

THE EFFECTS OF SOCIALIST TRANSFORMATION ON THE FERTILITY OF THE RURAL POPULATION OF ETHIOPIA

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ABSTRACT. Drawing on the experience of pre-revolutionary Russia, Poland, India, the Philippines and Kenya, an attempt is made to assess the implications the 1975 Land Reform will have on fertility in rural Ethiopia. The experience of these countries strongly suggests that in the short run, the 1975 Land Reform will have a powerful positive effect on the fertility of the rural population. Change in favour of smaller families will set in once the peasant mode of production becomes progressively socialized.

Most discussions of future population growth, in Ethiopia or elsewhere, are based on projections of past and present trends. They assume that certain specified changes in certain variables will occur, but usually at a steady incremental rate. Because of this, they are unable to incorporate the possible effects on fertility, mortality and migration of sudden, structural changes in the society under discussion. Such a change has occurred in Ethiopia since 1974, and it seems unlikely that this will have no significant effects on some or all of these variables, and thus on the rate of population growth. This paper is concerned with the possible effect, on fertility only, of the original 1975 land reform and of the moves towards the creation of cooperatives announced in 1979. The nature of the land reform will certainly have an impact on migration; and other changes indirectly associated with the land reform and cooperative programme will affect fertility, mortality and migration — the money spent on a mass-based public health programme, for example, will reduce mortality faster than the same amount spent on the elitist, curative and urban health programmes of the old regime. Better nutrition amongst the peasantry, which is almost certainly a result of the land reform, will likewise help to reduce mortality, and is likely also to raise fertility sufficiently to counteract the extent that diseases associated with malnutrition contribute to infertility.

But our concern here is with the direct effect on fertility made by the structural changes brought about by the revolution, notably of the equality of incomes and landholding, of changes in the relations of production, and of changes in the position of women and of children.

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Most people seem to believe, along with the United Nations:

“That the poor have more children than the rich is a well-established fact” [13, p.85].

This is true up to a point, but it depends very much on how you categorise people as “rich” or “poor”. If you compare the family size of an urban professional (rich) with that of a farmer (poor), then you will certainly find that income and family size are inversely related. But the category “farmer” is not an adequate basis for making such judgements in a country such as Ethiopia, for the 90% of the population who are farmers are not an undifferentiated mass, or at least were not before the land reform. Farmers as a group may be significantly poorer than certain other groups in the population, but this does not mean that they are all equally poor. In all peasant societies,* there is considerable inequality within the peasantry itself; some have more land and have higher incomes than others, and these differences are often large. So if we confine our conclusions to “the peasantry”, does the inverse relation between income and family size still hold? It does not, and in the following Tables we show that, in societies as seemingly different as those of pre-revolutionary Russia, India in the 1930s and contemporary Kenya, there is, within the peasantry, a strong and consistent positive association between family size and income/landholding.

TABLE 1

Pre-Revolutionary Russia
Area under cultivation and size of household, Perm Gubernia, Russia, 1894
(Sample - 23,574 households)

Area cultivated (desyatinas)	% of households	Persons/household
None	10.2	3.51
Up to 5	30.3	4.49
5 - 10	27.0	5.44
10 - 20	22.4	6.67
20 - 50	9.4	7.86
Over 50 - 60	0.7	9.25

Mean 9.80, Standard deviation 3.20. Skewness 0.13

Note. One desyatina equals about 1.1 hectares.

Source: V.I. Lenin, *The development of capitalism in Russia*, (Progress, Moscow, 1974), pp. 108, 109.

* There is no agreed definition of “peasant society”, and considerable debate as to whether we can usefully speak of a “peasant mode of production”. On the first point, there is some agreement that peasants (a) have access to land, (b) rely on family labour, and (c) are never a “whole society”, but always subjected to surplus-extraction by a dominant mode of production, whether feudal, capitalist or socialist. As for the peasant mode of production, it is clear that the peasant family is the basic economic unit of the society, and that there are relations of exploitation within the family itself. For discussion of these problems, see [4,7,8,9].

Lenin concluded from his study of this and other samples:

“We see that everywhere the size of the families of the well-to-do peasantry is above the average and that of the poor below the average” [5, p. 135].

