976, 1979). Although land rents are increasingly paid in cash, payment in kind still persists (Feder, 1971).

Being a tenant or renter of land need not connote low economic status. In some cases, wealthier villagers may rent out their less desirable lands, while at the same time renting more favourable plots (Tax, 1953). However, in most cases being a landlord does imply higher economic status.

(iii) Hired labour

Hired labour in the Third World works under several different contractual arrangements (Feder, 1971, pp. 130-134). We can differentiate workers according to the frequency with which they work as hired labourers: occasional day labour; seasonal worker; or full-time rural proletariat. The type of remuner-
ation is another means of differentiation: those who receive cash; those receiving both cash and part of the products of the land; those workers who receive a share of the crop; and those who receive perquisites such as housing, food, medical care, and so on. Individuals tend to shift between these different modes of employment and forms of remuneration, a condition which Julio Barbosa has labeled the ‘polyvalency of employment’ (Feder, 1971, pp. 134–136).

However, the current trend appears to be that hired-labourer status is becoming more permanent, and that payment in cash is replacing other arrangements (Griffin, 1979; Feder, 1978, 1979; Stavenhagen, 1975).

Historically, people have entered into wage labour for a variety of reasons, such as to accumulate capital for reinvesting on farms, to purchase consumer goods, or to escape the rule of elders. But the overriding cause appears to be land scarcity. There are numerous accounts of local resistance to working for wages. In general, those who do are driven by landlessness or because their plots are insufficient to provide an adequate subsistence. Thus, those who are wage labourers tend to be the poorer villagers. Because wage levels are generally low in agriculture, these workers are unable to accumulate capital and are chronically poor (Feder, 1971, 1978, 1979; Griffin, 1979; Deere and de Janvry, 1979).

Migratory agricultural wage labour is a common part of agrarian systems in Africa (Stavenhagen, 1975; Paige, 1975), Asia (Griffin, 1979) and Latin America (Feder, 1971). This ‘silent march of the poor’ has special consequences for those interested in determining wealth differences at the community level. Migrants may work or reside in a community at certain times or seasons of the year. Because they affect the local labour market and because their purchases may contribute heavily, at least during certain parts of the year, to local merchants, vendors, and so on, surveys of wealth differences should include migratory workers.

(iv) Marketing and processing

Another important income source is the marketing of farm produce. Small-scale producers often directly market their own crops. Some producers will also market their neighbours’ crops (Tax, 1953; Forman, 1975). Lorry owners, store owners, and traders are often involved in the marketing of crops (Dow, 1973; Beals, 1975; Sharp, 1977). In some areas urban large-scale distributors and warehouse owners are gaining control over the marketing of produce, with small peasant competitors being driven out (Forman, 1975, pp. 87–140). Large-scale producers may also ‘vertically integrate’. Feder (1977) and Goldberg (1974) report that in some of the commercial agricultural areas of Mexico, large farmers own packing sheds and run food brokerage firms.

Rural communities usually have a number of agricultural processing enterprises, such as mills or distilleries. These vary in size and scale. In Java, hand-pounding of rice was an important source of income for women. However, the introduction of mechanized hulling and milling has reduced this occupation (Palmer, 1977, p. 224). In Cajamarca, Peru, the sale of dairy products is an important source of income for both wealthy and poor households (Deere and de Janvry, 1979, pp. 605–607).

(b) Non-agricultural income

Non-agricultural sources of income have only recently gained the attention of those concerned with development (Anderson and Leiserson, 1980, pp. 227–228). Non-farm occupations are engaged in for a number of purposes, and these purposes indicate to some extent the economic status of an individual. Among the landless or land-poor, non-farm activities may be undertaken for sheer survival. In fact, non-farm activities may be the chief source of livelihood while farming is only a supplementary activity. In Chumula, Mexico, 80% of the households own only enough land to grow approximately 11.5% of the maize they consume annually. Thus, people engage in a number of non-farm activities, including seasonal wage labour on plantations, work on road crews, tenant farming, charcoal making, and peddling (Wasserstrom, 1978a).

Non-agricultural activities may also be an important source of capital, which can be reinvested in agriculture. In East Africa, Fleuret (1978) and Kitching (1977) suggest that differential access to off-farm income has led to inequalities in farm size. Kitching (1977, pp. 27–35) shows that individuals seek out and intermingle income from wage labour, trade, business, farming and salaried positions to accumulate funds for farm reinvestment. Kitching (1977, p. 44) writes that:

> ... the successful manage to turn their occupational chains into income escalators, while the unsuccessful may change jobs regularly without markedly increasing their income.

In fact, agriculture may be engaged in only as a means of reaching the goals of being wealthy
and powerful. It becomes simply another link on their 'chains of occupations and incomes'. If farming does not prove sufficiently rewarding, or if more lucrative opportunities arise, it is abandoned.

Therefore, engagement in non-farm activities may indicate poverty, landlessness and the process of proletarianization. But it also can indicate wealth or future potential for economic advancement. In general, having multiple sources of income is desirable. This allows a household to escape the vagaries of the seasons, and of market fluctuations. When an individual has an assured income, even though it may be a comparatively small sum, he can plan, buy inputs, obtain credit, and start the upward spiral (Rald and Rald, 1975; Fleuret, 1978; Vincent, 1971; Paterson, 1980; Hinshaw, 1975).

Some of the activities which are typically engaged in include:

1. **Craft and other local specialists**, who engage in 'traditional occupations'. The solar marketing systems of highland Latin America (Beals, 1975; Wolf, 1959; Nash, 1967; Tax, 1952, 1953) and the *ajman* system of India (Mandelbaum, 1972), operate on such specializations.

2. **Non-farm wage labour** such as work in nearby urban centres, factories (Nash, 1967; Rothstein, 1979; Miller, 1973), public works projects, tourist-related industries (Hinshaw, 1975).

3. **Petty trade and commerce**, such as itinerant traders and hawkers (Beals, 1975; Wasserstrom, 1978a). This would also include service workers and prepared-food vendors.

4. **Salaried positions**, which are particularly important when considering the process of capital accumulation, because salaried jobs offer an assured income source (Kitching, 1977); jobs include school teachers, government officials, and higher paid employees. These positions are also important because the individual may have access to information, such as where roads will be built, or on land planning.

5. **Large-scale entrepreneurial operations** – some individuals may have investments in land or farms although they are engaged in other, urban-based occupations. Thus, industrialists may invest in land as a hedge against inflation, for real estate speculation, or for some other reason. While they are nominally part of the rural economy, their main source of wealth may be in the urban, industrial economy (Feder, 1971).

6. **Moneylending** is usually carried out by wealthier people, since they are the only ones who will have cash available on hand. Rather than specialists, this occupation is carried out by merchants, wealthier farmers, lorry owners and others.

7. **Illicit occupations** include smuggling, prostitution, poaching, and other activities which may be an important source of income.

5. **LIVESTOCK**

The importance of livestock as the major form (as in many African societies), or one of the major forms of wealth and investment in rural societies has probably diminished with the proliferation of alternative investment and consumption possibilities. Horses, donkeys and oxen, which formerly were the only means of traction and transport, nowadays compete with trucks, cars, tractors and bicycles. Secondly, additional forms of productive investments such as tractors, other farm implements, land, cash crops, education or shops provide alternatives to investing in sheep, goats and cattle. Modern consumer goods replace livestock as symbols of status and wealth.

Despite new avenues for investment, livestock remains one of the most remunerative and important investments in rural areas of the Third World. Bates (1976, p. 168) in his Zambian study concludes that cattle are one of the principal determinants of agricultural productivity in peasant farming. Sale of cattle adds substantially to farm income, and the use of oxen for ploughing enables the owner to cultivate larger acreages than those who have no oxen.

Another study from Botswana (Colclough and Fallon, 1979) emphasizes this point. In a sample of rural communities, most total household income came from contributions from animals, wages, transfers (from migrant workers), and crops. The return for cattle husbandry is high, and ownership of cattle is the dominant form of wealth, which became a proxy for economic status. The study concludes that cattle ownership is the key determinant of total household income through: (a) increased income due to total returns from animals; and (b) increased income from other sources made possible through cattle: e.g. larger acreages cultivated, the use of cattle income to invest in education and training, thus raising household wage income.

