

RURAL HUMAN RESOURCES AND RELATIVE POVERTY: COMPARATIVE STUDY FROM RURAL UGANDA AND ETHIOPIA

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Abstract

Created by The size and the dynamics of a population at a given time and social space has geo-political, economic and social significance. In the context of development studies, it is of vital importance on both the demand and the supply side of sustainable human development to enhance human welfare and expand the frontiers of choice.

The notes reported on in this article emerged from two major studies consisting of over 1,000 households in rural Ethiopia and Uganda. While the Ugandan study primarily focussed on structural adjustment and rural poverty, the Ethiopian one compared the management of three small forests by the state, the community and the private sector for sustainable management of the natural resources and the environment. Both contained data on the demographic profile of the rural communities on which the notes hereunder are based on.

The analytical categories, in both the Ugandan and the Ethiopian studies, have very similar consumer labour ratio [CU/LU] suggesting an across the board balancing decision between the level of consumers and potential labour providers in the household economy. At the micro-level, there is a positive relationship between family size, acreage cultivated and socio-economic status. When the size of holdings are adjusted for consumer and labour units, that is when the holding sizes are divided by consumer labour ratio, however, the differences in holdings between the different analytical categories in both Ethiopia and Uganda disappear. Taking the size of holdings as a proxy for output, family size expressed in labour unit is the independent

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variable. This suggests decisions by farm households balancing the size of consumers, workers and holding.

Given the state of technology, high mortality rates on the one hand and constricted labour supply [partly of the very low participation of male labour in Uganda and migration in the study area in Ethiopia] in the supposedly 'labour surplus' economies, peasants households appear to make rational decisions about the size of their families. Coupled with significant levels of awareness, some applications of family planning and expanding educational opportunities in both Uganda and Ethiopia, the studies suggest a potentially feasible social foundation towards family planning. Policies to raise per capita incomes and the level of living in general could obtain better rates of return in the generation and dissemination adaptable and adoptable farm technologies, price stabilization and expanding the infrastructure base.

1. Introduction¹

Following the Second World War, capitalist western economies experienced rapid economic growth and concomitant falling population growth rates raising affluence to the middle and upper classes. On the other hand, given the vast population size of Asia growing without commensurate per capita incomes leading to poverty and the mesermization of labour, strategists postulated a forthcoming "Yellow Peril" as a threat to Western geo-political interest. With rapid rates of economic growth in Asia in general and East Asia in particular in the last quarter of the twentieth century, Western economies are now confronted by the competitive threat of Asia in specific economic sectors which are bound to graduate and diversify with continued changes in the structures of the world economy.

By and large, Asia has now transformed the then co-relation between high population growth and poverty at a macro- level towards a potential for an expanded domestic market and decelerated population growth rates channelling the benefits of growth towards increasing per capita incomes. Today, in most parts of Asia, from being an economic liability, population size is becoming a social asset to further economic growth and in fact becoming a manifestation of the share of a chunk of world power.

¹ The writer wishes to acknowledge the financial and logistics support by Action Aid Uganda, the International Food Policy Research Institute [IFPRI] and the Ethiopian Development Research Institute [EDRI] for the initial studies from which these notes are derived.

The march of China and to a lesser extent India from regional to world superpowers are cases in point.

Given the low and in some cases negative growth of per capital incomes in parlance with high population growth in post-independent Africa, it is not uncommon to explain poverty by "breeding like rabbits".¹ This is despite celebrated works such as that of Boserup [1965 : 1981] which demonstrated population growth as a factor of increased production and productivity in African agriculture, a position more recently resurrected by Murton [1997] in Machakos district of Kenya. In the face of rapid population growth in an already densely populated area, Gurageland, [Muluneh Woldetsadik: 2003] has argued that both natural resource degradation, a potential accelerator of poverty and conservation measures to mitigate them have been at work. For Ethiopia, rather than a simplistic linear connection between population and poverty, the issues have been located in a broader analytical framework. [Dessaiegn: 1994] examining the relationships between land, population, the environment and their implications for poverty.

In the context of development studies, the profile of labour is important both on the supply and demand side of the rural economy. Labour is important both as a critical input and as a target for growing without poverty². Analysis of its dynamics, quantity, skills, age and sex composition together with its social division of tasks are important to appraise its potential and actual productivity. The ratio between workers and others who are dependent on the economically active population together with the state of the art of production determine the per capita available for consumption and investment.

