

Effect of world trade trends on the development of traditional food systems

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This paper discusses the significance of traditional food systems (TFSs) and the impact of past and (anticipated) future trends in international trade in agricultural commodities on their development and livelihoods, chiefly in sub-Saharan Africa and South Asia.

Conclusions and research needs

- TFSs in remote areas are largely insulated from the impacts of trends in world trade. In these areas, traditional food crops are likely to remain important.
- In accessible areas, international trade may hasten the move away from TFSs, through discouraging food production and providing opportunities for production of other crops.
- Tariffs may be used to protect TFSs against competition from imported products, however they also raise domestic prices.
- Whilst trade trends in the recent past have exerted considerable competitive pressure on traditional food systems, developments in international food markets in the next decade are likely to provide more support to their development. However, the impacts of this on the welfare of the poorest citizens in the countries concerned are ambiguous.
- There is a strong case for expanded public research investment in traditional crops, such as sorghum and millet, which play an important part in the livelihoods of households in remote areas

Traditional food systems

The term “traditional food system” (TFS) is here defined as “a complex of production, distribution and processing activities, which have in the past provided the typical way of feeding populations and which continue, to a varying extent, to contribute to this process”. TFSs have connotations of: small scale modes of production; fairly simple storage and processing technologies; high labour intensity and often substantial participation by low income groups, particularly women. They are often also associated with subsistence production and/or largely local trade. However, our definition of TFSs also includes the “traditional” small-scale traders with few fixed assets and limited access to formal financial institutions, who dominate many national, and sometimes cross-border, food markets. The distinction between traditional and modern trading enterprises is described in Box 1

The definition of TFSs adopted here focuses on the socio-economic characteristics of the systems concerned. The crops involved vary from place to place. In much of sub-Saharan Africa, coarse grains (maize, millet or sorghum) would be widely accepted as “traditional” food crops, but not wheat and rice. In South Asia, meanwhile, rice is a

Box 1: Maize Trading in Ghana

Best available estimates suggest that around one million tons of maize are produced annually in Ghana, almost exclusively by smallholder producers. Of this, 50% or more is marketed outside the producing region, with 90% of this trade controlled by networks of small, informal traders. These traders, predominantly women, link farms, assembly markets, wholesale and retail markets (particularly in the south of the country). They generally rely on hired transport and have limited working capital, which has to be turned over quickly, so few engage in anything but the most temporary storage activity.

During the 1990s a small number of larger “modern” traders have appeared, initially servicing feed millers, commercial poultry farmers, larger food processors and aid donors, but now also selling to the public in general. Whilst a turnover of 5-10,000 tons per year is small compared to the volumes handled by the larger traders in countries such as Zambia, it is large compared to the 15 tons or so a week handled by the largest traditional traders. Some of the “modern” traders own warehousing space and one has installed a grain drying facility. Through an inventory credit facility provided by the Agricultural Development Bank, they engage in intra-seasonal (and sometimes inter-seasonal) storage. Some also import maize into Ghana and, when opportunities have arisen, they have engaged in formal grain exports within the West African region.

The traditional and modern trading segments thus both compete with and service each other. The “modern” traders obtain supplies from small-scale traders for their storage and drying operations, and may sell imported maize to traditional distribution channels.

Source: Coulter, 1997

central feature of most TFSs. However, modern high yielding varieties, which accounted for three quarters of the area planted to rice in Asia in 1990, might not be considered traditional. In some parts of both sub-continent, various roots and tubers, pulses, bananas and vegetables (especially leafy vegetables) might all be considered traditional food crops. They are grown for home consumption, sold in local markets and, with growing urbanisation, increasingly also sold to urban markets.

It is important to note that the crops associated with particular TFSs may also vary over time. For example, the widespread adoption of maize in Tanzania (as in many other parts of eastern and southern Africa) actually only occurred part-way through this century. Recent CPHP-funded fieldwork showed that producers in Sumbawanga Region of the country were reverting to production of millet, their "traditional" grain crop, following the removal of the final price supports for maize in the 1990s.

TFSs in accessible and remote areas

Throughout the developing world, production of traditional food crops is a key component of the strategies by which poor households satisfy their food requirements. They are generally adopted in a given area because of their particular suitability to local environmental conditions (Box 2).