Although the traditional lending system of cattle theoretically could provide an equalizing effect, it has in fact very little impact. The number of cattleholders as opposed to owners is only 3% higher. The unequal distribution in turn affects income from crops since non-owners have difficulties getting their fields ploughed at the optimum time. The owners plough their fields first, before lending out their oxen to others. Households owning no cattle planted two-thirds of the area and received less than one-quarter of the harvest, compared to cattle owners.

When using livestock as an indicator, three aspects must be taken into account: different economic roles; existence of alternative investments; and differential productive characteristics within a particular category of livestock examined.

The uses of livestock can be divided into six rough categories: (1) traction and transport; (2) food production (milk and meat); (3) investment property; (4) manure; (5) socio-economic payments; and (6) status and wealth symbols.

(a) Traction and transport

Oxen are used for ploughing, which enables owners to increase their income in three ways: (a) cultivating larger acreages than non-owners; (b) hiring out oxen and ploughs (Vincent, 1971; Hill, 1972; Colclough and Fallon, 1979); (c) being able to cultivate their fields at the optimum time, whereas farmers who hire oxen must often wait their turn, cultivating late and receiving lower yields. Several studies indicate a concentration of oxen among larger landholders and wealthier households (Vincent, 1971; Hill, 1972; Pipping, 1976).

In Iringa, Awiti (1973) found that a majority of ploughs (and presumably oxen), were owned by the middle economic strata (petty capitalists, see case study), while the wealthiest farmers had tractors instead. In this community, oxen and ploughs had been replaced by tractors in the wealthiest stratum, thus degrading the former type of equipment.

Donkeys among rural Hausa (Hill, 1972, pp. 66f), were to a great extent owned by the upper two economic levels (of four; see case study), 55 out of a total of 77. Some of the wealthier farmers, however, rented donkeys rather than keeping their own. Pipping’s (1976) data from Usangu show a slight concentration of donkeys in the hands of wealthier farmers in one of his sample villages, while in the other, only a few of the smallest farmers had some animals. Bicycle distribution, on the other hand, showed a close correlation with overall wealth (Pipping, 1976, p. 61). It is highly probable that other means of transport are replacing donkeys in rural areas.

(b) Food production

The regular sale of milk and meat is an important source of income for many farmers. Among the Ila in Zambia, the wealthiest 5% sell oxen every 3–4 months in order to buy clothing, food and drink, pay school fees, buy a grinding mill or motor vehicle, or build brick houses — separating them from the average farmer who can afford to sell only once a year (Fielder, 1973, p. 354).

Milk from exotic-grade cows is a remunerative income, which the Gusii of Kenya find more profitable than cash crops, such as coffee and tea, which were uprooted in order to provide for pasture. With artificial insemination and vaccination, milk cows of exotic breeds are attractive and very remunerative investments which were rapidly spreading at the time of the study (Uchendu and Anthony, 1975, p. 75).

(c) Investment

Investment in cattle provides returns both in milk and meat production, and the steady increase in the value of a herd. Fielder (1973, p. 351) states that cattle are utilized as a deposit account in which the value increases much faster than, for example, in a post office account. ‘Cattle are our bank’, say the Ila. The natural increase through reproduction can be as high as 15%/year in Namwala, Zambia (Fielder, 1973, p. 352), and the cash value increases continuously (300–400% between 1950 and 1970 in Namwala). Labour costs do not, on the other hand, increase significantly with herd increase.

Summarizing East African material, Schneider (1979, pp. 241ff), notes a strong tendency in many areas to reinvest proceeds from cash cropping in cattle. The great importance of cattle as investment, savings and productive property in Africa in particular, suggests that their role as economic indicators should not be overlooked. In a community such as Iringa, where commercialization and capitalization of agriculture have gone far, and where alternative investment opportunities exist, cattle holdings still correspond to general economic status, expressed in size of landholdings, monetary income and capital ownership (Awiti, 1973).
(d) Manure

The extent to which cattle manure is used varies widely; in some communities crops are grown in old kraals, while no other effort is made to spread manure on fields. In the Mount Kilimanjaro area, and on Ukara Island (Lake Victoria), droppings are systematically collected and spread on the fields. Ludwig (1968, p. 120) found that manured fields on Ukara Island yielded 50% more than unmanured. Reining (1970, p. 70) established a close relation between ownership of cattle and size of coffee production in Bukoba district, Tanzania. Output of coffee was 209 lb/acre for cattle owners, while it was 101 lb/acre for farmers lacking cattle.

(e) Socio-economic payment

Although on the decline, traditional uses of cattle are still practised in Africa. Bridewealth cattle, which formed one of the most important expenditures in colonial and precolonial times, have today been to a great extent supplemented or replaced by substantial monetary payments. However, some communities still pay bridewealth in cattle [e.g. Gusii, Kenya (Uchendu and Anthony, 1975); and Gondo, Uganda (Vincent, 1971)]. Having enough cattle for bridewealth is important since the natural increase of the herd partly compensates for the loss.

Other socio-economic uses, such as slaughter for ceremonies and festive occasions still persist, although these are generally declining. Being able to provide for such occasions creates economic and political obligations, and gives the rich man considerable prestige and status in his community.

(f) Status symbols

Large livestock holdings by themselves are symbols of wealth by virtue of their productivity. However, the possession of sometimes unproductive livestock, such as horses, is a sign of wealth in some communities in Africa (Lewis, 1970), and India (Ahmad, 1977). The importance of such status symbols has radically diminished with access to Western goods, and their value as indicators of wealth is today quite limited.

The second factor to be taken into account, when assessing the relative position of cattle as an expression of wealth, is the existence of alternative profitable investments. In an area with diverse economic activities, with more-or-less equal rewards, they have to be weighed against one another in order to establish the validity of any one of them as a sole indicator. For example, several rural communities provide opportunities for fishing, trading or skilled work, which can be equally profitable goals for investment making, cattle being only one of several alternatives. Consequently a shopkeeper could be quite wealthy without having any cattle.

Third, even if livestock of some sort could be used as an indicator, individual holdings may differ with respect to productivity and value. Hill (1972, p. 164) points out that although sheep and goats owned by poor Hausa have access to grazing equal to the animals of the rich, the latter can supplement the diet of their animals, thus improving their productivity. Rich farmers also obtain higher prices for their goats since they can afford to sell when market prices are high, while the poor often sell before harvest, when the prices are at their lowest, in order to obtain grain.

Another difference is based on breed. In Kisii, Kenya, grade cows from Europe have become popular investments which were spreading rapidly in the 1960s. They are kept as milk producers, and, with artificial insemination, an owner can keep a herd consisting of only cows, while owners of traditional cattle must keep unproductive bulls (Uchendu and Anthony, 1975). The sample in Uchendu and Anthony's (1975) study shows a great difference in revenues from milk sales, depending on the number of grade cattle owned, meaning that in one sample one cannot simply count the number of beasts without regard to breed and quality.

Other possible factors of influence are quality of grazing, access to cattle dips and to veterinary services. [See Dahl and Hjort (1976) for a detailed survey of livestock productivity in Africa and the Middle East.]

In dealing with livestock, we have emphasized cattle and larger stock. But the poorest people can seldom afford to own large stock, although their small stock are often very important to them. For example, small stock may often serve as a buffer against contingencies such as illness, or crop failure, by providing a much needed reserve. Small stock includes not only sheep and goats, and the ubiquitous chickens, but also yaks, llamas, rabbits, pigs and ducks.
6. NON-PRODUCTIVE PROPERTY

Non-productive property, including housing, clothing, and various consumer goods, is an important indicator of past and present purchasing power (Hunt, 1975, p. 20). As a proxy of income, it is valuable in cross-checking relative wealth levels of community members. Moreover, along with land and other income sources, non-productive property is a measure local peoples use in determining their neighbours' and their own economic standing (Wolf, 1956, p. 203; Hill, 1977).

(a) Housing

Housing is one of the most visible and important indicators of inter- and intra-community wealth differences (Chambers, 1981, p. 10). Several aspects of housing should be taken into consideration, including the type and quality of housing, and the location of housing.