One of the strategies for growing without poverty in the medium and the long term is an understanding of and a positive and voluntary intervention in the realm of population dynamics. At a micro level, the interface of relative poverty with population, education, social assets and incomes and their variations between socio-economic groups, natural resource space, male/female and young/old households will hopefully shed some light on the debate and their policy implications for population policy to grow without poverty.

¹ Uttered in national Parliament by the then Attorney General of Kenya in the early eighties, Charles Njonjo, which cost him his post for political incorrectness.

² This is in contradistinction with "reducing poverty" which is now an all pervading terminology in the aid industry. Given current low level of incomes in countries like Uganda and Ethiopia, rather than creating and then reducing poverty, mirroring the economic and social experience of their donors, today's poor countries can shape institutions & policies to grow without poverty dispelling the supposed trade off.

The notes here are culled from village studies in Uganda and Ethiopia from 1997-2001 which were designed to explore some of these themes¹.

1. UGANDA

Demographic Profile

The total population of 1854² in 355 households was almost equally divided between the sexes against a national average of 50.8:49.2 in favour of males. The average household size of 5.5 is higher than the 4.8 national rural average for Uganda [IHHS: 1994]. The most adult population is a small proportion of the total.³

Overall, there is one adult per two people in the young and old age group. Among the poor, even when the lower percentage of those in the young age is compensated for by the elderly category, their dependency ratio is significantly lower than the average and better off households. Similarly, poorer villages have a lower dependency ratio partly reflecting the smaller family size among the poor. Due to the presence of more of elderly and to some extent children, female headed households have a significantly higher dependency ratio compared to the male headed ones.

¹ The Ugandan study examined the impact of the then ongoing structural adjustment in seven villages from which hundred households each were randomly selected. The Ethiopian one was a comparative study of state, private and community managed small forests which interviewed a random sample of hundred households from each group. As a prelude to the main focus of the studies, both collected data on the demographic characteristics of the sampled households. The household questionnaires were preceded and interfaced with Participatory Rapid Appraisals. In both studies, the sample frames categorized households by socio-economic status [better off, average and poor], female/male, and old/young headed households and examined the differences and their policy implications with respect to selected variables. The Ugandan study was further dis-aggregated by district, regions [Apach & Lira in the North, Soroti and Iganga in the East, Mpingi in the environ of Kampala at the Centre and Ntungamo and Busehnyi in the West] and status of villages – poor and better off. Rather than from a pre-determined asset or income dividing line, the socio-economic categories were derived from local perceptions and classifications thereof. For a full accounts of the studies, methods and results, see [Tenkir Bongor: 1999a, 1999b & 2000] for Uganda; and [Tenkir Bongor: 2004] and the forthcoming FSS Monograph for the Ethiopian study.

² The size of reported total population varies by small margin depending on the variable under consideration. This is because of the non-completion of questionnaires in some sections.

³ The proportion of the adult population [>20 years old] both in the studied districts and Uganda as a whole is low at 38.1% and 37.2 % respectively giving a dependency ratio of 1.96 in the former. When the elderly are excluded, those considered to be the most economically active, between the ages of 20-59 years old make up only 1/3 of the total population. Children below the age of 15 make up just over half of the total population.

Contrary to the popular assertion of African households made up of extended families, most live in nuclear families. 6% of the total are one person households making up 1% of the total population.¹ 41% of the households have less or equal to 4 members but with only 22% of the population. The mode household size is 6, which on its own makes up 15% of the households. Household size of 6 is also the median for the total population. Those with 10 and more people, mostly found in better off and average households make up 6% of the households but 13% of the population.

The average family size of 7.9 and 5.9 in the better off and average households exceed those of the poorer ones by 80% and 35%, respectively. At an average of 4.4 persons per household, poor households in the studied villages have 20% less people than the Uganda average. The causal relationship, especially whether this is the result of conscious planning to meet the demand for production by the better off and limiting size by the poor not to worsen the per capita availability of consumption, needs to be examined. At a lesser significant level, better off villages also have their household size greater than the poorer ones by 9%.

The relatively economically better off central and western regions have a higher average household size with as many as 25% living in households of more than 8 people. Unlike post-agrarian societies, where the economic, sociological, spatial and age cycle better offs have less family size compared to the relatively poor, the converse appears to be the case in rural Uganda. **There is direct relationship between economic status and family size at all levels - socio-economic grouping, status of villages and regions.** The risk of high mortality, more hands for subsistence where the input of male adult labour is the household economy are limited appear to militate towards larger family size by the better offs.

