

THE TRAGEDY OF AFRICAN AGRICULTURE: TRADE LIBERALIZATION AND AGRICULTURAL EXPORT PERFORMANCE

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Abstract

The paper analyses the evolution of Africa's international trade in agriculture following the implementation of trade liberalization policies, and attempts to explain Africa's performance in agricultural exports. Much of Africa has emerged from these reforms with much smaller shares in world agricultural trade with only a modest increase in the value of its agricultural exports. This is, in part, because trade liberalization lacked complementary policies to address the structural and institutional constraints on enhancing agricultural productivity, output and exports. The paper concludes that the objective of policy interventions to improve the export performance of Africa's agriculture should be to improve productivity, and efficiency of agricultural trade, through the provision of "public goods".

1. Introduction

One of the main objectives structural adjustment programmes (SAPs), including trade liberalization policies, implemented over the past 25 years all over Africa was to shift relative prices and resources in favour of the tradable sector. That is, to increase production for exports. It is therefore important to investigate the performance of African agriculture, in particular agricultural exports, over this period.

Two main strands of trade liberalization policies were expected to have a direct positive impact on the agricultural sector and exports. The first is reducing the high taxation of the sector by aligning producer prices with world prices. The second one is promoting the development of private input and output markets ("getting prices right"), an integral part of which was the dismantling of agricultural marketing boards and cutting off subsidies on a range of inputs, such as fertilizers and insecticides. Macroeconomic policies such as reducing over-valuation of the exchange rate and others that engender a more stable macroeconomic environment were also expected to encourage agricultural production for exports. The expectation was that by enabling agricultural exporters to capture a higher proportion of the world market price for their products,

these policies would give them higher incentives to produce and export more. Macroeconomic stability and realistic exchange rates were also expected to encourage production for exports and the diversification of such exports.

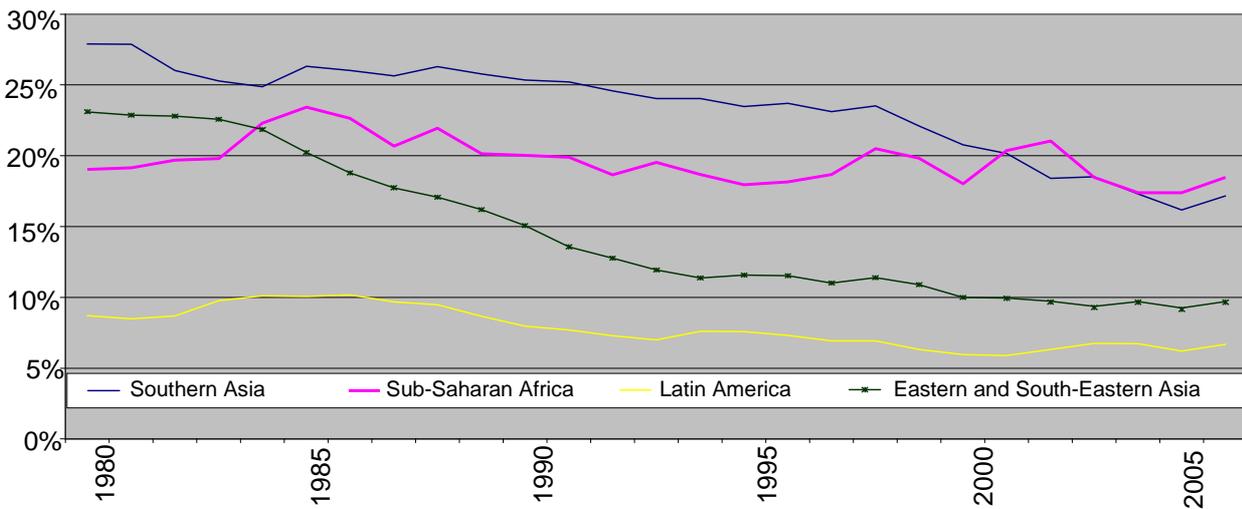
Despite the implementation of these policy reforms, the majority of African countries, especially in Sub-Saharan Africa (SSA), has paradoxically even ended up with reduced shares in world agricultural trade. As a result, African countries continue to participate principally in the low-growth sector of global trade, a fact which has important ramifications for their trade performance, and development generally. This is because world trade in primary commodities has been growing roughly at about half the annual rate of the growth of trade in manufactures since the 1950s. Global trade in agriculture has grown at 3.5 per cent per annum since 1950; fuels and mining at 4.0 per cent, while trade in manufactures registered an annual growth rate of 7.5 per cent (WTO, 2007).