The standard of housing, that is, the type and quality of housing, is often a good proxy of income levels (Moore, 1979, p. 4). Even in communities where residents 'are not house-proud' (Lewis, 1970, p. 169), or the community has a 'crumbled look' (Hinton, 1966, p. 19), there are significant differences in the types and quality of housing. Just as residents of rural communities are not homogeneous, neither are their dwellings all alike.

The type of construction materials used is crucial in determining the quality of housing. By quality, we mean the dwelling's ability to insulate its inhabitants from various natural elements (wind, rain, heat, cold), and to provide relative comfort and privacy. The type of construction materials is also important in determining the frequency and amount of repairs needed. Depending upon the circumstances and specific materials available, poorer households tend to make their dwellings from materials which can be gathered at little or no cost, other than family labour (Rodgers, 1976, p. 265). Bamboo, grasses, palm fronds, and 'mass-adobe' (in contrast to brick adobe), are materials which can typically be gathered. In contrast, materials which are processed and purchased, such as corrugated metal, bricks, plaster, glass for windows, and so on, are more generally found on wealthier villagers' dwellings. Store-bought materials usually offer more protection and privacy, besides being frequently associated with high status. 'In Mbeere, Kenya, an educated man must have an iron roof' (Brokensha and Riley, unpublished manuscript). Thus, by

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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<tr>
<td>(1) House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Central Java</td>
<td>Bamboo</td>
<td>Combination</td>
<td>Brick and plaster, teak</td>
</tr>
<tr>
<td>(b) Panajachel, Guatemala</td>
<td>Mass adobe</td>
<td>Adobe</td>
<td>Brick adobe</td>
</tr>
<tr>
<td>(c) Puerto de las Piedras, Mexico</td>
<td>Adobe</td>
<td>Adobe walls, with cement covering and painted inside and out</td>
<td></td>
</tr>
<tr>
<td>(2) Floor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Central Java</td>
<td>Dirt</td>
<td>Bricks covered with cement; limestone blocks</td>
<td>Polished cement blocks</td>
</tr>
<tr>
<td>(b) Puerto de las Piedras, Mexico</td>
<td>Dirt</td>
<td>Stones from nearby quarry</td>
<td>Cement floor</td>
</tr>
<tr>
<td>(3) Roof</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Central Java</td>
<td>Straw, fronds</td>
<td>Tile</td>
<td>Corrugated metal</td>
</tr>
<tr>
<td>(b) Ethiopia</td>
<td>Thatch</td>
<td></td>
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Sources: Central Java – Soetoro, cited by Honadle (1979, p. 11); Panajachel – Tax (1953, p. 200); Puerto de las Piedras – DeWalt (1979, pp. 117–120); Ethiopia – Lewis (1970, p. 169); chart adapted from Honadle (1979, p. 11).
looking at materials used for flooring, walls and roofing, one is able to identify relative wealth differences, as Table 3 demonstrates. Also, Pipping (1976) (Usangu, Tanzania) devised a similar scale based on house construction and building material.

Other indicators based on housing include the number of rooms, the presence of specialized rooms (for kitchens, storage, entertaining), multiple vs single stories, the presence of windows (and glass), and the presence of a fence around the housing compound. For example, DeWalt (1979, pp. 117–123) found that the poor generally lived in single-room dwellings, while the wealthier had between two and four rooms. In pre-Revolutionary China, Fei and Chang (1948, pp. 94–96) found that the wealthier community members lived in two-storey houses with large rooms and a porch, while the poor lived in tiny houses.

The general condition of the house, that is, whether it needs repairs, sometimes indicates wealth differences. Fei and Chang (1948, p. 93) described the dwellings of the poor as 'ramshackled'. They visited one family after a period of rainy weather, when part of a wall collapsed. Their comments are illuminating:

'We were appalled by this catastrophe, but the family accepted it calmly, for, as we learned, it was a frequent occurrence. The wife simply remarked that once more they would have a poor night's sleep."

In the Dominican Republic, Sharp (1977, pp. 46–54) found that the houses of the poor tended to leak during the rain, while wealthier villagers, who could afford wooden shingle roofs, suffered no such inconvenience. Lewis (1951, p. 215) found that wealthier households spent a larger percentage of their budgets on house maintenance. In contrast, poorer families sometimes went years without improving their dwellings.

The distribution of wealth is often reflected in residential patterns. Certain sites are, or become, desired because of their easier access to roads, fields and services such as electricity, piped water, and public transportation. For instance, M. P. Moore and G. Wickremesinghe [cited in Chambers (1981, p. 5)] observed in Sri Lanka that: '... wealthier households use their social and economic power to obtain roadside homestead sites'. Besides their convenient access to 'tangible services' such as buses and hawkers, these roadside sites '...provide such intangible benefits as better information and gossip from passers-by'. Moreover, roadside residents can open small shops, thus creating a new income source.

While wealthier community members may reside in economically strategic positions, such as along main roads or near the centre of town, poorer villagers may be 'hidden' from view (Chambers, 1981, p. 8). The poorer groups tend to be off the main streets – on backroads, alleys or at the periphery of town. Or the poor may be residing in dispersed settlements in the countryside.

Even where no distinctions between rich and poor neighbourhoods seem apparent, wealth differences may be reflected in residential patterns. For example, Tax (1953, pp. 191–192) states that both he and the Indians of the Panajachel, Guatemala, felt that no relationship existed between residence and household wealth. However, after completing a household census of wealth and mapping the community, he discovered that wealthier families were concentrated near the best farm lands and at the lake front. The poorer households tended to live away from the lake and the better fields, and were instead living along the border of hills.

As with any indicator, caution is needed in using housing as a measure of wealth. A visit by dignitaries may prompt the appearance of tin roofs, for example (Honadle, 1979, pp. 14–15). A house in relatively poor condition may not indicate poverty. In Sri Lanka, for instance, recently married young couples from wealthy backgrounds may live for years in low-standard housing until 'they are able to build up and improve them' (Moore, 1979, p. 5).

Another factor to be taken into consideration is home ownership. Poorer people may be only tenants, while the wealthier own their own dwelling (Fei and Chang, 1948). In Sahiwal, Pakistan, houses are built by tenants on land provided by the landlord without charge. When the tenant leaves, he is not able to dismantle it (Ahmad, 1977, pp. 48–49). Under such conditions, particularly with a fairly high turnover rate, the tenant has little incentive to maintain the quality of housing or to make repairs.

(b) Furnishings and consumer goods

A number of studies have shown that household furnishings and consumer goods are usually distributed according to wealth positions within the community. Lewis (1951, p. 183) observed that in Tepoztlan, Mexico, the better-to-do families usually possess:

...a greater quantity of household goods, whether primitive or modern. Wealthier families generally own enough plates, pots, glasses, spoons, chairs, etc. to be able to serve fiesta meals to a large num-
ber of people without having to borrow, as do so many other Tepoztecan families.

Lewis' (1951, p. 215) household budget surveys also revealed that:

... the better-to-do families use more soap, bathe and change clothes more often, use labor-saving charcoal, and have better lighting in the home.

Furth (1959, p. 112), Knight (1974, p. 227), Colson and Scudder (1975, p. 205), Pipping (1976), Hunt (1975, 1978), Erasmus (1967, pp. 64, 78), DeWalt (1979, pp. 108-111), the ILO (1980, p. 80), and others have convincingly shown that wrist watches, bicycles, sewing machines, radios, refrigerators, gas stoves, television sets, motor vehicles, and other industrially-manufactured goods are concentrated among those households with the greatest purchasing power. Kay (1964) and DeWalt (1979, pp. 109-110) have related the incidence of certain consumer goods with the ranking of household wealth, using a Guttman scale. Long (1968), Fleuret (1978) and Hunt (1975) also use consumer durables as an indicator.

Clothing is another important indicator of wealth. In Panajachel, Guatemala, Hinshaw (1975, pp. 30-31) found that types of dress and shoes (if any) were good indicators of wealth differences. Sometimes there is little difference between the everyday work clothes of rich and poor, but 'real distinction' will occur in their ceremonial customs (Ahmad, 1977, p. 51). Most people will possess a 'good outfit' to wear for special occasions, but the wealthier will be able to dress 'well' with greater frequency and variety (Lewis, 1970, p. 169). Jewelry and ornaments can also indicate wealth differences (Goldkind, 1965, p. 869), but there are exceptions (Ahmad, 1977, p. 49).

