

# CAUSES AND EFFECTS OF DISEQUILIBRIA IN FOOD PRODUCTION

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The growing demand for food of an increasing population can be met either by larger net imports of food from another region or by intensification of land use. Land use is intensified in many ways, depending on the existing population density and climate : clearing of forested land and natural pastures to expand the area of cultivated land, shortening or eliminating fallow periods, irrigation, fertilization, leveling and terrassing and planting labour intensive, high yielding crops (2, 20). Therefore, unless net imports of food are increasing, part of the rural labour force must be employed in capital investment in land clearing and other improvement, be it labour investment by the producer and his dependents or monetized investment. (2)

But, population increase does not only impose an increased burden of investment. Sustained population growth has the advantage of gradually reducing the *per capita* cost of investment in transport and other economic and social infrastructure, thus facilitating productivity increase by improved transport, communication and technology transfer (4, 5). Because of this double effect of population growth, the attitude of central and local governments is crucial : by providing or encouraging agricultural and rural investment, the rural population growth can be turned into an advantage and diminishing returns in agriculture can be avoided.

If the population in a region is small and scattered, as is the case in most of Africa, the high per unit cost of infrastructure is a serious handicap to agricultural intensification and rural development. The scarcity or inexistence of transport facilities and other rural infrastructure is the main — although not the only — cause of the disequilibrium between the growth rates of population and food production in Africa. Even more important : the scattered population, high transport costs and widespread subsistence production limit the markets for non-agricultu-

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ral products and services, thus making industrialization uneconomic. So, the African economies continue to be heavily dependent upon non-agricultural imports. Many are highly indebted and nearly all must finance their non-agricultural imports by means of the fluctuating incomes from primary exports. (6)

To make things worse, many African countries have become dependent upon large food imports. Because of the poor rural infrastructure, imported food in the coastal towns sometimes costs less than the price of transport from rural areas to the towns, leaving nothing to pay the costs of producing the food. (13) So, many African governments were tempted by the offers of cheap subsidized food surpluses from industrialized countries, which they bought or received as gifts. The large imports of cheap food — often made even cheaper by government subsidies — reduce the demand for African-produced food. So, in spite of the rapid increase of population, commercial production of food increased slowly and sometimes declined, not for lack of land resources, but for lack of demand for African produced food.

The farm support and export subsidies for crops and animal products produced in the industrialized countries do not only reduce the internal demand for African-produced food, it also prevents African exports of the subsidized items. Commercial food production for exports is prevented because farm support and export subsidies in the industrialized countries distort world market prices, thus depriving Third World countries of their comparative advantage in food production. This deprivation of export outlets for food items causes a shift in commercial production to tropical crops. This contributes to oversupply of the markets for tropical products and to the instability of their prices, leading to increased indebtedness.

## *Effects of austerity policies in Africa*

In recent years the debt problem forced many African governments to change their food policies. Deterioration in their balances of payments and inability to serve the old debts without access to new credits obliged them to accept the austerity policies, on which their creditors insisted as a condition for new loans. As a result, public investment programs and current government expenditure were cut back, food subsidies were reduced or eliminated, national currencies were devaluated, and food prices increased sharply. In some cases this increase of food prices induced male farmers to engage in commercial food production, or expand the one already existing ; but in many cases domestic production failed to respond to the increase in prices for imported food, because of the poor levels of rural infrastructure in Africa, and because the most enterprising youth had left the villages. Under these conditions

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the increase of food prices, although a necessary condition for higher production, was not a sufficient one.

The urban population was hit, both by the increase in prices of food and other imported goods, and from the reduction in employment resulting from the reduction of government expenditure. They reacted to this situation by three different strategies : They devoted a larger share of their previous purchases of industrial manufactures and modern services to self-supply and purchase of cheaper products and services of poorer quality from the informal sector. Secondly, many urban families reduced their food purchases and started or increased self-production of food within or in the neighbourhood of the towns. Thirdly, a part of the urban population left the towns, and some family members, or the whole family, returned to their home villages, where they could produce their own food and supply family members, who had remained in the towns, with food.