Depending on the age and to some extent the sex composition, households of the same size could vary in their consumption demand and supply of labour. One way to standardize these differentials is via a comparison of the head count household size on the one hand and where individuals are weighted into units for consumption demand [Consumer Unit - CU] and labour supply [Labour Unit - LU] on the other². On

¹ This appears to be a high ratio in rural context requiring further investigation and targeting for service provision as many such households are inhabited by the elderly.

² For consumer units, taking 0-1year =0.3 units, 2-3=0.4, 4-6=0.5, 7-8=0.7, 9-10=0.8, 11-12=0.8, 13-15=1.0, 16-20=1.2 and >20=1.0 and for labour units taking 0-4 years =0, 5-9=0.25, 10-14=0.5, 15-19=0.75, 20-50=1.0 and >60=0.5. For details of the derivation, see Guveya, E. 1995. Comparative Socio-economic

average, three out four household members constitute full consumer units. As was exemplified in the dependency ratio earlier, only one out of two makes up a **potential**¹ worker. Although district and therefore regions, villages, socio-economic groupings, male and female headed, young and old households may have varying household sizes, and therefore of consumer and labour units, **all have very similar consumer labour ratio [CU/LU]** suggesting an across the board balancing decision between the consumers and potential labour providers in the household economy.

Education

Together with age and family size, another important attribute of a population is its educational levels. Apart from its economic benefits in terms of employment and more openness for innovations and increased productivity, it could be an important input in family planning. Of the total population of over 5 years, 20% reported to have had no education including pre-primary literacy. This means that about 80% of the population² has some form of education with the level breaking down into primary school level 64%, secondary 10% and above secondary 2%. By far the largest proportion had primary level education no doubt enhanced by Universal Primary Education [UPE]³ programme of the Ugandan government for the young age group. Although the proportion of illiterates in poor households is higher at 26% [against 20% for all], perhaps due to UPE, the primary level enrolment rate of their children is at par with the other socio-economic groups.

However, the poor appear to lose out decisively beyond the primary level. Whereas the proportion of post-primary education levels is 21% and 15% respectively for the better off and the average households, the corresponding rate in the poor households is only

Analysis of the Production of Leucaena and Cassava Feeds For Livestock Enterprises in the Communal areas of Zimbabwe. MSc Thesis, University of Zimbabwe. A rigorous study compared to this was undertaken by Chayanov in the context of pre-revolutionary Russian peasant agriculture. For an in depth analysis of the same based on data in Arsi, See [Tenkir Bongor. 1987].

¹ This is particularly so with male adults. Although they will no doubt figure as full consumers, more than 80% of labour in food production is provided by women and children.

² Cf with [Appleton & Mackinnon 1995] who reported that at national level, 43% of adults in the bottom expenditure quartile reported no form of schooling. Education is already a felt demand as attested by the fact that even during the period of civil strife and economic mismanagement there was some progress in education. Hence the high literacy rate reported here may not be inconceivable.

³ This was a World Bank grant supported programme where children up to four could be enrolled in primary schools free of fees. Unlike in Ethiopia, kids in Uganda used to be charged some top up fees even in government schools.

10%. Variation between groups is even more pronounced between villages at all levels of educational attainment. Reflecting their historical disadvantages, female headed households have lower levels of education at all levels. Except at post-secondary level, there is no significant difference between young and old households. Since a substantial portion of the current [during the period of the study] young adult households were of school age during the civil wars in the country when most schools were not functioning or if they did with skeletal services, they have more illiterate household heads. At primary and secondary levels, however, which include most of their children, they are at par with the older household groupings. Those with larger family size are not only economically better off, but also significantly more and better educated.¹

2.3. Land and Livestock

Next to labour, the most important resource determining the well being of a rural community is land including its quality, quantity, access and the terms of its use. While most of the rural poor in Asia, Latin America and parts of Africa are high rent paying small plot cultivators and/or agricultural labourers, an overwhelming majority of the studied households cultivate own holdings. Of those responding to the household questionnaire, none mentioned land as a binding constraint. This is understandable as evidenced from low land rents in most parts of the country². Of the 325 households who reported to cultivate [or dig in the local translation], 94% owned, 5% rented and 1.0% leased. Nearly 60 % of the holdings³ are less than 2 acres [under a hectare] while as much as 84 % are below 5 acres.

A statistically significant difference in the size of holdings exists only between socio-economic groupings. While as much as 69% of the holdings by poor households are less than 2 acres, the corresponding ratio for better off households is only 35%. By contrast, 46% of the holdings of better off households are more than 5 acres with 27% of their total being more than 10 acres. Among the poor households, only 8% are greater

¹ It should be emphasized that while educational attainment confers a potential to lift oneself and family from the abyss of poverty, the realization of such goal is more a function of the relevance of the education to improve employability and equip the learner with embodied skill to enhance productivity in the local and national economy.