This paper analyses the evolution of Africa's international trade in agriculture following the implementation of trade liberalization policies and attempts to explain Africa's agricultural exports' performance. It does not venture into a cause and effect analysis. The paper is structured as follows. Section one examines the evolution of African agricultural production and exports in the post liberalization period. Section two attempts to explain the export performance of Africa's agriculture, while section three touches on some possible broad policy responses to the poor performance of the sector. Section four offers some concluding remarks.

2. Evolution of agricultural production and exports

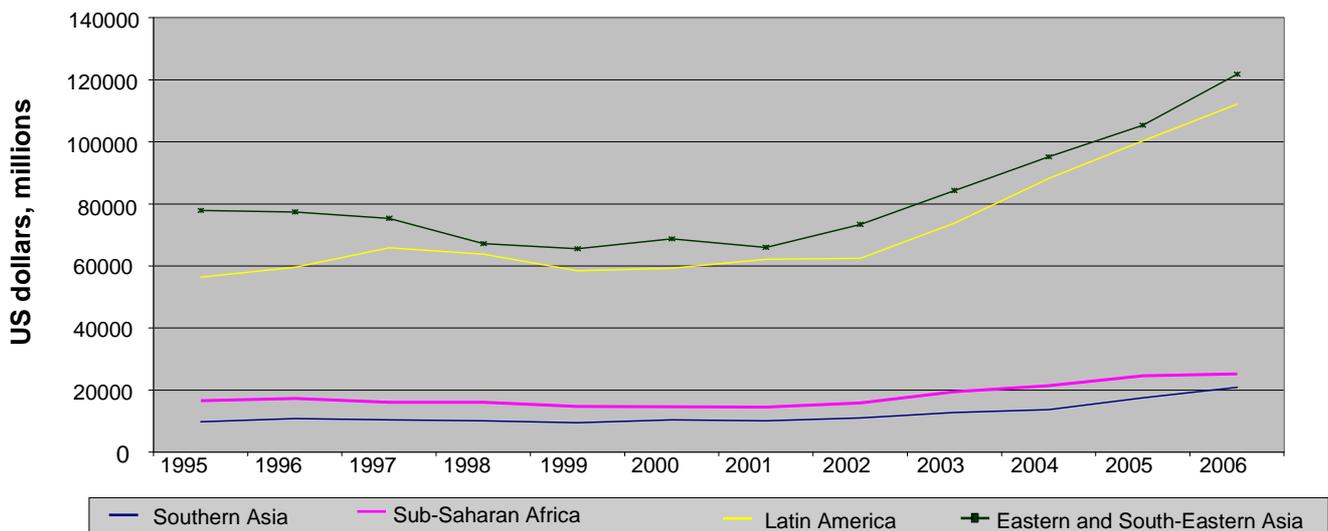
The SSA agricultural sector was not spared by the global economic slowdown in the late 1970s, which negatively affected most economies in the region. Within a context of improved macroeconomic conditions, the sector recovered from this downturn in about the mid-1990s. Subsequently, agricultural growth accelerated to 3.8 per cent per annum between 2001 and 2005 from 2.3 per cent during the 1980s (World Bank, 2008). However, this did

Figure 1. Agriculture as a proportion of GDP



Source: UNCTAD (2008a)

Figure 2. Agricultural exports by value*, SSA and other developing regions



Source: UNCTAD, 2008a

Note: Total exports of primary commodities by value, excluding fuels, ores and metals.

not reflect much in the indicators of the agricultural sector's performance, such as its contribution to total output or its value.

The contribution of agriculture to total output in SSA generally stagnated between 1980 and 2006 at about 19 per cent (Fig. 1). In value terms, SSA agricultural production remained stable between 1995 and 2000: while the nominal value of agricultural exports declined slightly from about \$16.6 billion to \$14.7 billion between 1995 and 2000, before a recovery to \$25.3 billion in 2006 (figure 2).

Juxtaposed with the performance of agriculture East and South East Asia, there are some striking differ-

ences. The proportion of agriculture in East and South East Asian economies fell significantly over the period under consideration, due to the increasing share of manufactures. The outcome of this as depicted in Fig 1 is that SSA has become the region in the developing world with the highest ratio of agriculture to GDP since 2000, a manifestation of the lack of structural transformation. Similarly, the increase in the value of SSA agricultural exports following liberalization appears rather modest when compared to the significant increases in the value of agricultural exports by Latin America and Eastern and South Eastern Asia (figure 2).

How do we explain this rather weak performance of the

diversification in several countries towards horticultural exports. However, African countries have remained by and large very small players in this market. Africa's agricultural exports have thus remained overwhelmingly concentrated in traditional bulk commodity exports, which have also become concentrated in a smaller number of countries.