Special care should be taken in using non-productive property as a wealth indicator. The presence or absence of an item need not solely be determined by wealth. Among the Tepoztecan, many of the wealthy people who were older and less educated purchased few modern consumer goods (Lewis, 1951, pp. 176, 183). Wearing shoes and sleeping in beds, for example, were correlated with age rather than with wealth. Older people preferred to use sandals or to go barefoot. Many families, however, did sleep on the floor and possessed few, if any shoes because they lacked funds (Lewis, 1951, p. 184).

7. FUEL

Another indicator of poverty and wealth — and one likely to be of increasing importance — is access to fuel, which includes firewood, charcoal, crop residues and cattle dung, the most popular forms of energy (for cooking and heating) in Third-World rural communities. Since the publication of Eckholm's (1975) pioneering study (The Other Energy Crisis: Firewood), there has been a steady stream of surveys of the crisis [see Wood et al. (1979), for a comprehensive bibliography]. However, most studies dealing with the problem at the community level fail to differentiate relative access to fuelwood. One notable and early exception is Fei and Chang's (1948) Earthbound China. They (1948, p. 88) found that wealthier households purchased charcoal, while the poor gathered grass and wood. Fei and Chang's (1948, pp. 93-94) observations on a visit to two poor households are particularly revealing:

Both houses are almost constantly filled with smoke, since by reason of the inadequate clothing of the occupants, a fire is essential for warmth in chilly weather and since poverty necessitates the burning of grass and wood rather than charcoal. The smoke was so heavy that we, unaccustomed to it, were unable to open our eyes and were convinced that the equipment of an investigator should include a gas mask. Inasmuch as the activities of almost all the occupants are carried on within the walls of these wet, smoky hovels, it is not surprising that, although each family had produced six or seven children, only one was alive at the time we were in the village.

Thus, Fei and Chang (1948) were highly sensitive to the relationship between wealth differences, access to fuel, housing, health and other factors.

Briscoe (1979, pp. 2, 31a), in a recent village study in Bangladesh, points out the differential access to fuel sources, showing 'that the ownership of the assets which produce fuel are highly concentrated': 16 percent of the families own 80 percent of the trees, 55 percent of the cropped land and 45 percent of the cattle'. Briscoe (1979) shows that families of different classes use different types and sources of fuel, that the poor people have great difficulty in getting any fuel at certain seasons, and that it is the poorest who have to buy fuel at the market. Briscoe (1979) divides his village population (2300) into Hindu Fishermen and Muslims, the latter being subdivided into landless, poor, medium and rich: these are direct translations of the Bengali terms used by the people themselves. Briscoe (1979), recognizing that the dividing lines are not precise, defines 'landless' as those owning less than one-third of an acre; 'poor' as those owning less than 2 acres; 'medium' as those owning 2-4 acres; and 'rich' as
those owning more than 4 acres (p. 59). The poor resort to stealing firewood [a phenomenon reported to be increasing in many parts of the world (Wood, 1979, p. 39)], and to buying fuel with money that could be used for food (p. 33).

8. CEREMONIAL EXPENDITURE

Household wealth differences are sometimes reflected in ceremonial expenditures. In many societies there is a high level of cultural and social expectation concerning expenditures for ceremonial occasions such as weddings, funerals, baptisms, holy days, and the holding of ritual offices. People gain considerable prestige for holding lavish ceremonies. For example, in Larteh, Ghana, wealthier households are expected to spend more money on funerals (Brokensha, 1966, p. 200). In South India (Epstein, 1973), Pakistan (Ahmad, 1977, p. 101) and Kenya (Parkin, 1972), wealthier families hold more expensive weddings. Merriam (1974, p. 99) found that expenses for weddings, funerals and political succession were largest among wealthier families. In highland Indian communities of Latin America, wealthy males have generally held the highest positions in the local politico-religious hierarchy, the fiesta system (Wagley, 1949; Tax, 1953; Wolf, 1955, 1957, 1959; Nash, 1967; Cancian, 1965; Stein, 1961).

Ceremonial expenditures do not always reflect a family’s economic standing. This is because patterns of ceremonial participation, and thus expenditures, are changing. Families may now seek status through the acquisition of consumer goods (Erasmus, 1967, p. 65; 1977, pp. 103–112), with, in some cases, a corresponding decline in ceremonial expenses (Erasmus, 1967, p. 59). Other factors also contribute to these changes. For instance, in many areas of Latin America, the civil-religious hierarchy is on the decline. Aside from a growing consumer orientation, inflation (Erasmus, 1961, p. 299), increasing inequalities (Wasserstrom, 1978b, p. 208), religious conversions or change (Erasmus, 1961, pp. 283–289; Hinshaw, 1975; Smith, 1977), community impoverishment because of a declining resource base from population growth, soil erosion, and lack of capital for technological improvements (Smith, 1977), economic growth and the presence of lucrative investment opportunities (Smith, 1977), increasing occupational specialization (DeWalt, 1975, p. 100), and avoidance of duty by the wealthy (Wagley, 1949, pp. 97–98) are some reasons given for the decline of the fiesta system in specific communities. Although the wealthy have been seen as the chief participants in the civil-religious hierarchy, in some cases the community’s poor are now its main participants (Erasmus, 1961, p. 278; DeWalt, 1979, pp. 164–165). Thus participation in the fiesta system could indicate relative poverty as well as wealth.

The following quotations from Srinivas well illustrate the importance of ceremonial expenditure in India:

... villagers were expected to make contributions in cash and kind towards the celebration of such festivals as the Ramanavami. The contributors were divided into four ranked categories: the top category was formed by five peasant lineages, each of whom contributed Rs 25.00 and a specified quantity of rice and other provisions. Households included in the second category contributed less than those in the first, and more than those in the third. The fourth category consisted of those who were too poor to make a contribution. Many of them lived on the verandas of houses owned by others. The above categorization was based solely on the ability to contribute to festivals, and it cut across caste distinctions (Srinivas, 1975, p. 111).

... Conspicuous consumption was prescribed at weddings and funerals, and a rich man was certain to be accused of lacking filial piety if he did not have a lavish funeral for his dead father or mother, and of meanness, if he did not celebrate the weddings of his sons and daughters in style. In either case, his reputation suffered among his equals, clients, officials and others. ‘Is he going to carry his wealth on his head when he dies?’ was a frequent comment. The grandeur of weddings and funerals performed by others, some of them not as rich, would be cited to highlight the contrast. It required unusual insensitivity to local opinion to resist the pressure to spend on such occasions, especially when the pressure was exerted by one’s castefolk, kinfolk, and even one’s own wife and children. Even those who were habitually tightfisted let themselves go on such occasions.

Small landowners were also not exempt from the compulsion to spend lavishly at weddings and funerals. In fact, one of the common reasons for land to come into market was expenditure at weddings and funerals (Srinivas, 1975, p. 112).

9. DIET, NUTRITION AND HEALTH

Diet and levels of nutrition and health have been found to be important and accurate proxies of income distribution (Hunt, 1978). These indicators are also important to local peoples. In Mbeere, Kenya, it is reported that, ‘You can tell a rich household by its cattle: the people there drink milk for breakfast, and they eat meat sometimes’ (Brokensha and Riley,
They show a keen interest in the eating habits of their relatives and neighbours. There is much gossip and criticism, often contradictory in nature, concerning the types of food eaten by others and the amount spent on food.

In folklore there are many tales of rich people who ate greedily and who ignored their poor neighbours. Wilson (1951) describes how the Nyakyusa of Tanzania associate eating meat with witchcraft. The people are said to resent the smell of roasting meat when they have not been invited to share the feast, with witchcraft accusations against the meat-eaters being common. Foster (1967, pp. 161–164) discusses the relationship between food and envy in Tzin-tzuntzan, Mexico.