TABLE 2

Poland, 1890-1948
Number of children born by 1948 to mothers of different ages, by landholding
(Sample - 14,100 women)

Landholding (hectares)	Average number of children of mothers born in					
	1855-80	1891-94	1898-1900	1905-06	1911-12	1922-29
0 - 0.5	4.74	4.12	2.85	2.91	2.54	1.31
1 - 2	6.21	4.77	2.78	3.37	2.80	1.40
3 - 4	7.01	5.11	4.32	3.61	2.93	1.45
5 - 7	7.67	5.34	4.71	3.77	3.01	1.49
10 - 15	8.57	5.67	5.28	4.10	3.19	1.55
Mean	5.5	5.2	5.7	5.2	5.0	5.0
Standard deviation	4.5	4.4	4.5	4.4	4.4	4.4
Skewness	0.1	0.1	0.1	0.2	-0.2	0.2

Source: W. Stys, “The influence of economic conditions on the fertility of peasant women”, *Population Studies*, 11, 1957, p.141.

TABLE 3

Size of farms and number of living children, Poland 1948

Size of farm (hectares)	Average number of living children
Up to 0.5	3.62
0.5 - 1.0	4.07
1.0 - 2.0	4.42
2.0 - 3.0	4.72
3.0 - 4.0	4.90
4.0 - 5.0	5.25
5.0 - 7.0	5.44
7.0 - 10.0	5.91
10.0 - 15.0	6.16
15.0 - 20.0	6.83
20.0 - 30.0	7.25
30.0 - 50.0	7.67

Mean 12.5, Standard deviation 12.5, Skewness 0.06

Source: W. Stys, “The influence of economic conditions on the fertility of peasant women”, *Population studies*, 11, 1957, p. 136.

Stys wrote:

“The most important conclusion reached is that rich peasants have much larger families than those who are poorer” [10, p.137].

TABLE 4
India, 1930s
Differential fertility in the Punjab, 1934-35

Income in rupees/annum	Agriculturalists		Non-agriculturalists	
	No. of children born surviving		No. of children born surviving	
Below 200	4.87	3.24	4.82	3.08
201 - 400	5.04	3.48	5.12	3.39
401 and above	5.29	3.70	5.27	3.72

Source: Colin Clark, *Population growth and land use* (St. Martins, New York, 1967), p.190.

TABLE 5
Philippines, 1950s
Total fertility of wives ages 45 and over, by landholding

Size of holding (hectares)	Total fertility
Up to 1	5.1
1 - 2	6.8
2 - 3	7.6
3 - 4	9.3
Over 4	7.9

Mean 2.80, Standard deviation 1.50, Skewness 0.02

Source: Colin Clark, *Population growth and land use* (St. Martins, New York, 1967), p.192.

TABLE 6
Kenya, 1960s
Gross annual income (all sources), by household size, in Central Province, Kenya, 1963-64

Income (K. shs)	% of households	Average Household size
Under 1000	41.5	3.9
1001 - 1500	20.9	5.9
1501 - 2000	14.4	7.1
2001 - 2500	8.0	8.2
2501 - 3500	5.8	8.6
3501 - 5000	5.1	8.9
Over 5000	4.3	9.6

Mean 1493.75, Standard deviation 1207.49, Skewness -2.1696

Source: Government of Kenya, *Economic Survey of Central Kenya, 1963-64*, (Ministry of Economic Planning, Nairobi, 1968), pp. 39, 44.

TABLE 7
Ethiopia, 1970s
Gross annual cash income, by household size, Chilalo, 1972

Income, \$ Eth.	No. of households	Average household size
Up to 500	5	4.60
501 - 1000	32	5.67
1001 - 1500	31	6.35
1501 - 2000	10	5.11
2001 - 2500	11	8.69
2501 - 3000	3	8.67
3001 - 3500	2	7.40
3501 - 4000	4	11.53
Over 4000	5	9.62

Source: Johan Holmberg, *Survey of consumption patterns in Ettaya*, CADU Publication No. 90, 1973, p. 35.

Before we consider the implications of these Tables, some cautionary notes are in order. First, the data from Ethiopia is included simply to illustrate the general point — the sample is tiny, it refers to cash incomes only, and to an untypical area of Ethiopia. Secondly, the data from Ethiopia, Kenya and Russia refers to "household size", and not "family size" (even though Lenin incorrectly makes conclusions about "families"). In many peasant societies, it is common for richer families to have relatives living with them, and for poorer families to send members to richer relatives, so the difference in family size is probably less than the difference in household size. Thirdly, richer peasants have slightly lower infant and child mortality than poorer peasants, so their larger families are in part due to more survivors rather than to more babies. But none of these effects is sufficient to explain the consistent difference in family size or household size between richer and poorer peasants. And the data from Poland, which was collected by a professional demographer with an eye for such interfering factors, shows a clear and consistent positive association between landholding and fertility.