Furthermore, the contribution of agricultural exports to total output does not appear to have undergone any significant change over the period under consideration. Of the 38 African countries for which data is available for at least two decades, only five recorded agricultural exports in excess of one-fifth of their GDP (Cote d'Ivoire, Ghana, Malawi, Seychelles, and Swaziland). Seychelles recorded a substantial growth in its agricultural exports during the 1990s and especially during the most recent period, 2000-2006. The remaining four countries have been consistently high exporters of agricultural commodities since the 1980s. Two countries, Benin and Madagascar, have also increased their agricultural exports significantly since the 1980s, with exports exceeding 10 per cent of their GDP in 2000-2006 (World Bank, 2007).

3. Explaining Africa's agricultural exports performance

3.1 Policies matter

As mentioned earlier, trade liberalization due to its impact on relative factor prices was expected to lead to increased production of tradables. That is, increased exports and changes in the composition of such exports. Given the relative importance of agriculture in African countries one would therefore expect an increase in agricultural exports as well as some diversification into new agricultural exports.

Trade liberalization has created a price incentive structure which has contributed to some of the positive developments noted above. Nevertheless, a closer examination of some of the successful agricultural exporters reveals that the main factors that underscore this performance, with the possible exception of the devaluation of the CFA franc, go beyond trade liberalization and represent deliberate efforts by governments to develop the agricultural sector.

The consistently high agricultural exports noted in the case of Cote d'Ivoire appear to have resulted from huge investments made in the agricultural sector during the 1960s. This was part of the country's development

strategy anchored on cash crops (coffee, cocoa, and timber) and later reinforced by secondary agricultural export crops such as bananas and pineapples. Furthermore, after 1965, the government launched a "Crops Diversification" policy with the objective of, *inter alia* increasing total export receipts and promoting a dynamic agro-industrial sector based on raw materials from local commercial crops. This policy led to the introduction of new crops such as soya beans and cashew nuts, and to the transfer of some crops from one region to another in order to improve the quality and productivity of commercial crops already in production, including pineapples and rubber (Traoré, 1990).

Ghana's performance could be explained by the somewhat *ad hoc*, but successful programmes to promote non-traditional agricultural exports such as pineapples, cashews, pepper and shea nuts. While there were some remarkable increases in cocoa exports in the 1990s after the steep declines experienced in the 1980s, these did not come from new planting as much as from diversion of cocoa that was previously smuggled to Côte d'Ivoire back into Ghana (Herbst, 1993). On the other hand, successful resistance by successive governments of the National Democratic Congress and the People's National Party to the pressure from donors to privatize fully the cocoa marketing system meant that Cocoa Marketing Board (CMB) still provides some support, albeit limited, to the cocoa sector. The increases in cocoa exports since 2000 are due to two main factors: new plantings and associated increases in acreage cultivated during the 1990s; and the programme of the Peoples' National Party government to supply inputs (fertilizers and insecticides, spraying guns) through the CMB to farmers.

The devaluation of the CFA Franc in 1994 helped to improve the competitiveness of all exports from the franc-zone. In addition, specific factors in countries such as Benin helped to boost agricultural exports. By the 1990s Benin had become politically stable, and financial sector crises sparked by the collapse of its main commercial banks had been successfully resolved by the end of the decade. These factors coupled with increased area devoted to cotton cultivation and the implementation of a Cotton Sector Reform Project⁵ jointly implemented by the World Bank and the Government of Benin in 2002 helped to sustain its cotton exports in recent years.

The recent improvements in maize production and output in Malawi since the drought of 2005 have been attributed mainly to the government's fertilizer subsidy programme.

According to government estimates, the 2007 maize crop harvest was about 70 per cent higher than the average for the past five years. Malawi has thus become a regional exporter of maize.⁶ However, as discussed later, sustained improvements in agricultural productivity and output would require a more comprehensive policy package that addresses the various constraints on the supply response agriculture, and not just subsidized fertilizer.

Overall, there have been some positive developments in African agriculture following trade liberalization, although these remain limited. Indeed, the present state of African agriculture has come under greater scrutiny in recent months because of the food and fuel crises, which have eroded the gains of the recent high prices accruing the exporters of traditional commodities. The very high food price increases in recent years has created a global food crisis which is affecting most the low-income net food-deficit countries (LIFDCs).⁷ The fact that most of these LIFDCs are in Africa has raised serious questions about the performance of the agricultural sector in the aftermaths of trade liberalization.

3.2 Weak supply response

Advocates of trade liberalization believed that agricultural exports were constrained by misguided policies, such as the high taxation of agriculture, to promote import substitution industrialization. Hence, it was assumed that simply removing these constraints, *inter alia*, by aligning producer prices with world prices while promoting the development of private input and output markets ("getting prices right"), would provide the right incentives for increased production of agricultural exports. The sector was thus expected to benefit from policies such as reducing over-valuation of the exchange rate and the dismantling of marketing boards and a more stable macroeconomic environment.