All the communities that we have examined report differences in diet, with wealthier households eating larger and more varied meals. In Tepoztlan, Lewis (1951, pp. 189–198) observed that wealthier families consumed larger quantities of staple foodstuffs. They also ate with greater frequency the 'more desirable of the locally known food types', such as milk, eggs, cheese, meats, sweets and fruits that are not grown locally (Lewis, 1951, p. 189). Commercially processed foods, including canned goods and white bread, were eaten more often by the wealthier households. Lewis (1951, pp. 188, 191–192) found the consumption of white bread to be a particularly important local indicator of socio-economic status, and a comparison of food budgets between a wealthy and a poor household revealed that the former spent 28 times as much on white bread as the latter. In general, wealthier households spend a larger absolute amount on food, but their food expenditure forms a relatively smaller part of their household budget than among poorer households (Lewis, 1951, pp. 191–194; Fei and Chang, 1948, pp. 92–95; Tax, 1953, pp. 164–169).

Diet within communities tend to vary on a seasonal and even a day-to-day basis. An important indicator of a family's general wealth level is the ability to withstand fluctuations in food supply and prices. Among the rural Hausa of Nigeria, household wealth levels were correlated with their differential ability to survive seasonal food shortages (Hill, 1972). In Tepoztlan, Mexico, except for wealthier households, most families lacked the cash on hand to meet daily food needs. Most families did not '... maintain a uniformly good diet from day to day, even according to local standards' (Lewis, 1951, pp. 188–189). A common saying was, 'When we have money we eat, when we don't, we don't.'

On the whole, wealthier households appear to have more nutritional diets than poorer ones. In part, this is because richer households are able to eat larger quantities of food, especially protein sources such as milk, eggs, cheese and meats, with greater regularity. Poorer households are forced by lack of resources and purchasing power to dilute, use nutritionally-poor substitutes for, or go without, basic foodstuffs. For example, in Sahiwal, Pakistan, those who cannot afford pure milk, dilute it with water (Ahmad, 1977, p. 50). In the Dominican Republic, Sharp (1977, pp. 46–47) states that meals among landless labourers lack greens and contain little protein, while their children... have little or no milk, and the baby's bottle is most often filled with sweetened tea made from the leaves of the bitter orange tree.

The greater purchasing power of wealthier households confers upon them the ability to purchase larger quantities of commercialized processed foodstuffs. However, this does not automatically lead to higher nutritional levels since many processed foods, such as soft drinks, are of marginal, if any, nutritional value. But, as the 'baby bottle' scandal has shown, the nutritional impact of consuming processed foods can be especially disastrous among the poor (Ledogar, 1975, pp. 127–145; Jensen, 1979; Jelliffe, 1979). This was because the poor diluted the milk, used dirty water, and had lower resistance.

As surveys by Beals and Hatcher (1943, pp. 302–304) and Hunt (1978), have shown, the most striking difference between the diets of rich and poor is in cost rather than nutritive value. Hunt's report (1978, p. 9) in particular demonstrates that cost is a more accurate indicator of income. The nutritional differences, and their consequences for levels of health, should not be underestimated, though. In comparing the children of a relatively prosperous family and a poor one, Lewis (1951, p. 193) observed that: ... children in the poorer family are small, thin, pale, and listless, while the two grown children in the family appear well nourished and well developed.

For specific indicators of malnutrition and health, four specific anthropometric measurements are: weight for age, height for age, weight for height, and arm circumference (DeMaeyer, 1975, pp. 69–81). One can also estimate nutritional and caloric values, as Hunt (1978), or Beals and Hatcher (1943), did, from
data gathered on household budget surveys, or one can use impressions, as Lewis (1951) did.

Besides nutritional levels, another indicator of wealth is life expectancy and mortality rates. Using community records, Rothstein (1979, p. 265) calculated that higher-paid industrial workers had an infant mortality which was almost three times lower than their poorer peasant counterparts. The causes of death and the types of illnesses may also reflect, and in turn indicate wealth differences. For example, agricultural wage labourers, who are generally landless or land-poor, and thus economically poor, are often the victims of pesticide poisonings; this is especially true when working on large commercial farms [see Feder (1977, p. 95) for a case study].

Families of different wealth positions are often differentiated by the type of health care they use and by their ability to weather a health crisis. Hunt (1978, p. 14) found that although modern health facilities were considered preferable by the people in Mbeere, Kenya, most people could not afford to use them. In Zamora, Mexico, government social security was unavailable to rural workers. As a result of this:

In case of sickness, the worker or members of his family are not admitted to local hospitals as a matter of common practice (Feder, 1977, p. 94).

Even where health care is free, the costs of transportation, medicines and related expenses prohibit the poor from using available facilities (Sharp, 1977, p. 47; Rodgers, 1976, p. 265; Mencher, 1977, p. 169). Moreover, the expenses can especially set-back the poor. For instance, in the Dominican Republic, Sharp (1977, p. 46) observed that:

...day labourers rarely can hold animals long enough to fatten them: with their continual money shortage, serious illnesses are always forcing quick sales for the cash needed to pay doctors and buy medicines.

Thus, illnesses may have a long-term impact upon a household's financial position.

10. EDUCATION

Another important indicator of inequality is education, which is generally measured in two ways: first, by levels of formal education of each household member; and second, by the numbers of children of schoolgoing age who are enrolled in school. Hunt provides a detailed analysis of the latter from her sample of 137 Mbeere (Kenya) households, examining the proportion of children aged 6–13 who were in primary schools: at the time of the survey 37% of households had no children in school, while 29% of households had all their children in school.

Households that had none—or only a small proportion—of their children in school 'were substantially poorer in terms of their possession of items on the selective inventory'. However, a few poor households are 'prepared to make a high sacrifice in order to put at least one child in school' (Hunt, 1978, pp. 11–13).

Even where—as in Kenya—there are no school fees, extra payments are required for uniforms, books, building funds or special levies, and poor parents are often unable to raise the money for these expenses.

In a recent article on education and inequality, Foster (1980) examines the relationship of education to prestige, occupation and income; differential access, both regionally and locally; education and mobility. In considering differential access to schooling, Foster (1980) analyses historical, social, ecological and family factors. He points out that there has been little research on 'how and why households make incredibly hard decisions to educate their children or not. Are economic factors the most decisive? In any event, just who makes the decision?' (Foster, 1980, p. 209). He also looks at the relationship between socio-economic factors and education, showing that, while there is a correlation, it is a complex one.

Clearly, education is potentially a very useful indicator of inequality.

11. HOUSEHOLD SIZE AND COMPOSITION

Finally, we mention an important indicator concerned with the basic household composition. Many studies have shown that wealthier households usually command adequate labour reserved for the necessary agricultural tasks (Haswell, 1975, p. 175; Kottak, 1980, pp. 196, 275; Vincent, 1971). Conversely, those households that have few able-bodied mature adults are handicapped from the start. For example, households that have only one or two adults, or have a large proportion of dependents (small children, disabled, elderly), are likely to be poor. Households with female heads are often (though not always) disadvantaged, and a disproportionate number of women are frequently found in the poorest households.

Like the other indicators, household size and composition should not be viewed statically. As
Chayanov (1966) and others have pointed out, household size and composition change with the family’s biological life-cycle. Another consideration is that household membership commonly fluctuates as members come and go for various time periods.

12. METHODOLOGICAL ISSUES AND CONSIDERATIONS

(a) Seasonality

Surveys of economic stratification should take into account seasonal differences in production activities, labour allocation, consumption and health levels. Chambers (1981, pp. 15-17) points out that most of the world’s poor live in areas with marked dry-wet seasonality. The wet season is generally the time of hunger, hardships, disease and debt for rural peoples, particularly the poor. Most surveys, though, are said to occur in the dry season, after the harvests are in and the levels of living are rising. The importance of seasonality and ‘dry-season bias’ have been emphasized by the Institute of Development Studies at Sussex, which organized a 1978 conference on ‘Seasonal dimensions to rural poverty’ (Chambers et al., 1979; Chambers, 1978).

(b) Local perceptions

We have constantly stressed the importance of using perceptions and knowledge of local people. They are often keenly aware of wealth differences, and they are able to point out specific, local indicators of these differences. Moreover, local peoples may possess their own wealth ranking system (Cohen, 1970, p. 252), or culturally-established standards of living (Dube, 1955, pp. 167 passim; Nash, 1967), which could be of use to investigators, especially in establishing ‘basic-needs’ standards.