² During the field study period [February 1997], in the better off village in Lira district, located about 18 kms from Lira Town, an acre of land was reported to be rented for Ush 10,000/year which was worth 40 kgs of maize during the post-harvest season. Assuming a yield of 2000 kgs in two seasons, at the then prevailing price of Ush250/kg of maize, the rent works out as 2% of the gross value of output.

than 5 acres and 2% more than 10 acres. The average holding size of 7.3 acres among better off households is more than 3 times that of the 2.3 acres by poor households.

As the socio-economic groupings are fairly distributed between poor and better off villages, although there is some difference in the size of holdings in favour of the better off villages, it is not statistically significant. There is no difference in holdings between male and female headed households. On the average, older households have 65% more holding than their younger counterparts. **The above limited indicators of** differentiation by socio-economic status, region and life cycle inferred from the distribution of holdings, however, is significantly reduced when controlled for household size implying a direct relationship between household and cultivated land size. Given that land is almost a free resource in most parts of the studied villages, it appears that household size is the independent variable explaining size of holding under cultivation and therefore of total output.¹

The consumer unit per capita holdings of better off households is only 29% higher than for all households and 43% more than that of the poor. There is no difference between the poor and average households. That between the poor and the rich villages is almost the same. At regional level, except for the East where there is a general scarcity of land pushing the per capita holdings lower, differences are also minimal. Given the very limited rate of labour hired even by the better off households and the similarity of crops grown and farming technology employed, the level of differentiation based on holdings are minimal. Such differentiations appear to arise from the number of livestock units.

Livestock serve many economic and social functions in the rural household economy. Meat and milk provide subsistence and streams of incomes for consumption and/or sale. The livestock themselves are stores of value serving as savings. Since feeding and care increase their temporal value, they are the most important avenues of investments comparable to urban dwellings by the middle classes. Finally, they serve as stand by liquid assets which can be disposed off if and when critical demand for cash arises. Given the constricted labour supply for arable farming, the availability of land and more productive varieties of animals, livestock farming offers an important focal point in the drive towards the modernization of agriculture.

¹ The study also demonstrated a direct relationship between labour and land productivity increasing the per capita income of better off and larger households.

In the studied villages, apart from goats, more than 80% of the households have no ruminant livestock¹. A good beginning is the relatively reasonable number of lactating cows with a mean ownership of 2 by the few who have them. Among such households, about 1/4 of the livestock ownership reported are of improved varieties. 20% of those with lactating cows had more than 5 indicating the germination of the seeds of commercial dairy farming in rural Uganda. The relative affluence and social differentiation and therefore the potential for the production and reproduction of poverty in Western Uganda is exemplified by the higher percentage of the ownership of all types of livestock especially lactating cows, oxen and other cattle.

2.4. Awareness and Adoption of Family Planning Methods

Given that the volume of output is a function of the size of labour units, to track the probable trend in population dynamic in the future, it is important to gauge the awareness and attitudes to methods of family planning. A relatively high, 66% of the households in the 7 districts, are aware of family planning methods. There is a clear difference between social groups about both awareness and applications. Awareness decreases from 69% among the better off and the average to 61% by the poor and from 70% in better off villages to 63% in the poor villages. As might be expected, the central region, closest to Kampala has the highest rate of awareness followed by the West. In contrast to its higher level of educational attainment, at 51%, the North lags behind. In contrast to regional and village level variations, poor households only marginally lag behind both in terms of awareness and use of family planning methods. The difference between male & female headed, young and old households is even less.

However, awareness does not seem to be operationalized into actual family planning since those who reported to have adopted family planning methods are a meagre 19% of the studied households or only 29% of those who are aware. The corresponding rates of application as a percentage of awareness by socio-economic grouping are 22%, 20% and 17% among the better off, the average and the poor respectively. From the sketchy data available on the adoption of family planning practices, the better off appear to use family planning methods more than the average and poor households. Slightly more of

¹ This is in contrast with the Ethiopian case, where the mixed farming system with food from *enset* as the staple diet is supplemented by animal products and compost as a vital input as natural fertilizer.

male headed and old households are aware while the young ones have a slight edge when it comes to applying the methods.