This diagnosis, however, represents only a partial understanding of the problem, and takes no account of the structural problems that plague the agricultural sector in Africa. Thus, while trade liberalization addressed policy-induced barriers to trade, it was not integrated with sectoral policies which could have addressed these supply side response issues. These problems have prevented the region from attaining its full potential in agricultural exports even within the context of improved macroeconomic fundamentals.

The agricultural sector is by no means homogenous in

all countries and across different agro-ecological zones, and a myriad of agricultural production relations and institutions can be found all over SSA. However, it is commonly agreed that the response of agricultural production to price incentives is determined by how structural and institutional factors influence not only productivity but also profitability. These factors include the socio-economic structures, physical infrastructure which impedes the efficient functioning of rural and urban markets. Other factors that determine the response of the agricultural sector in SSA to policy incentives are the weak agricultural research and extension system, low productivity due to reliance on rudimentary agricultural technology, paucity of credit and agricultural inputs, including land, labour, and gender relations, supply of basic consumer goods, and high levels of risk. Within this context, the elasticity of total farm output and agricultural exports to policy changes, including changes in price could hardly be expected to be very large, particularly in the short to medium term.

Indeed, empirical evidence suggests that aggregate supply response of agricultural production to price incentives is much weaker in low-income countries because of these non-price constraints⁸ (UNCTAD, 1997a; 1998a). However, while there is some consensus that these non-price factors constrain agricultural production and productivity, there is no agreement on how they could be removed. Also, there is no consensus on whether there are trade-offs between policies which address these and policies that support the attainment of the "right prices".

(a) Short-run supply response⁹

One channel for the short-run supply response of agricultural production to the price incentives created by policy reforms is the "vent for surplus" effect, which occur as idle land is brought under cultivation, coupled with increased utilization of labour in response to price incentives, or greater availability of incentive goods.¹⁰ This was the experience of countries such as Ghana, Madagascar, Mozambique and the United Republic of Tanzania at the beginning of their trade liberalization programmes. This, however, is essentially a one-off response as there are limits to the availability of unutilized resources, such as land (see also, Pratt and Yu, 2008), the use of which is governed by the traditional tenure system, which may not respond immediately to the demands for increased land for cultivation. Also, complex gender divisions of labour in most farming communities determine how much (female) labour is allocated to what tasks or crops, and how in-

come from farming activities is distributed within the household.

A second channel for short-run supply response is the reallocation of resources in order to attain efficiency gains, which depends on three factors: (i) the level of capitalization of farm operations and the level of flexibility this grants households to reorient production; (ii) the commitment of households to meet part of their subsistence needs through their own production, which in turn depends on the level of efficiency of rural food markets; and (iii) gender relationships which determine the flexibility with which households can reallocate resources.

Agricultural intensification is the third process for a short-run positive supply response in agricultural production. This could be labour-based or a combination of additional labour and other variable inputs, such as organic and chemical fertilizer. In most African conditions, however, sustainable intensification requires additional capital. As such, it depends on the assessment of risk, credit availability, skills and appropriate intensification packages. One observable trend in African countries during policy reform is the decline in the use of purchased inputs, such as fertilizer for a variety of reasons, including the removal of subsidies, and the dismantling of marketing boards. The decline was, however, not uniform across countries (Pratt and Yu, 2008).

While policy reforms, such as decontrolling prices, cutting or eliminating fertilizer subsidies and privatization did help to improve fiscal discipline in most African countries, their effect on agricultural production and exports has been far from benign.¹¹

(b) *Investment and productivity growth*

Even if the structural constraints to short run agricultural supply response are addressed successfully, long-run trends in productivity and output, and export performance depend on the pace of investment and technological progress. In predominantly agricultural economies, the major source of investment funding for both agriculture and other sectors is the net agricultural surplus.¹² However, African agriculture is so severely undercapitalized, with many farmers trapped in a low-productivity and subsistence cycle of poverty, so the injection of external resources is a *sine qua non* for increasing agricultural productivity and growth.

Credit constraints

There is conflicting evidence on whether insecure land titles, stemming from the myriads of African land tenure systems promote or discourage new investments to improve land.¹³ However, it is generally agreed that insecure titles deny farmers the right to use land as collateral to secure loans from the banking system to finance new investments.. With reduced credit from the formal system, in part because of financial sector reforms implemented as part of market-oriented reforms (UNCTAD, 1997b, Bronwbridge and Gayi, 1999), and little or no net agricultural surplus, both short- and long-term investment in agriculture appeared to have suffered.