Box 2: The distinction between remote and accessible areas

Accessible areas

Those with reasonable agro-climatic potential and with reliable contact with a significant market centre

Remote areas

Those with marginal environments from the point of view of agricultural production and/or where contact with major markets is extremely difficult

Obviously, these categories are not rigidly defined.¹ Moreover, the classification of some areas will change over time - most notably as higher populations make provision of improved infrastructure to previously remote areas economically viable. However, we observe that:

- the majority of the rural population in most developing countries lives in the first type of area. However, an increasing proportion of the poorest households are found in remote areas;
- over time, the significance of TFSs will decline in accessible areas, but remain strong in remote areas;
- TFSs in remote areas are largely insulated from the impacts of trends in world trade.

¹ From the point of view of an area's ability to participate in national markets, relative measures of agro-climatic potential and accessibility are possibly more important than absolutes.

However, as technology and/or market conditions (particularly the extent to which regional, national and international markets are integrated) change over time, other crops - or strategies for satisfying food requirements - may become more appropriate.

Agricultural commercialisation

Millions of households are currently engaged in the production of traditional food crops for their own consumption. Such subsistence production is now well understood as a response either to the high cost or the unreliability of marketed food supplies. Where food markets are poorly developed, households prioritise their own food crop production, even where attractive cash cropping opportunities are available. However, subsistence production rarely reflects the producers' comparative advantage in production. According to von Braun and Kennedy (1994), "in a global sense, it is one of the largest enduring misallocations of human and natural resources, and, due to population pressure and natural resource constraints, it is becoming less and less viable". Therefore, as the efficiency of food markets is improved in the first type of area above, subsistence production will decline. The transition to more commercialised agricultural systems - with greater use of purchased inputs, increasing specialisation in production for market and greater dependence on purchased food supplies - is already well advanced in East Asia (Box 3).

Box 3: Transition to commercialised agricultural systems in Asia

Food consumption studies across Asia have shown the increased reliance of farm households on purchased food, and this trend will become stronger as incomes grow.

Improved transport and market infrastructure makes subsistence food production non-viable in all but the remotest locations.

Source: Pingali, 1997

Where certain crops have a sufficiently strong cultural significance to inhabitants of a particular area, mechanisms are likely to be found to preserve them, even in the face of competition from commercially produced (including imported) substitutes. In parts of Asia, particularly in rainfed systems, some market-oriented farmers are now reverting to production of "traditional" rice varieties that command a market price premium due to their preferred taste characteristics. Although such market responses do raise equity issues, poorer households may also devise ways of maintaining access to preferred traditional varieties.

In remote areas, by contrast, isolation from wider agricultural markets will impede the commercialisation process. Here, traditional food crops are likely to remain important, valued for their yield stability in marginal agro-climatic conditions and often also for their good storage characteristics. Local markets will also continue to dominate in crop sales.

Arguments for the Preservation of TFSs

The foregoing discussion suggests that preservation of TFSs is largely a pragmatic choice, given technological and infrastructural constraints on wider food market development. However, there are other ways in which TFSs also contribute to the livelihoods of poor households:

- beyond the farm-gate, TFSs may generate significant local employment in processing and petty trading activities. These post-harvest employment opportunities can greatly exceed those available during the main production season(s), although this depends on the particular crop and the nature of processing requirements. The volume of such employment is likely to increase during the early stages of commercialisation, although it may decline later. On the other hand, crops that are processed for sale in local markets, using traditional processing technologies, will generate more local employment than imported substitutes;
- there is also an important gender dimension to these employment and income-generating functions of TFSs. Much local processing and petty trading activity is performed by women. Where processing is done unpaid on farm, it may merely add to an already considerable burden of women's work. When it is paid work, it will tend to enhance the livelihoods of those so employed. Thus some degree of commercialisation may also be good from this perspective;
- on the other hand, the returns from occasional sales of produce are often also controlled by women, who have a high propensity to purchase basic items for themselves and their dependants. Where there is a switch to more commercialised production, control may be assumed by men;
- landraces of traditional varieties embody higher genetic diversity than competing modern varieties and are often better able to withstand pest and disease attack. The threat to this in-field diversity is more likely to come from the adoption of modern varieties than

from changes in the international trade environment;

- In some cases a switch to consumption of purchased commodities from locally produced, traditional food crops may have adverse nutritional consequences. However, there will also be cases where the reverse is true.