(c) Informant ranking

A useful method employed by several investigators is informant ranking, which involves asking a small number of community members to rank local households according to their socioeconomic standing, or, as Hill (1972, 1977) did, to rank them according to their differential ability to withstand some crisis, such as a poor harvest or a seasonai food shortage.

Generally, the procedure is to choose informants who know most or all of the households being ranked. DeWalt (1979, p. 106), for example, uses informants who were or had been involved in local political office. Informants also tend to be from relatively middle- or upper-ranked households, and they are almost always males (Tax, 1953, p. 217; Hill, 1972; DeWalt, 1979, p. 106). The investigators give the informant cards, each card having a household’s name on it, and asks him to rank them. The informant is usually allowed to choose any criteria. He also is allowed to place the cards in as many or as few categories as he wishes in ranking the households.

Taken alone, informant ranking merely indicates inequality of prestige or differential evaluation by community members (Silverman, 1966). However, several investigators, such as Tax (1953), Hill (1972) and DeWalt (1979), have compared the rankings against the actual distribution of material wealth in the community, and have found a high degree of correlation. Hill (1972), for instance, used a random sample from each of the categories she obtained and cross-checked the rankings with various aspects of landownership, income and consumption. She found a high correlation.

(d) Informant bias

Reliance upon a small number of ‘key informants’ can lead to several methodological problems. Chambers (1981, pp. 13-15) has identified four types of informant bias:

(1) Elite bias – investigators use the ‘less poor and more influential, such as traders, local politicians, large farmers and teachers’.
(2) Male bias – women are not asked for information, although their participation in production, commercial, household and other activities is obviously vital.
(3) User and adopter bias – investigators go to places where activities are concentrated, ‘easily visible, studiable’. Those individuals who have adopted a particular innovation also may receive disproportionate attention.
(4) Active, present and living biases – the sick, dead, elderly and migratory community members generally go unrecorded.

As mentioned earlier, the use of informants should be combined with surveys using random or stratified samples in order to obtain a full view of local wealth differences (Kearl, 1976; Connell and Lipton, 1977; Chambers, 1981).
(e) **Constructing a wealth index**

By counting an individual's or a household's possessions, an index of wealth can be constructed. Each possession is assigned a numerical value, the total representing the economic status of the unit of study.

One can either use an ordinal scale, giving each possession an arbitrary number in relation to the relative value, or use monetary values to establish an absolute scale. The latter method was used by Fleuret (1978) in order to measure the distribution of rich and poor in Lushoto, Tanzania. Specific categories of possessions were counted for each household and then assigned an index number roughly proportionate to their cash value when new. The possessions were classified as shown in Table 4.

| Table 4. |
|-----------------|-----------------|
| **Small possessions** | **Large possessions** |
| (a) Kerosene lamp | (a) Wristwatch |
| (b) Folding chair | (b) Radio |
| (c) Table | (c) Bicycle |
| (d) Bed | |
| (e) Shoes | |
| **House characteristics** | |
| (a) Corrugated iron roof | |
| (b) Glass window | |
| (c) Cement floor | |
| (d) Ceiling | |
| (e) Additional rooms | |

Using the numerical values assigned to possessions, the 30 households had scores ranging from 425 down to zero.

<table>
<thead>
<tr>
<th>Score</th>
<th>Small Possessions</th>
<th>Large Possessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>425</td>
<td>241</td>
<td>65 20 11 2</td>
</tr>
<tr>
<td>350</td>
<td>223</td>
<td>52 18 11 2</td>
</tr>
<tr>
<td>309</td>
<td>188</td>
<td>50 16 4 2</td>
</tr>
<tr>
<td>278</td>
<td>89</td>
<td>39 13 4 2</td>
</tr>
<tr>
<td>255</td>
<td>84</td>
<td>35 13 4 0</td>
</tr>
</tbody>
</table>

The gap between 188 and 89 represents a cut-off point between rich peasants and the remainder. The mean score of 93 reflects the community inaccurately since it is distorted by a few high scores. The median score of 27.5 is a better indicator of the general standard of living.

This scale was compared with a limited sample of landholdings which showed a correlation between rich farmers and their acreage, which was twice that of poor farmers. The index also corresponded to a subjective evaluation by some of the villagers.

Estimating economic differentiation in Mbeere, Hunt (1975) used an absolute wealth scale based on the estimated resale value of household possessions. Each household was arranged on a wealth scale reflecting the percentage of possessions owned by each decile of the population.

13. **CASE STUDIES**

We have selected five representative books that offer particularly valuable insights into the measurement of rural inequality, and we summarize their main contributions below. Our purpose is to present some models of outstanding ethnographic description and analysis concerning rural inequality.


For 20 years Epstein has been making significant contributions to the study of rural inequality. We first summarize some of her most important conclusions, and outline her methods, from her classic study (1962) of Wangala (a 'wet' - i.e., irrigated - village), and Dalena (a 'dry' village). Although this book is perhaps best known as one of the few systematic and rigorous comparative studies in economic anthropology, here we focus on other aspects.

Epstein's methods are meticulously described, her statistics being based on stratified random samples. First, she completed a full census for each village, which was possible as total populations for Wangala and Dalena were 958 and 701, with 192 and 153 households, respectively. After the initial census, each household was given a point value according to the amount of land held, which was further modified by dividing the point value for land by the 'consumption units' per household. Under this system, each individual is allocated a value in consumption units, e.g. 1.00 for a male over 14 years, 0.70 for a child over 6 years but below 10 years. After grouping households according to their economic status, they were placed in three broad categories, one-third of each category being randomly selected for inclusion in the survey. These categories were:

1. 'poorest', 40% (76%);
2. 'middle farmers', 57% (19%);
3. 'magnates', 3% (5%).

The first set of figures refers to Wangala, the second, in parentheses, to Dalena, the dry vil-
Table 5.

<table>
<thead>
<tr>
<th>Value (rupees)</th>
<th>% of households in each category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wangala</td>
</tr>
<tr>
<td>0–200</td>
<td>25</td>
</tr>
<tr>
<td>200–400</td>
<td>27</td>
</tr>
<tr>
<td>400–600</td>
<td>11</td>
</tr>
<tr>
<td>600–800</td>
<td>21</td>
</tr>
<tr>
<td>800–1000</td>
<td>8</td>
</tr>
<tr>
<td>1000 and over</td>
<td>8</td>
</tr>
</tbody>
</table>


detailed breakdowns are provided; this is an example of a comprehensive, careful and valuable survey, which could be used — with modifications — to good advantage in other situations.

Epstein's study is also noteworthy for her imaginative use of wedding expenses (1962, pp. 102–106, 263–266) which are seen as 'the clearest expression of economic differentiation since irrigation'. Because weddings are rare occasions Epstein (1962) excluded wedding expenditure from her sample household, but instead collected information on all weddings — 14 and six respectively — that took place in the two villages during her stay. From the budgets of all weddings, Epstein presents details for selected 'typical' wedding budgets, indicating the wide range of expenses incurred. We need not examine here the specific amounts spent on food, clothing, ornaments etc., but shall look at the totals shown in Table 6.

This presents in a nutshell a dramatic indication of rural inequality, when the richest man in the village spends 10 times as much as the poorest, on the important ceremony when a son is married. 'Economic differentiation displays itself in lavish feasts.' Further statistical tables present results, in satisfying detail, of enquiries into differentiation in several other categories, including:

1. Agricultural capital, with 36% (70%) having less than 400 rupees, and 44% (14%) more than 800 rupees.
2. The distribution of the value of domestic livestock shows 27% (16%) with none, and 21% (7%) with livestock valued at more than 600 rupees.
3. Monthly cash expenditure per consumption unit varies, 13% (19%) spending less than 10 rupees, and 29% (25%) more than 20 rupees.

Monthly income is divided into sources — manufacturing and trading, crop sales, animal products, interest, wages — which also shows the wide range among the villagers.

Epstein revisited her Indian villages, describing minor changes in her book *South India: Yesterday, Today and Tomorrow: Mysore Villages Revisited* (1973). She notes the growing inequality in rural India, deriving mainly from inequitable distribution of land as a major means of production. By presenting a carefully selected small sample, Epstein (1973) graphically illustrates the differences between the four economic strata of the Mysore villages (Table 7).