Of the 147 household heads who recalled their first year of awareness, 23 predate it to 1990 with 3 as early as 1960. As in awareness about extension, over 80% reported to have become aware in the last 5 years. It is interesting to note that given the cultural sensitive nature of some of the family planning methods, the major sources of the awareness are informal channels such as neighbours and friends [61%], churches [14%] and radio [13%]. The more formal and person to person channels for the dissemination of such information, clinics and hospitals, stand at a poor fourth [11%]. The use of the channels are equally distributed between different social groups.

Respondents were first asked to discuss the advantages and disadvantages of having large family and polygamy, which have direct bearings on the size of households. To assess attitudes and to draw inferences about future population dynamics, the households were requested to spell out the advantages and disadvantages of large family size. Of those who responded [155], over 1/4 said that there was no advantage at all. Proportionately more of the better off and average households, better off villages, the Northern and Western region said so. When asked about their preferences of family size and the related choice between polygamy and monogamy as conjugal relationships, only 2% upheld traditional values when they said polygamy was a better option.

On the disadvantages of large families, 59% said that they were difficult to maintain and feed, problems of payment of school fees [14%] and generate high expectations [2%]. Among the social factors, conflict/hatred [17%] and the difficulty of meeting social requirements [50%] were cited. The better off did not at all consider earning social respect from large family size. Despite their higher levels of welfare, they emphasized the economic disadvantages of a larger family size.

Although at low percentage levels, relatively more poor households put high value on large family size as a source of labour and for its traditional role as a source of respect. Better off households, villages and the Eastern region are more emphatic about the outright disadvantages. Problems of fees figure more prominently in the poor villages and the Western region. Female headed households are more averse to large family size for its economic and social costs. There is no significant difference between old and young households. Of the 137 households who responded to the question, on balance

as to which was the chosen strategy between a small and a large family size, 82% preferred small family size and only 11% opted for large family with no significant difference between the social groups. Better off villages & the Central Region pronouncedly preferred smaller family size.

On a related question about the advantages of polygamy, of the 134 households who responded, about 59% said there was no advantage in polygamy; 16% said it supplied more labour and 6% said it was good culture. Again, the aversion was more forcefully expressed by better off households and villages and the more urbanized central region. The disadvantages cited were, source of conflict [46%], problem of caring for the wives and the family [33%]. When they were asked to choose between the polygamy and monogamy, an overwhelming majority [91%] preferred monogamy. Just over half of the 310 respondents said that they had held these views for sometime now.¹

3. Ethiopia²

3.1. The Demographic Profile

The three main bases of the economy are labour, land and remittance from migration. Both land and migration can be made effective source of livelihood through labour. The 300 sample households from which the data was collected, are located in 24 villages. Although equal number of households were sampled, as shown in the following table, *Kueter Gedra* has by far the largest population size with the highest number of households and people per village. Its average household size of 6.7 persons is higher than the average of 5.4 persons by 24%.

Overall, 11, 29 and 60 percent of the households are under better off, average and poor socio-economic status respectively³. Nearly 40% of the households have 1-4; 59%, 5-10 and 1% >10 people. As in the Ugandan study, **the larger the family size,**

¹ Since such discussions are culturally loaded, they have to be taken with a pinch of salt as the respondents could possibly say what the 'modern' interviewers may want to hear.

² The three local forest areas from which the discussion below is extracted, *Kueter Gedra*, *Gece* and *Ambussies* are located about 175, 185 and 195 kms respectively south-south-east from Addis Ababa on the Addis-Jimma highway taking off eastwards from the 152 kms peg from the town of Welkitte.

³ 87% of the households agreed with their socio-economic designation as better off, average and poor by the community under the PRA. Of the remaining 13%, nearly ¾ downgraded & upgraded their status by one position. The remaining did so in equal proportion by two grades.

the higher the socio-economic status of the household. Thus, whereas 79% of the better off households have family size of 5-10, the corresponding size for the average and poor households is 63% and 54%. Family size of 1-4 persons make up only 18% for the better off, 35% and 46% respectively for the average and the poor. Nearly 2/3 of the households are headed by the over 40 years old and 14% by the over 60 year old. 70% are male and 30% female headed households.

Table 1: Distribution of Population of the Sampled Households

Forest	Village	Population	Mean HHS	% of Population
Gece	9	491	4.9	31
Ambussie	9	450	4.5	28
Kueter Gedra	6	669	6.7	42
Total	24	1610	5.4	101

XHHS = Mean Household size

There is a significant difference in the share of female headed households between the three forest communities ranging from only 13% in *Kueter Gedra* rising to 41% in *Gece*. **Proportionately, more of the older and male headed households are in the better off and less in the poor category.** Among the three forest villages, **although *Kueter Gedra* has the highest density of population, it also has the highest number of better offs and the least proportion of poor households¹.** Whereas 55% of the total population and 60% of all the households live in poor households, for *Kueter Gedra*, it is slightly less than half.