In considering these, it is worth distinguishing between reliance on local production as opposed to imports (the first two points above) and reliance on traditional crops/varieties, as opposed to commercial crops (the last three points).

The links between TFS and international trade

In accessible areas, international trade may hasten the move away from TFSs, both by discouraging food production and by providing enhanced opportunities for production of other crops. TFSs tend to produce and distribute either importables (i.e. commodities actually or potentially competing with similar commodities imported from world markets) or non-tradables (i.e. commodities that are neither imported nor exported). A ceiling is set on the local price of importables by the price prevailing on the world market (with an additional margin for distribution costs). Whilst prices of non-tradables are determined by the interaction of local supply and demand, these may be influenced by changes in world market prices for tradable substitutes.

Box 4: Factors affecting trade in international and traditional goods

The major factors affecting international trade include:

- movements in the international price of these goods;
- the exchange rate;
- the extent of tariff or other protection enjoyed by local products and
- the costs of in-country distribution of imported goods.

By depressing prices and margins within TFSs, low prices of imported goods discourage investment in local production and marketing capacity. Cheap imports of maize and wheat are accused of undermining TFSs in much of Central and South America in the 1980s and early 1990s. Exceptions to this occurred where high transport costs prevented the integration of local and international markets.

Such developments are particularly undesirable if:

- temporarily or artificially low international prices have long-term impacts on the livelihoods or asset holdings of the poor (e.g. through forced land sales);
- barriers to entry prevent poor producers from taking advantage of more remunerative opportunities created by liberalisation processes.

The chief impact of international trade on TFSs is thus exerted through the price and availability of imported goods that compete with traditional local products. Box 4 highlights the major factors

Trade issues affecting the development of TFSs in sub-Saharan Africa and South Asia

Structural adjustment programmes adopted in sub-Saharan Africa since the 1980s have encouraged the liberalisation of food imports and domestic marketing arrangements. State monopolies have been dismantled in many countries and non-tariff barriers to importation reduced, although in many countries administrative controls remain. These reforms have tended to lower the cost of imported products, as well as to make domestic prices of traditional importables more sensitive to prevailing world market prices. Similarly, in Bangladesh, state control over the importation of staple foods has been reduced, particularly since 1992, and private sector import activity has expanded rapidly, albeit still subject to licensing controls. By contrast, in India, such reforms have not been contemplated until recently.

At the same time, many countries in sub-Saharan Africa have experienced real exchange rate devaluation. This tends to raise the local price of tradable commodities vis-a-vis non-tradables, with varying impacts on TFSs. The 1994 devaluation of the CFA franc both raised prices of, and stimulated regional trade in, commodities such as rice, maize and millet.

Recent studies of liberalised grain markets in sub-Saharan Africa show that real food prices have declined in recent years. This is partly because competition has reduced margins in distribution and processing and partly because of the greater competition from imported products. Competition has also reduced transport costs (countering the impacts of devaluation) in some countries, although much yet remains to be done. Where pan-territorial producer prices for grains have been scrapped, the locus of production has shifted to lower cost areas - a national efficiency gain. However, per capita increases in production have only been seen in a few countries, raising doubts about the international competitiveness of many TFSs in their current state.

Studies also show that the majority of rural households in sub-Saharan Africa are now net buyers of grain. The reasons for this are only imperfectly understood. Declining land holdings and associated difficulties in maintaining soil fertility are thought to be a contributory factor. However, in some places, improved performance of

food marketing systems after liberalisation may also have encouraged greater reliance on the market. A critical aspect of the performance of a TFS for the poorest households is thus the efficiency with which it supplies grains and other staples for purchase. For these households, it matters little whether the origin of the grain is a surplus producer within the district/country or a consignment of imported grain.

Whilst much attention is paid to international trade in basic foods, less is paid to the equally important issue of cross-border trade. In Southern and Eastern Africa, although the correlation between annual production in neighbouring countries is sometimes weak, policy tends to discourage cross-border trade. This is particularly disadvantageous for producers in border areas, who are often remote from their own national market centres. In a small, landlocked country such as Malawi, restrictions on trade with its neighbours discourage investment by international grain trading firms. This protects local traders, but unfortunately there are severe doubts about the capacity of Malawi's TFSs to continue to feed its expanding population.