Table 6.

<table>
<thead>
<tr>
<th>Type of household</th>
<th>Wangala</th>
<th>Dalena</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnate</td>
<td>2866</td>
<td>2402</td>
</tr>
<tr>
<td>Middle-farmers (rich)</td>
<td>2110</td>
<td>8951</td>
</tr>
<tr>
<td>Middle-farmers (poor)</td>
<td>1218</td>
<td>712</td>
</tr>
<tr>
<td>Poorest</td>
<td>272</td>
<td>225</td>
</tr>
</tbody>
</table>

Table 7. *Monthly budget (rupees)*

<table>
<thead>
<tr>
<th></th>
<th>1955</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wangala</td>
<td>Dalena</td>
</tr>
<tr>
<td>Magnate</td>
<td>73</td>
<td>113</td>
</tr>
<tr>
<td>Middle-farmer</td>
<td>34</td>
<td>31</td>
</tr>
<tr>
<td>Poor</td>
<td>31</td>
<td>14</td>
</tr>
<tr>
<td>Poorest</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

The figures, in Epstein's (1973) words:

clearly indicate the process of increasing economic differentiation . . . the wealthiest farmers have become considerably richer . . . (there is) a cumulative process of concentration of wealth in the hands of a small elite . . . all over India, the poor have become poorer while the rich have become richer.


Land, as in nearly all rural communities, is the basis of a man's fortune, but because of prevailing inheritance laws, and changing social organization, estates are not tied-up, so economic status is fluid.

Property is carefully examined and valued. Epstein divides 'non-productive property' into three groups:

1. personal property (clothes, jewelry, bicycle, watch), amounts in value to 17% (16%) of the total;
2. house, valued at 74% (74%);
3. household chattels, worth 9% (10%).

Epstein analyses her data to study the distribution of wealth, using as a measure 'the value of non-productive property per consumption units in the sample households'. The households are divided as shown in Table 5. More
Profits, rent, interest and crop sales provide a large proportion of the high income, and all expenditure items – food, clothing, household gifts – have been drastically reduced for the poor families (pp. 148–172).

Mention should also be made of The Paradox of Poverty (1975, co-edited by Epstein), which examines poverty in relation to population growth. Dube writes of the ‘widening gap between rich and poor in rural India’, where he stresses the need to use a relative concept of poverty: ‘no universal index of poverty has been evolved, nor does this seem possible’. Dube is critical of how the benefits of the new agricultural technology ‘go primarily to the rich and not-so-rich; the poor get little or nothing’. He also criticizes the proposals for greater investment, improved health, and the spread of education. He points out that higher investment, improved health and better education will not remove poverty, as ‘along with rights over land, the ability to gain access to education and to obtain medical treatment and, of course, to invest is a certain indicator of the absence of poverty’ (Epstein and Jackson, 1975, p. 76). This raises the important point that there are positive as well as negative indicators of poverty.


In this remarkable book Haswell summarizes her long-term (1949–1974), detailed knowledge of one village in Gambia, and uses this knowledge as a basis for an analysis of poverty and development. Genieri is a Mandinka village, with a population of under 500 people (1949), which had risen to 771 in 1973. ‘Poverty’ is defined (p. 71), as ‘that point at which there occurs an unbalance between man and land of such an order that men can no longer rely upon the natural fertility of the land for their survival’. The effects of colonial taxes, land policies and introduction of money are succinctly summarized.

What is remarkable about this book is its mass of detail and its convincing presentation of the villagers: the author clearly knows every household. Differences in wealth are indicated by agricultural production, condition of housing, possession of cattle, ability to mobilize labour, off-farm income, and expenditure on clothing and on consumer goods.

Table 14 (p. 187) presents ‘Patterns of income and expenditure (expressed in kilograms of paddy equivalent per person per year for six recorded compounds, 1973–4)’. Summarizing this table, we see the broad picture shown in Table 8.

Once again there is a very wide gulf – 10 times – between the richest and poorest compounds in per capita receipts.

Haswell’s (1975) methodology warrants attention, as it is an admirable balance of the quantitative and qualitative. It is only by knowing a rural community so well, and over a long time, that an outside investigator knows, first, what questions to ask, and, second, how to interpret the answers. She worked with the same Gambian research associate, and even used in 1973–1974 the same local ‘key assistant’ who had originally helped in the 1948–1949 survey. A third survey was conducted in 1962, so there is an unusual accumulation of data.

Among the features of this community are:

(1) Social status favouring descendants of original settlers [cf. Vincent (1971, p. 28)].

(2) Ability to mobilize farm labour was important: one of the richer compounds contained 19 male students of the Koran, all in the 15–30 age group, who contributed both in labour and cash fees (p. 175).

(3) One prosperous compound head was ‘an immigrant settler and veteran of the Burmese war’ whose outside experience, coupled with ‘physical fitness, sheer hard work, business acumen and a high-savings potential’ served

<table>
<thead>
<tr>
<th>Receipts from (rupees)</th>
<th>Three rich compounds</th>
<th>Three poor compounds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Richest</td>
</tr>
<tr>
<td>Food crops</td>
<td>357</td>
<td>540</td>
</tr>
<tr>
<td>Cash crops (groundnuts)</td>
<td>295</td>
<td>353</td>
</tr>
<tr>
<td>Hire of draft animals</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Non-agricultural occupations</td>
<td>77</td>
<td>67</td>
</tr>
<tr>
<td>Money-lending receipts</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>59</td>
<td>82</td>
</tr>
<tr>
<td>Total</td>
<td>808</td>
<td>1075</td>
</tr>
</tbody>
</table>
Table 9.

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Petty capitalist</th>
<th>Capitalist</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of households</td>
<td>239</td>
<td>80</td>
<td>30</td>
</tr>
<tr>
<td>% of households</td>
<td>68</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Acres, total</td>
<td>1434</td>
<td>1990</td>
<td>3806</td>
</tr>
<tr>
<td>Acres, %</td>
<td>20</td>
<td>28</td>
<td>53</td>
</tr>
<tr>
<td>Purchased land, %</td>
<td>4</td>
<td>8</td>
<td>88</td>
</tr>
<tr>
<td>No. of ox-ploughs</td>
<td>50</td>
<td>93</td>
<td>56</td>
</tr>
<tr>
<td>No. of tractors</td>
<td>0</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>No. of cattle</td>
<td>349</td>
<td>525</td>
<td>791</td>
</tr>
</tbody>
</table>

Haswell's (1975) concluding chapter is entitled 'Poverty institutionalized: what prospects for the child born now?'. She is highly critical of the low-productivity agriculture fostered by 'neo-development planners' – (who are unable to) grasp that the great numbers of people in the poorer countries are not an inanimate mass, but composed of individuals with faces, each potentially capable of responding to personal initiatives'. Haswell (1975) ends by stressing the need for international agencies to gather information from all levels of social and economic activity. And this is indeed one of the main aims of our presentation – to heighten awareness of rural differentiation, and to underline the need to understand prevailing inequalities and their causes.


This author examines, within a Marxist framework, the process of class differentiation and capitalist development in Iringa, Tanzania. Four multi-ethnic villages comprising 2065 persons and 349 households, were studied between 1970 and 1972. Research methodology included informal discussions, research assistants living in each village for 52 weeks, stratified household samples and systematic data collection.

Since, according to this author, it is the concentration of the major means of production in the hands of the rich that determines social relations in rural society, he measures the extent of economic differentiation in terms of ownership of the means of production.

Three categories of rural people – 'capitalist and petty capitalist farmers', 'poor farmers', and 'migrant labourers' are analysed in relation to their ownership of means of production. A wealth of statistics is presented in tabular form on the following data (see Table 9):

(1) Landholdings per strata, percentage of households and percentage of the total population. Information on means of acquisition of farmland is also listed per stratum.
(2) Demographic composition and number of working adults per household.
(3) Livestock per stratum and their value.
(4) Capital equipment, tractors, ploughs and their value.
(5) Income of maize production and average gross income per household.