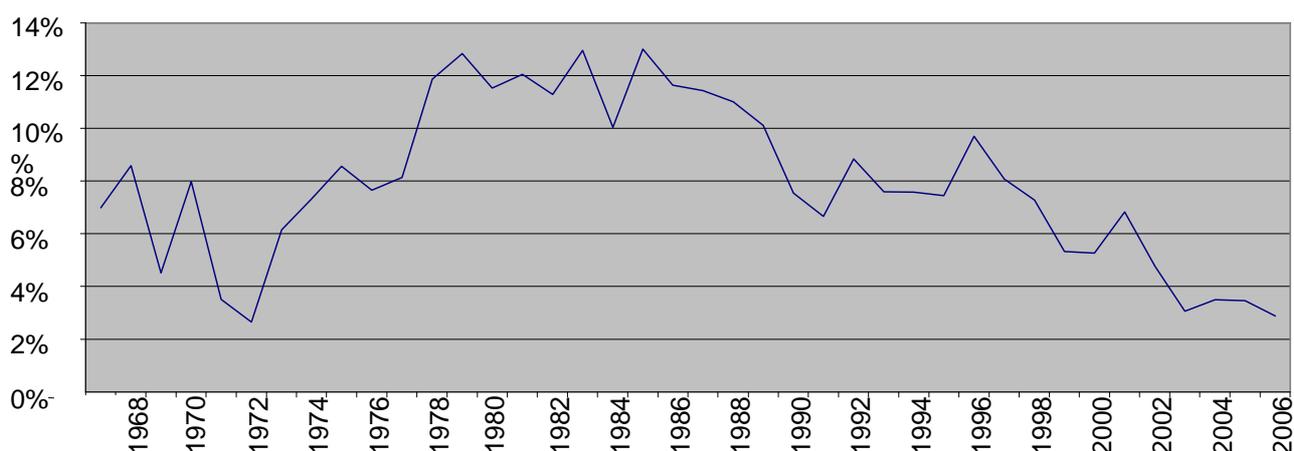
Public investment

The reforms have created opportunities for private investments in agricultural enterprises, but the profitability of these investments remains very much dependent on public investment in infrastructure; that is, the supply of "public goods". Improvements in rural transportation enhance the functioning of product and input markets and increase real returns. Investments in potable water, electricity, health and educational facilities improve the overall quality of rural life. They also boost agricultural productivity as well as reduce the number of farm work days lost through ill-health. Reduced public investment during the period of reforms, and resulting weak infrastructure frustrated the development of more efficient markets.

In SSA, there are also problems with *agricultural research*, which is the key to the rate of technological change. The small size of countries and research stations, dispersion and high staff turnover have all combined to frustrate the attainment of a "critical mass" of scientific and technical staff. The outcome of this is that, with the notable exception of maize (and more recently cassava and rice), most of SSA has no immediately applicable crop technology that might (with adequate price incentives) substantially increase the profitability of investments in agriculture.

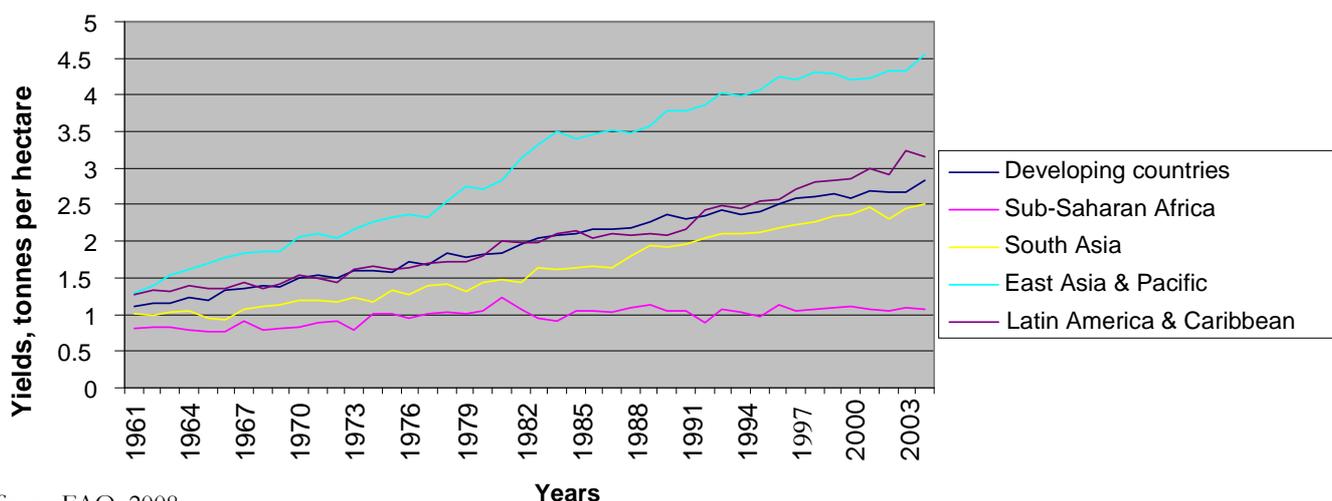
A reduction in *donor support* for agriculture has also meant that there are fewer resources to devote to addressing the problems of the sector. Overall, donor support for agriculture declined steadily from its peak of \$8 billion in the early 1980s to \$3.4 billion in 2004. This decline is evident in both multilateral and bilateral support, and also in relative terms. For example, the proportion of total ODA going to agriculture declined from a peak of 16.9 per cent in 1982 to just 3.5 per cent in 2004.