How to explain this association? And in the light of an explanation, what are the implications for the fertility of the rural population of Ethiopia, where the land reform has removed the inequality of landholding in each community, and where the peasants' associations are to be transformed into producers' cooperatives?

The basic social unit of the peasantry is not the individual, not the village, not the class, but the family. It is the family which has a right to the land, it is the family which provides the labour force to work that land, and it is to the family that income accrues. In a largely hostile environment,

where landlords, tax-collectors, the weather and "outsiders" in general dominate the precarious well-being of the peasantry, the peasant has secure control over only one factor of production, namely labour — family labour. This fundamental feature of the production process produce a general pressure for high fertility, and accounts for the fact that, as a group, the peasantry has a larger average family size than other groups in the population.

This pressure for high fertility is socially controlled within the peasant community. No human population reproduces to its biological maximum, and peasants are no exception. In a variety of ways, the poorer peasants of any given community have fewer children than the richer ones. The differences in the Polish data, for example, are wholly accounted for by the poorer women having their first child at a later age than do the richer women; and by the poorer ones having their last child at an earlier age. Poorer women may also resort to abortion more often, the intervals between each birth may be longer because they abstain from intercourse for longer after each birth, or because they breast-feed the baby themselves for longer than do the richer women. Poorer women are probably also more liable to "natural" factors, such as infertility due to disease or malnutrition, and they may die before reaching the end of their reproductive years more often than do richer peasant women.

We must seek for a material basis to such social forces which seem to exercise so strong and consistent an influence over so vital an area of human behaviour. The answer lies in the "family", which is not the cosy, conflict-free unity which often appears in the sociological literature — or at least, not the peasant family. There are clearly relations of domination and subordination within the peasant family, resting on relations of economic exploitation; exploitation of children by adults, and of females by males. Those who profit from the labour of others have economic power, and with that power comes the power to establish their own ideological interests as the prevailing ideology of the community of which they are the most powerful members. The family size of peasants is determined not by their absolute level of land-holding or income, but by its level relative to the other members of the community. While it is in the interest of all peasants to have relatively high fertility, it is the interests of the richer ones to make sure they have higher fertility than the poorer ones, for, as we have noted above, it is labour, family labour, which is the resource over which the peasants have most control.

Why it is men who normally dominate women, in peasant and non-peasant societies, is too complex a matter for this paper. But few would deny that within the typical Ethiopian, or Kenyan, or Indian family, men exploit women, in the sense that the flow of surplus value is from women to men. The surplus value of children's labour certainly accrues to the adults, and it is clear from many surveys of labour inputs on small farms that children contribute a significant proportion of total family labour [2, 11, 12].

To account for the decline in fertility which has occurred among the rural population of many parts of the world, we must look not to changes in quantitative indicators (such as increased incomes or increased literacy or reduced mortality), but to a qualitative change in the mode of production and hence in the relations of production. In a variety of ways, peasants cease to be peasants. In England they became an urban proletariat, in Taiwan they have become small capitalist farmers, in Russia they were first eroded by the changes of capitalism, and then collectivised, while in Puerto Rico and in parts of Kenya today, they have become a landless rural proletariat. Whatever the route, the relations of production characteristic of the peasant family farm have been changed, the biological unit we know as "the family" no longer coincides with the economic unit we know as "the farm". Fertility decline is by no means an automatic response to this change — as Marx observed of the 19th-century English urban poor, [6, p.372] and as many have observed of the urban poor in today's underdeveloped countries, [3] it is possible for the relations of intra-family exploitation to continue within another, dominant mode of production. But the general trend is away from this, just as the practice of Kenyan commercial farms "paying" their workers partly in the form of a small plot of land for family cultivation is now dying out [4].

To sum up, we suggest that the peasant "mode of production" produces a societal pressure for high fertility; that this fertility is effectively reduced for the poorer members of any peasant community; and that, when the peasant mode of production changes, average fertility falls.

The implications for Ethiopia are as follows. There are five ways in which the implementation of the 1975 land reform throughout the country, and the proposed transformation of peasants' associations into producers' cooperatives, will have a powerful effect on fertility. These are (1) through the present confirmation of the bulk of the rural population as peasants; (2) through the reduction in inequality of landholding; (3) through the socialisation of production via cooperatives; (4) through the changing position of women; and (5) through the changing economic role of children.