The farmers are ranked according to size of landholdings, since the author considers land 'the most important variable in the overall context of rural society':

(1) capitalist farmers: 40–99; 100–349.9; over 350 acres;
(2) petty capitalists: 15–24.9; 25–39.9 acres;
(3) poor farmers: 1–5.9; 6–14.9 acres.

Although Awiti (1973) summarizes the development of economic differentiation from the beginning of agricultural settlement in the area in the 1950s, he concentrates on the situation at the time of the study. Statistics are used to analyse the economic situation of the farmers and show how the three strata are related to each other through relations of exploitation by the rich of the poor.

Apart from owning most of the productive assets in the community, the capitalist farmers also had other investments such as bars, hotels and lorries. They had ready access to credit, could sell their produce at distant markets where the price of maize was higher than at the local co-operative, hired much labour and did not work on the fields themselves, and were
the only farmers employing modern farming methods.

The petty capitalists utilized very little labour outside the family, but had some outside investments as well. Their economic situation was difficult since they had to sell at the local cooperatives, and if they wanted to transport their produce to markets further away, they had to hire trucks from the capitalists at rates which made such ventures unprofitable for the petty capitalist, but very enriching for the wealthy. This group had some outside sources of income such as shops and land rented out to poor farmers.

The poor farmers rented much land and had to work for low wages on the farms of the capitalists. A transfer of land from the poor to the rich was progressively taking place. The poor were vulnerable to slight environmental changes causing a bad or late harvest. In order to cultivate their land, they had to hire tractors from the capitalist farmers with two negative results: they could only hire tractors after optimum planting season, causing a reduction in their harvest due to too-late planting; and, if their harvest had been low, making it difficult to pay the cost of tractor-hiring (two-thirds of the production cost), they had to give up a certain amount of land to the tractor owners.

Consequently, all economic conditions contributed to buttress the position of the rich, while worsening the condition of the poor.


This author is a well-known British economist-turned-anthropologist who has done path-breaking field research among West African farmers. This study is an analysis of the socio-economic conditions in a single village, Bataragawa, in Hausaland, Northern Nigeria. Hill (1972) investigates economic inequality, poverty and their causes in a combined diachronic/synchronic approach. Population in the study area at the time of research (1966–1967), amounted to 1395 persons, of whom 88% constituted her sample of 171 farming units. Data on economic and social matters were obtained through participant observation, interviews and land-use mapping.

Cultivation comprises mostly grain, cowpeas and ground nuts, both for sale and subsistence. Although neither land scarcity nor any landed classes exist, the author argues against a simple demographic approach, which sees economic inequality as a result of the number of workers per household. Instead, she stresses personal and economic heterogeneity within the community.

In order to analyse the complex economic structure of the community, she adopts a combined approach with many different indicators. An income/expenditure approach is discarded since prices vary considerably over time and space, many transfers take place outside the market, and farmers are generally secretive about their economic transactions.

Instead, a group of knowledgeable elders was invited to rank subjectively the standard of living among the 171 farming units, according to ability to withstand the shock of a very late or poor harvest. Four groups were thus designated, those who were:

1. actively assisting others with gifts and loans;
2. neither suffering nor helping;
3. suffering somewhat;
4. suffering severely.

There is a good correspondence between these groups and the data on economic conditions collected by Hill (1972). She provides a wealth of statistics, most of which are presented in tabular form. The material is presented in two sections: one dealing with inter-group differences and the second with intra-group variation. In the first section the following data are presented:

1. population characteristics and number of working adults per economic group;
2. ownership of bush land and manured farmland per group, farming unit, head and number of working males;
3. means of acquisition of manured farmland:
4. production of millet per group, per capita, and per farming unit;
5. livestock owned;
6. ownership of granaries per economic group, farming unit, and head;
7. machinery: bicycles, ground nut decorticators, ox-ploughs, sewing machines per group, farming unit, and head;
8. ownership of movable property by men in group one.

In the second section she examines the same data with respect to variation within economic categories, which are then utilized in order to discover trends explaining differences in economic status (see Table 10).

Again, the validity of the subjectively ranked groups is corroborated by the intra-group statistics. Hill (1972) is especially interested in examining the relation between non-farming occupations (which most farmers pursue in some form), and economic group; how property ex-
changes influence the economic status of the farmers; age and number of working sons, and inequality.

Age and economic status are strongly associated, while the number of working sons has a lesser effect on economic differentiation. Groups one and two are mostly buyers of farmland, while groups three and four are sellers. Transfers of land from poor to rich tend to widen the gap between the upper and lower strata. The less well-off farmers are vulnerable to a host of negative influences such as famine, debts or social obligations which force them to sell land.

The author concludes that rich men are able to pursue all their basic economic activities on a larger scale, and have more remuneration from off-farm occupations, than poorer individuals. In order to examine the rigidity of economic stratification, a detailed analysis of long- vs short-term stability of economic status is provided. Over a 10-year period the rich men are able to continue to rise in prosperity through financial manipulation such as selling grain when the prices are high, hence the importance of storage (granaries) as an indicator of wealth. Members of groups three and four have difficulties keeping their sons at home to work on the farm.

Oscar Lewis, Life in a Mexican Village: Tepoztlan Restudied (Urbana: University of Illinois Press, 1951). After 30 years, Lewis's restudy of Tepoztlan, Mexico, still remains an indispensable source for those interested in community wealth differences, village politics and factionalism, local agricultural systems, and other aspects of rural life. Moreover, Life in a Mexican Village: Tepoztlan Restudied is valuable as a model for researchers planning to carry out community studies.

Tepoztlan had initially been studied by Redfield (1930), during the late 1920s. In fact, Redfield's (1930) work was the first anthropological study of a Third World peasant community. The study emphasized the homogeneity, harmony, stability, and unity of community life. Later, Redfield (1941, 1947) would use the term 'folk society' to describe the sorts of social relations he encountered in Tepoztlan and other peasant communities.

Lewis (1951, pp. ix–xxvii) carried out field research in Tepoztlan during the 1940s. He came equipped with different methods and theoretical interests from Redfield. Instead of relying solely on data gathered from a few informants and participant observation, Lewis (1951) used census data, schedules, questionnaires, sampling techniques, intensive case studies of representative families, local government records, and other historical documents. His methods were systematic and rigorous. They also took into account local people's perceptions and knowledge. In his determination of wealth differences, Lewis (1951, pp. 173–175) combined local insights with sociological methods, to construct a point scale based on local forms of wealth in order to rank the household's economic standing. Lewis' (1951) use of photography and the excellent drawings by Alberto Beltran were important in illustrating wealth differences, such as showing the contrasts between different housing types.

The descriptions of community life presented by Lewis (1951) and Redfield contrasted greatly. Lewis (1951) did not encounter the harmonious and homogeneous 'folk'. Rather, Lewis (1951) describes the landlessness, poverty, wealth differences, rampant individualism, the local political and social struggles, and other features that he found endemic to Tepoztecan life. Moreover, Lewis (1951) viewed these aspects of life from a historical perspective which took into account the linkages between the community and the outside world. In brief, it was almost as if Redfield and Lewis (1951) had been to two separate places [also see Goldkind (1965), and Halperin (1975), for a similar experience with Chan Kom, another community studied by Redfield].
14. CONCLUSION

We have not attempted to include all indicators, as the list is endless. For example, Srinivas (1975) cites several cultural-specific differences between rich and poor in his Indian village. ‘Only rich landowners can afford to leave alone land where their ancestors are buried’ (1975, p. 115). Poorer people have to plough over the land after a few years. ‘Only the richer, more sophisticated villagers wore collarless shirts with “proper” sleeves with buttons and buttonholes’ (p. 253). The poor had collarless shirts, the sleeves of which did not taper at the wrist, and did not have buttons.

The better-off villagers felt that self-shaving was polluting’ (p. 254), so they engaged a barber. The poor, who could afford neither razors and blades, nor a barber, seldom shaved.

We have stressed that while major indicators such as land are nearly universal, there is a need to devise a scale that is appropriate to the particular community or region one is studying. There are many gradations in combinations of indicators, from very rough-and-ready, easy-to-measure items that may be used to divide the community into broad classes, to more finely tuned indicators that need more resources (time, money) to measure.

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