In other words, the need for reduction of the quantities consumed was diminished because the quality declined. Productivity declined, because self-supply and employment in the informal sector replaced modern sector employment, but in many cases the government sector had been overfilled with labour, so the loss of productivity would be lower than the reduction in employment. The employment in the informal sector declined, because the purchasing power of its usual customers declined, but it regained some of the decline because it took over some of the customers from the modern sector and the import sector.

Imports and production of goods and services in the modern sector are fully recorded in national income statistics, but subsistence production and production in the informal sector are only partly recorded, and many items are simply left out. (3) Therefore, national income figures, although correctly recording the direction of change when the economy expands, or recession sets in, exaggerate the rates of progress as well as the rates of decline in Third World countries with large informal and subsistence sectors. Because of the return to subsistence activities and use of inferior products, welfare has declined less than the decline of *per capita* incomes, as reported in African statistics. But the increase of food prices has been a hard blow to many urban groups.

### *The problem of food security*

Due to the intensification of land use in Third World countries and the farm support in industrialized countries, world supply of agricultural products has increased even more rapidly than the world population, contrary to the expectations of emergence of large global deficits, which predominated in the first decades of accelerating population growth in

the Third World. Because world supply has been growing rapidly, large surplus stocks have accumulated with the exporters, and the discussion of food security for Third World countries has changed. The focus is no more on the world food balance, but on the inability of poor families to cover their food requirements, because of lack of purchasing power (24, 25). It seems to be taken for granted that also in the coming decades, the world food situation will be one of global surplus. This may be so, but it is by no means self-evident.

The costly farm support policy in the industrialized countries, which has produced the surpluses, was introduced and widely accepted as a means to preserve the existing farm structure and prevent depopulation of rural areas, but from this point of view it has been a complete failure. Because there are economies of scale in modern agriculture and the government support is proportionate to output, the main benefits go to large individually owned farms or to company farming, while the small and middle sized farmers leave agriculture or fail to find a successor at retirement. The high profits of the large enterprises have promoted land concentration by pushing up land prices, thereby enhancing the mortality of the small units, which the support policy was meant to protect. Increasing political resistance to the present agricultural policy in the industrialized countries may — or may not — result in policy changes which reduce the rate of growth of production.

Moreover, the development of the demand for food imports into the « socialist » countries in the near future is highly uncertain. Fundamental changes in their agricultural policies may for a time make them more dependent upon food imports than hitherto, and failure to carry out reforms in the Soviet Union or steps backward, as in China, may have the same effect. It cannot be excluded either that some of the densely populated Third World countries, which have become self-sufficient or nearly so, again for a time can become more dependant upon food imports. Because of the favourable food security situation and low grain prices in Asian countries, investment in irrigation has declined sharply from a peak reached in the end of the seventies (14). Since there is a long time lag in large irrigation projects between the start of the investment and the increase of output resulting from it, food imports may once more be needed to bridge over a period of insufficient supply.

In a period of global shortage and mounting prices, countries with large food exports can preserve sufficient food for their own population and animals by reducing exports. This implies of course that the risk of hunger is enhanced for the population in food importing countries. If the present period of surplus production is followed by a short or longer period of shortage, with depletion of stocks and soaring prices, the countries with least purchasing power, and the poorest families in these countries will bear the brunt of the shortages. Therefore it should not be

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taken for granted that the risk of hunger can be eliminated by means of trade and food aid.

The risk of hunger is so difficult to eliminate because the persons who are personally at risk have no say in either national or international food policies : and the decisionmakers, who are not themselves threatened by hunger are much more willing than the people at risk would be to be deterred by the high costs of preventing hunger. Peasants in Third World countries willingly accept lower incomes to reduce the risk of being short of food. It is well known that in many countries farmers with small plots of land use these for subsistence production, even when they could earn substantially more by growing commercial crops.