Figure 4. DAC ODA to Agriculture, fisheries and forest as proportion of total DAC ODA, 1967-2006



Source: OECD, 2008b.

Figure 5. Cereal yields, SSA and other developing regions



Source: FAO, 2008a.

Comparative figures in respect of ODA from DAC group of countries are 13 per cent and 3 per cent over the same period (Fig. 4). In the case of Africa, World Bank lending to agriculture fell sharply from \$419 million in 1991 to \$123 million in 2000, although this recovered to \$685 million in 2006 (World Bank, 2008). And total ODA to African agriculture declined by more than fifty per cent from \$3.2 billion in 1988 to \$1.2 billion in 2004. The sharp decline in aid to agriculture since the early 1990s reflected not only the limited success of aid to agriculture but also a shift towards adjustment lending with a greater focus on economic liberalization (OECD, 2008a).

It appears the decline in ODA to agriculture has often translated into a decline in public investment expenditure in agriculture in SSA because in many countries,

this was externally financed. The proportion of government expenditure going to agriculture has declined in several African countries over the past two decades during the period of market-oriented reforms (OECD, 2008a).¹⁴

Low yields

It comes as no surprise therefore that African agriculture lags behind the other developing regions judging by all indicators of agricultural productivity and the use of modern inputs. In 2004, for example, the FAO reported that although Africa has the highest agricultural area per capita in the developing world, it has the lowest irrigated area (3.7 per cent)¹⁵ and fertilizer consumption (12.6 kg/ha/arable land). This is much below the developing country average of 22.7 per cent and 109.0 kg/ha/arable land respectively (see table 13.7 in Gayi, 2007).

Only a quarter of the total crop area of SSA is planted with modern crop varieties. Asia adopted these varieties as far back as the 1960s, and about 80 per cent of South and East Asia's crop area is under these varieties four decades later. The use of chemical fertilizer has expanded in all regions of the developing world except SSA. Considering that over the past three decades higher fertilizer use accounted for at least 20 per cent of the growth in developing country agriculture¹⁶ (World Bank, 2008), one can understand the slow agricultural growth, including the stagnation of cereal yield in SSA since 1984 at around 1000 kg/ha/arable land (Fig. 5).

For two of the main traditional commodity exports of Africa, cocoa and coffee, Asia's productivity has much higher than that of Africa over the period, 1961 to 2005. This is particularly in the last decade when the yield gap increased between the two regions. In 2006, for example, Asia's productivity in both crops was almost double that of Africa's: 1,100kg/ha and 830kg/ha for cocoa and coffee respectively compared to Africa's 540kg/ha (cocoa) and 450kg/ha (coffee). However, for reasons that are not immediately apparent, tea yields have been consistently higher in Africa than in Asia over the same period and reaching 1,930 kg/ha in 2006, about one-third higher than Asia's yield of 1,269kg/ha (FAO, 2008a). Therefore, Africa does not seem to have any intrinsic reason for being trapped in low productivity cycle for other agricultural exports. The continent can also attain levels of productivity comparable to those of other developing regions if only there is the will and the resources to address the problem as can be seen from the example of tea.

It would, thus, appear that the source of the increase in agricultural production in Africa noted earlier is from more enhanced utilization of existing resources rather than increases in productivity and investment growth. This increase also coincided with the recovery in resource inflows and imports. Trade liberalization, and in particular the reduction in overvaluation of the exchange rate, increased incentives to produce for exports and reduced the shortages of basic consumer (incentive) goods in the rural areas (UNCTAD, 1998). It was, however, not complemented with policies addressing the key constraints on investment and productivity which are crucial for the long-term performance of the agricultural sector.

The supply response in agriculture and exports after trade liberalization would have been much higher if

trade liberalization had incorporated a complementary policy package to address the structural constraints on agriculture. Consequently, much of African agriculture has not experienced the structural transformation that took place in other developing regions in the production of traditional bulk agricultural commodities and in international horticulture and processed food markets. Paradoxically, while developments in the global markets for the latter have opened up new business opportunities for African countries, it has also increased the competitive pressures on the continent in responding to these opportunities. The next section explores some of these external constraints to the participation of African agricultural producers in the international trade in new market dynamic agricultural products.