Table 2: Socio-economic Status of the Population

Forest	Better off		Average		Poor		Total	
	No	%	No	%	No	%	No	%
Gece	54	11.1	139	28.6	293	60.3	486	100
Ambussie	5	1.1	185	41.7	254	57.2	444	100
Kueter Gedera	158	23.6	177	26.5	334	49.9	669	100
Total	217	13.6	501	31.3	881	55.1	1599	100

²⁰ The causal relationship, however needs further investigation. As *Kueter Gedra* scored much higher than others in the maintenance, benefits and Willingness to Pay [WTP] for the sustainable use of the forest

Female headed households make up 30% but proportionately more of them [35%] belong to the poorer households. Where better off households make up 11% of all the sample, only 3.5% of the female headed ones fall in this category. By contrast, while the 60% of the households are under poor category, the equivalent for female headed households is 73%. Female headed households have smaller family size with an average of only 2/3 [3.9 persons] of the male headed ones [6.0]. Again as in the Ugandan case, **female headed households are therefore slightly poorer, smaller in size and less educated**¹.

Education

Of the total population of above 5 years of age, nearly half are illiterate [cf only 20% for Uganda] ranging from 64% in the predominantly Moslem *Ambussie*¹ to 40% in *Kueter Gedra*. Only 7% had attained some level of secondary education while the rest had acquired primary/middle school education. However, there is a wide disparity by socio-economic status. Thus, while only 28% of the members of better off households are illiterate, the corresponding rate for average and poor households is 50% and 54% respectively. When it comes to age and gender of head of households, the gap in the literacy rate becomes even wider. With only 28% overall literacy by household heads, the literacy rate for old and female headed households is only 10% and 7% respectively. 75% of the household heads of the average and poor socio-economic categories are illiterate. The rate for better off household heads with more people per household is 50%.

Migration

44% of the households have members who have permanently settled outside. As with semi-migrants, proportionately, more of the permanent migrants originated from better off households and least from the current poorer households. While 53% each of the better off and average households have at least one permanently settled relative outside, the rate for poor households is only 38%. This perhaps explains the

resources & the environment, it suggests a positive relationship between population size, natural resource and environmental conservation.

¹ See section 3.2 below for the latter.

causation from success in migration towards improvements in the rural household of the migrant².

More than half of the total households have semi-migrants. The rate from the better off households is double the average. Whereas about half of the population above 5 years of age among the permanently residing population is illiterate, only 14 % of the semi-migrants cannot read and write. Most migrants had completed middle level primary and secondary education. The forest areas export their relative elites in search of jobs in the urban areas outside of their locality. Nearly 2/3 of the reported permanent migrants are males. **Hence, although the overall male female breakdown is 49.3% and 50.6% respectively, in the age group of 20-50 years among the studied villages, females by far outnumber males.** Like in Uganda, the larger the family size, the more educated and economically better off. In the Ethiopian case, however, migration triggered by higher population density in *Kueter Gedra* appears to be a contributing factor. As we shall see below, in both cases, livestock, rather than land, appears to be the bases for the limited social differentiation between households.

Land and Livestock

Land tenure in the traditional system consists of family holdings referred to as *yab afer* [soil/land of the father] communally held commons [mostly by geographical contiguity and sometimes by blood relation] for grazing and natural resources such as forests, water village tracks and highways held by village and/or clan(s)³. As with the other so-called *enset*⁴ cultures of Southern Ethiopia, similar to Uganda but for a different reason, family plots are extremely small appearing more as gardens⁵ than as

²¹ Since the introduction of secular education by the government and European missionary societies, modern education has been perceived as 'Christian' by the Moslems. As in most parts of the country, the participation rate of Moslems is much lower.

²² This is the more so because, more than others in Ethiopia but similar to many other African social formations, the urban-rural rural-urban, inter-personal, inter-clan and sub-clan link among the Gurage is very strong in terms of remittances, physical presence during holidays and networking.

³ Although this has been reformed towards the equalization of holdings which included occupational castes following the great Agrarian Reform of 1975, much of the traditional system operates *de facto*.

²⁴ *Enset edulis*, the subsistence food crop par excellence of Southern Ethiopia which is to large extent drought resistant resulting in high population densities in the long term.