International market trends and the impact of multilateral trade negotiations

Since the 1960s the real price of basic food commodities on international markets has been declining. In the past couple of decades these falls have been driven by subsidised exports, particularly from the EU, as rich countries try to dispose of surpluses generated by protected domestic producers. Under the Uruguay Round Agreement of the GATT, eventually concluded in 1994, plans were made to diminish the use of such subsidies, creating an expectation that the rate of real price decline would be slowed or the trend even reversed. This was thought to be good for food exporting developing nations, but (in welfare terms) bad for net food importers, e.g. much of sub-Saharan Africa (Box 5).

Box 5: Impact of the Uruguay Round Agreement on tariff levels in developing countries.

The Uruguay Round Agreement had little impact on actual tariff levels in most developing countries, as (thanks to domestic economic reform programmes) actual tariffs were often considerably lower than bound tariffs. Where developing countries were obliged, as a result of the 1994 Agreement on Agriculture, to replace non-tariff barriers by tariffs, these were often bound at very high levels. Moreover, in the agricultural sector, across the board average tariffs were negotiated, allowing countries to maintain high "peaks" in sensitive areas, compensated for by low or zero levels elsewhere. Whilst the removal of these "peaks" is likely to be a major issue in the forthcoming WTO Millennium Round of trade negotiations,

it is still unlikely that actual tariff levels in the poorest developing countries will be much affected.

In practice, the impact on prices has been relatively small so far (Tangermann *et al.*, 1997). Global shortages in the first couple of years of implementation reduced the level of subsidies that the EU needed to apply and, under the terms of the agreement, they were then allowed to carry over this incremental subsidy into subsequent years, thus keeping world prices low. There are some indications that price volatility has increased, but, if so, this is due to reduced storage activities, as governments increasingly leave this function to private traders, rather than to trade liberalisation *per se* (Greenfield *et al.*, 1996).

In the new round of negotiations, the EU will come under considerable pressure, particularly from the US and the Cairns Group of agricultural exporting countries, to phase out export subsidies altogether. However, it is unlikely to agree to this. The US may also be pressured to reduce its protection of domestic sugar, peanut and dairy producers.

Whilst the eventual impact on world prices is again likely to be low, there are other factors that could, in the next few years, also put upward pressure on world prices of key staple food commodities:

- rapidly growing consumption of livestock products in many developing countries is increasing demand for coarse grains as animal feed;
- it is argued that growth in rice production in much of Asia will fail to keep pace with population growth in coming years, as a result of a reduced flow of new technologies, environmental problems and increased competition in production from higher value crops;
- against this, there is the possibility that biotechnology will increase the production particularly of grains in temperate countries, thus putting further pressure on world prices.

The latest projections from FAO (1999) predict a rise in the real price of maize (and wheat) by 2005. A somewhat lower real increase is forecast for rice.

Policy mechanisms to facilitate successful adaptation of TFSs to the emerging international trade environment

Measures to assist TFSs to compete with imported products include investment in transportation and communications infrastructure, to reduce the transaction costs of trade within TFSs, and creative responses to the problems of credit supply for both

traders and producers. Note that to some extent these measures will also lower the local price of imported products. However, these will also hasten the commercialisation of the agricultural systems in question. This is generally to be welcomed, but may have negative consequences for some poor groups, as outlined above.

Tariffs may be used to protect TFSs against competition from imported products. However, they also raise domestic food prices. When the majority of poor households are net food consumers, the welfare impact of higher food prices is negative. However, if higher prices were to encourage greater investment in productive capacity, the ability of TFSs to compete with imported products could be enhanced and the long-term import requirements could fall.

Projected higher world prices for basic foodstuffs over the next decade pose a similar dilemma. Where a country is a net importer of basic foods, adverse balance of payments effects will reinforce the immediate, negative welfare impact of higher food prices. Against this, higher prices might encourage both private and public investment in TFSs, although this cannot be guaranteed. Meanwhile, there is a strong case for expanded public research investment in traditional crops, such as sorghum and millet, which play an important part in the livelihoods of households in remote areas. Such crops have received relatively little attention up to now and have seen few productivity (yield) increases in recent decades. However, as population pressure grows, they will have a vital “defensive” role to play in sustaining the livelihoods of poor people - particularly since the alternative development options for remote areas remain far from clear. This, however, is unrelated to the debate on international trade, as these areas are basically insulated by competition from imports.

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