3.3 External constraints

(a) *Market access*¹⁷

The majority of African countries benefit from preferential market access schemes of various types. The least developed countries (LDCs) and other low income African countries benefit from two types of such schemes in their main export markets. These include, the African Growth and Opportunities Act (AGOA), and the Everything But Arms (EBA) of the United States and the EU respectively. The African Caribbean and the Pacific (ACP) Group of countries also enjoy preferential market access to the EU within the framework of the Cotonou Agreement, which is currently being replaced by the Economic Partnership Agreements (EPA).

However, many agricultural products face tariff peaks (very high tariffs) and tariff escalation (higher tariffs on processed products), which discourage diversification into higher value-added products (McCalla and Nash, 2007). Thus, African countries may yet encounter market access problems in trying to expand into higher value added products. This highlights the importance of country specificity in drawing conclusions on the market access conditions for African countries. For example, African countries that specialize in certain agricultural exports (e.g., meat, milk, sugar, or some cereals) are penalized just as those that export to highly protected markets.¹⁸ And average tariffs on agricultural products are much higher than those on manufactures (McCalla and Nash, 2007) as international trade in agriculture is one of the items on the built-in agenda for which negotiations are still on-going.

The Doha Work Programme has the long term objective of establishing a fair and market-oriented trading system, including correcting and preventing restrictions and distortions.

tions in world agricultural markets. The Work Programme aims at, *inter alia*, "substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support" (WTO, 2001). Some progress was made in the agricultural negotiations during Hong Kong WTO Ministerial Meeting in 2005 (see, WTO, 2005), but some observers have pointed out that these amount to no more than marginal gains for developing countries. This is because the Ministerial Declaration does not call for the elimination of domestic subsidies in major developed countries. It does not envisage curbing or effectively disciplining the "green box" subsidy of major developed countries¹⁹ (Das, 2006; Sharma, 2006). Finally, the formulas for cutting tariffs and subsidies, the so-called core modalities, and the treatment of sensitive products were not resolved (Heydon, 2006).

In addition to these concerns over the progress agricultural trade liberalization, Africa still faces market access problems in the form of non-tariff measures (NTMs) being deployed as non-tariff barriers (NTBs). African exports are subject to increasingly stringent standards within the context of the WTO Agreement in the Application of Sanitary and Phytosanitary (SPS) requirements as well as Technical Barriers to Trade (TBT).²⁰ This has given rise to concerns about these Agreements at two levels.

First, the lack of transparency in the application of these requirements and contingency protectionist regimes (e.g., anti-dumping) has led to their being perceived as NTBs. Indeed, some studies have contended some African countries have suffered losses of export revenue as a result of this.²¹ Second, several African countries do not have the technical capacity and resources to comply with the required standards.

Building the necessary laboratory and managerial capacity to meet the TBT and SPS standards in export markets has therefore become a prime issue for technical assistance programmes directed at trade and trade-related infrastructure of African countries. Such activities should also be prioritized within the framework of "Aid for trade" capacity building programmes.²²

(b) Competitive pressures in the global trading system²³

These problems of SSA agriculture have been exacerbated by the more recent developments in international trade for agricultural commodities. Marketing and dis-

tribution channels are now increasingly dominated by supermarkets within a context of global consumption patterns and new demands linked to production, technology, and health and safety concerns of food. The health and safety concerns of food underscore the requirements for traceability of supplies, which have in turn reinforced the dominance of global commodity market chains or global value chains (GVC) (Fitter and Kaplinsky, 2001; Gibbon and Ponte, 2005).

The tightening of demands associated with the participation in these GVCs has compounded the challenges faced by Africa in its efforts to expand new income elastic agricultural exports. Participation in networks has become an important requirement for accessing developed-country markets. And, in order to gain competitive advantage in global markets, there is now increased premium on accurate information, timely delivery, and packaging. This creates entry barriers to new suppliers such as those from Africa. Considering the weaknesses of Africa's private sector, underdeveloped and unreliable transport and communication networks and weak institutions, there is little evidence that this enormous competitive disadvantage would be overcome in the foreseeable future (UNCTAD, 2003; Havnevik, et. al., 2007).

4. What are the policy options?

Agriculture ... offers great promise for growth, poverty reduction, and environmental services, but realizing this promise also requires the visible hand of the state—providing core public goods, improving the investment climate, regulating natural resource management, and securing desirable social outcomes. (World Bank, 2008: 2).