⁵ In Uganda's *shamba* which literally means garden in Swahili, the limit for small farm size is set not by shortage of land but because of the limited labour by women and children and the hoe as the main factor

farms which are observed in the rest of highland Ethiopia. 55% of the households have less than 0.5 hectare plots. Only 6% have more than 1 hectare. Save for the high carrying capacity and drought resisting nature of the plant, *enset*, and *enset* areas are very much pressed by high population density. In almost all cases, they are one of the major labour exporting regions of the country.

Within the minute sizes of holdings, there is a significant difference between the adjacent inhabitants of the three forests. With holdings measuring less than half a hectare accounting for 64% and 48% of the household plots respectively, the middle altitude *Gece* and higher altitude *Kueter Gedra* are more densely populated. By contrast, in the low lying *Ambussie*, only 9% are less than 0.5 hectare. **Although older, male headed and better off households have more labour, due to the constraint on the supply of land, there is no significant difference in the size of holdings with the younger, female headed and poorer households.** With limited scope for the intensification of agriculture through investment of labour in land, more of the labour endowed with education enters the informal national labour market through migration.¹

Rather than land and its agricultural outputs which are constrained by supply, like in Uganda, it appears that a more differentiating variable among the households is the ownership of livestock. The community as a whole has on average 1.13 of calves, 0.83 heifers, 0.84 dry cows, 0.84 lactating cows, 0.5 sheep and 0.15 horses. Whereas 60% of the better off households have over 5 cattle, the respective rate for the average and poor households is 43% and 20%, respectively. Overall, only 16% of the households have over 3 livestock units. In the more densely populated *Keuter Gedra*, the ratio is 32%. That livestock, labour and remittances rather than land are the main differentiating variables is borne by the fact that **the most densely populated *Kueter Gedra* has better off households, the highest ownership rate of livestock units and remittances.**

of tillage. Among the *enset* cultures of Ethiopia, the small size of the plots is accounted for by the very limited supply of land compared with population. The Gurage term *gone*, [backyard] is similar to *shamba*.

¹ Although the *enset* dependent population in Ethiopia accounts for over 10 million, state sponsored research in this realm has been very limited and sporadic. Recent ventures in horticulture such as apples by a supermarket firm in Addis Abeba may usher in some dynamic in the farming system.

Awareness and Application of Family Planning ¹

Given the current high absolute size and the rate of population growth in the country, farmers were asked to express their awareness about family planning and its application. Overall, 62% expressed awareness while a far less 24% say they apply it. At 66% and 29% respectively for awareness and application, Uganda is only slightly ahead.

Table 3: Awareness and Application of Family Planning (%)

S No	Regions	Awareness			Sample size	Application			Sample size
		NA	A	T		NA	A	T	
1	Tigray	71	74	73	451	21	30	25	443
2	Amahra	62	77	70	448	37	37	37	401
3	Ormia	62	72	66	467	18	22	20	439
4	SNNPR	56	31	39	457	22	10	14	381
	Total	65	61	62	1823	24	24	24	1661

NA = Non-adopters of seed & fertilizer package; A = Adopters of same T = Total

6. Conclusions and Policy Implications

In both country studies, there is direct relationship between economic status and family size at all levels - socio-economic grouping, status of villages and regions. The analytical categories, in both the Ugandan and the Ethiopian studies, have very similar consumer labour ratio [CU/LU] suggesting an across the board balancing decision between the level of consumers and potential labour providers in the household economy.

When the indicators of differentiation inferred from the distribution of holdings are controlled for household size, it is significantly reduced implying a direct relationship between household and cultivated land size. Given that land is not the constraining factor in most of the studied villages in Uganda and differences in Ethiopia are accounted for by family size, it appears that household size is the independent variable explaining size of holding under cultivation and therefore of total output. Those with

¹ Since the questionnaire design in the forests study did not include awareness of family planning methods,

larger family size are not only economically better off, but also significantly more and better educated. Female headed households are slightly poorer, smaller in size and less educated.

Given the very limited rate of labour hired even by the better off households and the similarity of crops grown and farming technology employed, the level of differentiation based on holdings are minimal. Such differentiations appear to arise from the number and type of livestock units. Together with non-traditional crops, all types of livestock modernization offer opportunities to increase agricultural productivity.

In the case of Uganda, in the drive towards growing without poverty via, among other strategies, the modernization of agriculture, both the small proportion of the adult population and the high dependency ratio imply labour augmenting technologies adapted to small farms. The more so:

- i. The social division of labour where men labour supply in the production of food crops is very low.
- ii. Under UPE more and more of children's time is channelled towards a 9 a.m. – 5 p.m. educational set up.
- iii. The remainder of the potential source of labour especially in the production of food crops, women labour, is already overloaded without much respite from production and reproduction in the domestic economy.