The risk of hunger in poor countries as a result of future food shortages in the world market can be reduced, partly by deliberate attempts to increase the rate of self-sufficiency in basic food and partly by keeping large national stocks of either imported or home produced food, policies which are followed by some developing countries.<sup>17</sup> However, in recent publications the World Bank warns against both self-sufficiency policies and accumulation of large national stocks, because reliance on food aid and large commercial imports may be more « cost efficient » (27, 25). This is an example of the different valuation of the risk of hunger by those who have it on their doorstep and those that are far away.

### *Effects of the African crisis on fertility*

In most of the Third World the first stage of the demographic transition with accelerating population growth decelerates because fertility declines more rapidly than mortality. The major exception to this pattern is Africa, which has had little decline of fertility rates, and often increase due to decline of disease-related infertility.

The difference between fertility trends in Africa and in other parts of the world is related to differences in economic structure, in both urban and rural areas. (7) It was mentioned above that the low population densities and scattered population in most of Africa is a handicap to industrialization, which in other parts of the world has promoted urban fertility decline. The new industries have recruited young, unmarried girls from both urban and rural areas, who usually are fired or voluntarily give up employment, when they marry. But they use the time before marriage to support the parental economy and help finance their own marriage payments. This provides incentive to late marriage, so age of marriage has increased substantially and this has reduced fertility. (7)

Contrary to other parts of the world where large scale use of young female labour in production of manufactures is an important feature in the labour market, employment in production of manufactures in Africa

is relatively small. In spite of this, urban areas in Africa have grown at a very rapid rate, often more rapid than elsewhere. But the employment is mainly in services and construction : administration and residential construction in the new capital cities, trade and finance, transport and communication, tourism and entertainment, health services and education. (6) Therefore female employment opportunities are very different from those of for instance Asian countries. Most female employment is *self-employment in small scale trade, catering and other personal services* together with small scale production of consumer goods. Because of the low level of industrial production of consumer goods, the informal sector provides a larger share of the market than it does in other parts of the world. (3)

All this female self-employment is performed by married women, who use their own children and other female youth to help them. By contrast to industrial employment these activities allow flexible work hours and provide no incentive to late marriage or fertility restriction, but they help to support a large family. (7)

Moreover, in many parts of the Third World land shortage and the need to subdivide land, if there were many heirs, did already in the past provide motivation for family restriction with traditional means, and now it contributes to the widespread use of modern contraception in many densely populated rural areas (5, 10). But in Africa, the much more easy access to cultivable land together with widespread use of female and child labour in food production makes a large family an advantage for the husband. So, fertility remains high and polygamy continues to be widespread. (8)

With the high share of farm work performed by women and the polygyny, old and young men compete about the marriable women, and the need to finance bride prices promotes a large outflow of young unmarried men to urban areas, to areas where cash crops are produced with wage labour, or to foreign countries. While the dowry system, which predominates in Asia, provides motivation for late female marriage and decline of fertility, when there is access to wage employment for young women, the African system of bride prices paid by the man or his family, has no such effect. Because of the widespread polygamy, bride prices are high, and the need to provide money for the bride price contributes both to a high male marriage age, even in first marriages, and to the large migration of young men from their home villages. But if they return to marry, they marry much younger girls, and the local girls also become additional wives for elderly villagers at a very young age. The typical age difference between husband and wife in Africa is ten years in first marriages, and much more in polygamous marriages of elderly men to young girls (6, 8).

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Both temporary and permanent young migrants usually send remittances to the family members left behind, whether these are parents or wives, and the hope of receiving remittances from emigrated offspring acts as a disincentive to fertility restriction. Moreover, it acts as an incentive to education of children in order to enhance their earning power. So parents may be more inclined to invest in education of their children than investing in agriculture. Owing to the large migration of youth, who never returns, the village population consists to a large extent of women and elderly men, and in many areas there is little confidence in good returns to agricultural investment.