Firstly, this reform has ensured that, for the present time, the great majority of the rural population will be peasants. The two fundamentals of the peasant economy, access to land and reliance on family labour, have been strengthened by the reform. Hiring of labour is forbidden, except in restricted cases. Moreover, the two traditional routes out of the peasantry have been blocked. Formerly marginal peasants, liable to imminent dispossession and consequent proletarianisation, are now secure, and in many cases now have more land than before. The potential small capitalist farmers cannot hire labour or rent extra land. Thus the changes which might have reduced the proportion of the population who are peasants (and thus reduce the proportion who have the highest fertility) will not now occur, at least not in the way which seemed likely before 1974.

Secondly, inequality within the peasantry has been or will be drastically reduced. This removes the cause of different fertility between rich and poor peasants, and there is every reason to suppose that it will be the formerly poorer peasants who will now raise their fertility to the level of the formerly richer, rather than the other way around. With the ban on hiring of labour and the impossibility of acquiring extra income from either renting more land or from renting out one's own land, the primacy of family labour as the major resource for family production is further strengthened. Thus the equalisation of land-holding, which is the result of the 1975 land reform, will be a strong reason for fertility to raise.

Thirdly, the transformation of the peasants' associations into one form or another of producers' cooperatives will, in time, cause the Ethiopian peasantry to cease to be peasants. The mode of production, now based on family labour for a family income, will change to a form of socialised production, with income paid to individuals according to their work. The relations of production within the family will change, and the high fertility which is a product of the peasant mode of production will lose its rationale. Thus the socialisation of production will cause fertility to fall — indeed, such socialisation will signal the start of the long-term fertility decline in Ethiopia, which will only end when fertility has fallen to levels now found in developed countries.

Fourthly, there is the impact on fertility of the changing status of women. The end of the peasant family mode of production, in which relations of both production and reproduction in a sense coincide, will remove one major structural support of the exploitation of women by men. Whether new structures will emerge is difficult to say, for such exploitation is clearly not the sole preserve of the peasant mode of production. But we would expect the general trend in Ethiopia to be one of the emancipation of rural women, and it seems probable that such emancipation will include the freedom from perpetual child-bearing. One of the unknowns of fertility research is the answer to the question, "If women alone had the choice, would they have as many children as they now have?" Incidental data suggests that they would not, in that abortion (legal or illegal) is increasingly common throughout the world, and is a means of fertility control which is the choice of the woman alone, rather than the choice of man and woman together. Thus, in general, we would expect fertility to fall as a result of the changing structural position of women in the new mode of production, and as a result of their emancipation politically and ideologically, which is a general commitment of the Ethiopian revolution.

Lastly, there is the impact on fertility of the changing economic role of children. The share of total labour inputs on small farms which is provided by children is probably of the order of between 20% and 30%, if the Ethiopian peasantry is anything like that of Kenya, Tanzania or Indonesia

[2, 11, 12]. It should be remembered that children are particularly productive at peak times of agricultural labour, and in those laborious tasks which the statisticians tend to delegate to the category "domestic chores", such as baby-minding, fetching water or fuel, and so on. Now it is possible that the transformation of agriculture, through cooperatives but also through new technologies, might in fact raise the productive role of children; but the basic change away from the family-based mode of production will reduce the benefits to each set of parents of having many children; though, without such transformation, the demand for family labour by peasants in peasants' associations might be expected to increase. Thus we would expect the costs and benefits to peasant parents of having children would be in favour of a larger number so long as the basic 1975 land reform persists, but to change in favour of smaller families once production becomes socialised.

CONCLUSION

The immediate effect of the 1975 land reform, and of the structure of production which has arisen from it, will have a powerful positive effect on the fertility of the rural population. This is because the reform has turned the rural society into a society of relatively equal peasants, and peasants as a whole have high fertility, and their average fertility is only held back by inequality. The socialisation of agricultural production through the creation of cooperatives, or of state farms, etc., will however, remove the basic structural reason for high fertility; and changes in the position of women and of children in the structure of production will further encourage a reduction in fertility.

The effect of such changes in fertility on the rate of population growth, now and in the future, will depend greatly on how fast or slowly the transformation of the peasants' associations into cooperatives proceeds. A fairly short period of very high fertility, say 20 years, will continue to push up the rate of population growth for at least two generations, say for the following 50 years, even if, after this period of high fertility, fertility falls quite rapidly. This is because changes in fertility take a long time to work themselves out in their effects on population growth. The rate of population growth will also, of course, be influenced by other factors, notably the speed with which mortality falls, but also by political agitation of women causing changes in fertility, the spread of access to education causing changes in the economic costs and benefits of children, and so on. But we believe that the fundamental impact on fertility will come from changes in the relations of production in the agricultural sector.

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