A supposedly 'labour surplus' economy', it is faced with labour constraint.

With a widespread awareness of family planning methods and some level of adoption, the findings from the study suggest that already there is a significant change of attitude about family sizes. This is reinforced by high level of primary education including the girl child. In their quest to grow without poverty, both Ethiopia and Uganda appear to have a solid foundation to implement a population policy. Given the culturally sensitive nature of the actual family planning devices, the informal channels such as church/mosque groups, saving clubs, women groups etc are more likely to yield better results. This could be further reinforced through an integrated gender sensitive education aiming at a synchronization of the rate of population growth and the national economy.

this is derived from another study in rural Ethiopia [Tenkir Bongor *et al* 2004].

References

- Agricultural Policy secretariat [APSEC]. "Economics of Crop and Livestock Production" 1993a. "Study on the Provision of Agricultural Services in Uganda in the Light of Structural Adjustment". Working Paper.
- Barton & T Bagenda. 1993. Family and Household Spending Patterns for Health Care. **Child Development Centre, Makerere University.**
- Boserup, E. 1981. **Population and Technological Change: A study of Long Term Trends.** University of Chicago.
- _____. 1965. **The Conditions of Agricultural Growth:** The Economics of Agrarian Change under Population Pressure. New York.
- Dessalegn Rhamato. 1996. "Land, Population and Environment: What is at Issue?" Paper Prepared for the Panel Discussion on Population and Environment in Ethiopia, National Office of Population. Mimeographed. Government of Uganda, MoF.
- _____. 1997. "Financial Implications of UPE". Draft of Paper submitted to the Education Sector Adjustment Credit Working Group. Government of Uganda, 1994, 'Integrated **Household Survey**, MFED.
- Government of Uganda. 1991. "The 1991 Population and Housing Census Analytical Report". MoFED.
- .Lipton, M. and Ravallion, M., 1997, "Poverty and Policy", Paper Presented to African Economic Research Consortium, 6-7 August, Kampala.
- Muluneh Woldtsadik. 2003. "Population Growth and Environmental Recovery: More People More Trees, Lessons from West Gurageland". Paper presented at the Ethiopian Studies Conference, Hamburg.
- Murton. J.E 1997. Coping with More People: Population Growth, Non-farm Incomes, and Economic Differentiation in Machakos District, Kenya. Mimeographed, Dept of Geography, Cambridge University.
- Opio, Fred, 1997. "Structural Adjustment, Growth and Poverty in Uganda", **Economic Research Bulletin**, III (1) pp. 22.
- Ranis and Fei. 1964, **Development of the Labour Surplus Economy.**
- Richards and Lennox, (ed.). 1982, Target **Setting for Basic Needs**. ILO, Geneva.
- Sen, Amartya. 1984, **Poverty and Famines.** Oxford University Press.
- Shack, William A. 1966. **The Guraige: A People of the Ensete Culture.** Oxford University Press, New York.
- Tenkir Bongor, Gezahegn Ayele, and Tadesse Kuma. 2004. "Agricultural Extension, Adoption and Diffusion in Ethiopia". Research No 1, Ethiopian Development Research Institute, Addis Abeba, 75p.
- Tenkir Bongor. 2000. "Resources, Poverty and Human Development in Rural Uganda". **Africa Development**, XXV (3 & 4), pp 31-76.

- Tenkir Bongor. 1999b. "Structural Adjustment in Uganda and Implications for Rural Poverty". **Journal of Development Economics for Southern Africa, 1(6 & 7). pp 39-83.**
- Townsend, Peter. 1974. "Poverty as a Relationship to Deprivation: Resources and Styles of Living" in D. Wedderburn (ed). **Poverty, Inequality and Class Structure**, Oxford University Press.
- Uganda Vision 2025.1997, District Consultation Workshop Report. Mimeograph.
- UNDP. **Human Development Report**. Various years.
- _____.1997. **Uganda: Human Development Report**. Kampala,.
- World Bank. 1996. **Uganda: The Challenge of Growth and Poverty Reduction**. Washington D.C.
- _____. 1993a. **Uganda Agriculture, Washington** D.C.
- _____. 1993b, **Uganda: Growing Out of Poverty**. Washington D.C.
- _____. 1992. **Poverty Handbook**. Washington D.C.
- _____. 1991. **Assistance Strategies to Reduce Poverty**. Policy Paper, Washington.