The net effect of the crisis on population trends in Africa is difficult to foresee. Mortality of children and old people in the poorest urban groups is likely to increase, because reduced calorie supply will increase morbidity, but the risk of increase of mortality both in rural and urban areas due to reduction of government health expenditure and investment in sanitation is probably more serious (1, 12, 16, 19, 23). If the very high child mortality fails to decline, or even increases, the effect may be to retard fertility decline, but it seems more likely that the effect of the crisis will be to reduce fertility. Before the crisis, parents optimistic expectations concerning their childrens future contributed to keep fertility high, but when reduced income and employment opportunities for urban parents go together with less confidence in their children's future, many more urban parents of both sexes may become more inclined to fertility restriction. Moreover, the poor conditions in the urban labour market for young rural-urban migrants may have similar effects on some rural parents. (7)

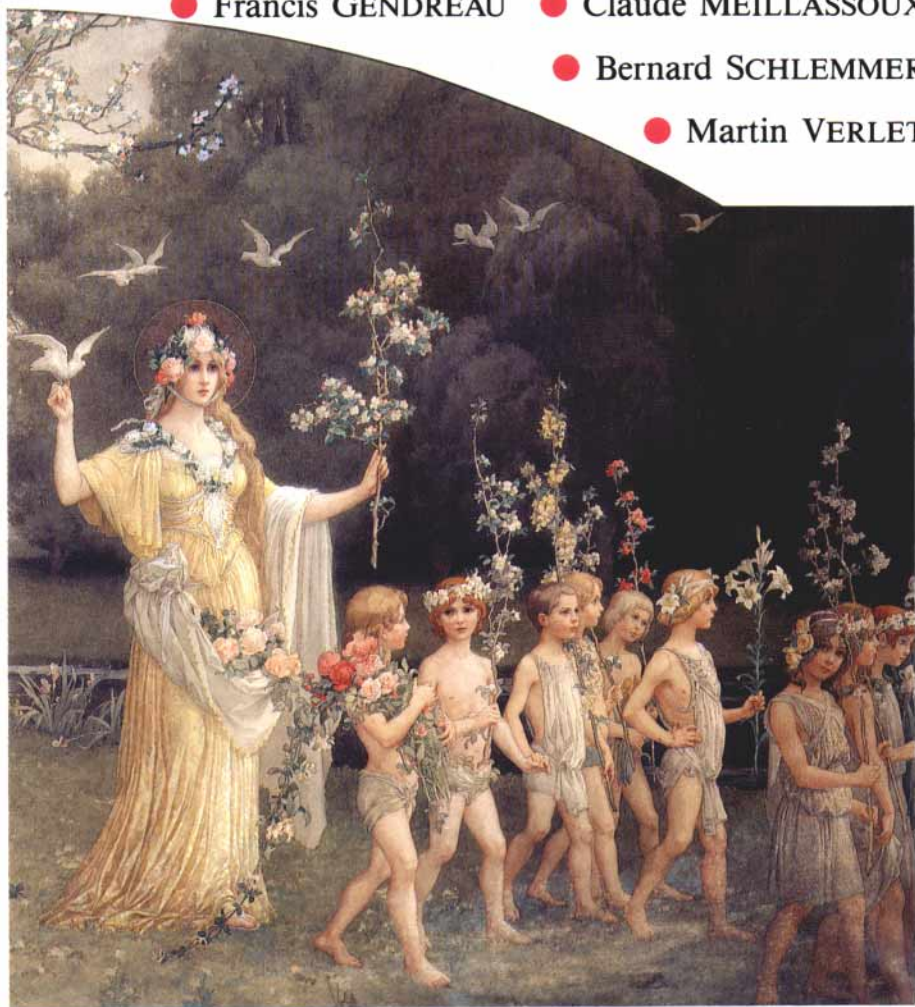
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