This section discusses some specific policy proposals that could help strengthen Africa's export performance. It is by no means exhaustive but rather indicates some specific policy perspectives, which follow from our earlier discussion. The proposals are based on the view that export development requires more than trade liberalization and that trade policy needs to be closely linked to sectoral development policies. Constraints on supply response are best addressed by specific sectoral policies and not just macroeconomic policy reforms. Macroeconomic and political stability as well as policy predictability are necessary foundations for the efficacy of agricultural sectoral policies in Africa. Given that some of the problems facing Africa's agricultural exports have to do with conditions in global markets, the strategy to promote Africa's agricultural exports must be based on policies by national govern-

ments, working in cooperation from Africa's development partners.²⁵

The overall development strategies of countries should incorporate an "Agricultural Sector Development Strategies" (ASDS), which takes into account the agro-ecological conditions of each country, and go beyond strategies for developing crop agriculture. ASDS should incorporate complementary programmes to develop off-season employment activities as a means of revitalizing the rural economy and addressing food security concerns within a holistic framework. Increased opportunities for all-year round employment will also help to stem the flow rural-urban migration of able bodied young people who could then be encouraged to take to farming as a profession and replace growing population of ageing farmers. ASDS should incorporate some or all of the following issues depending on the development priorities and agro-ecological conditions of each country.

4.1. Supply-side constraints

These constraints should be addressed through an integrated programme of "supply-side measures" with two main objectives of tackling supply-side constraints critical to: (i) Creating greater incentives to encourage investment in the agricultural sector, and to improve agricultural productivity and exports. (ii) Enhancing the competitiveness of African agricultural exports. Some of the essential components of the integrated programme of "supply-side measures" are discussed below.

Incentive Package

A comprehensive *package of fiscal and other incentives* to investors in the agricultural sector should be developed consonant with the government's macroeconomic objectives and agricultural development priorities. This may comprise (i) an input subsidies programme, carefully designed and targeted at specific groups to improve agricultural productivity; (ii) Improving access to credit by enhancing the efficiency of the financial sector; (iii) Donor or private sector supported "Special Export Development and Investment Funds" to provide financial resources in support of business ventures in agriculture.

Improving productivity

The state, or in collaboration with private sector agents, should increase the level of *investment in technology*,

infrastructure (roads, irrigation facilities, post-harvest storage) extension services, supply of inputs, R&D to improve productivity and quality of smallholder farms, as well as to improve marketing systems. Governments should endeavour to meet their commitment under NEPAD's Comprehensive Africa Agriculture Development Programme (CAADP) to increase public expenditure on agriculture as a share of total government expenditure to 10 per cent by 2008.²⁶ Specifically, increases in productivity and in agricultural supply response could be attained through public programmes in the context of "green box" policies,²⁷ especially to support poor farmers in remote rural areas. These policies are classified as non-trade distorting, and are not proscribed by the WTO Agreement on Agriculture.

Reforming socio-economic institutions

In the medium to long-term, governments have to deal with *socio-economic institutions* that inhibit the efficient deployment of various factors of production, such as land tenure systems and associated inheritance systems, and gender relations. This will necessitate specific policies for land reforms; and improving the property rights of women who account for much of the agricultural production in SSA.

4.2 Diversification and value-addition

Governments have to develop programmes which promote diversification towards higher value-added products. An essential element of this should be to collate and disseminate market information to producers on new market dynamic, income elastic products. This should be in partnership with Export Promotion Authorities and collaboration with exporters' associations. As the opportunities for such diversification are influenced by the existence of sanitary and phytosanitary standards (SPS) in international trade, and the capacity of producers in African countries (especially small farmers) to comply with them, there is the need for complementary programmes to promote market penetration and improved market access based on compliance with these standards (see next section).

4.3 Market access

The determining factor in market entry is the capacity to upgrade and produce according to specific requirements relating to quality, health and environmental standards as well as consumer preferences and tastes. At present, some African producers encounter difficulties in meeting these standards. This notwithstanding, standards have an important and positive role to play in the development

and expansion of world trade. For example, the compliance with sanitary and phyto-sanitary standards enables the effective management of risks associated with the spread of plant and animal pests and disease. Compliance with these standards also helps to stimulate value addition, innovation and product differentiation.

To assist with compliance with trade standards, governments in collaboration with exporters' associations, could set up capacity-building programmes to upgrade the capacities of countries to comply with such standards. Similarly information bureaux on requirements for participating in global value chains will promote the utilization of opportunities in dynamic markets. Some of these programmes could be supported by donors bilaterally or within the framework of aid-for-trade.

Liberalization of international trade in agriculture should go hand in hand with policies to ensure an objective application of various measures on SPS, TBT and environmental standards, which are increasingly being deployed as non-tariff barriers, even as tariffs are being eroded. Ongoing agricultural negotiations in the Doha Round provide a legitimate framework within which to address the pressing market access problems of Africa's agricultural exports.²⁸

4.4 Private sector participation

A major challenge for new African entrants is how to identify market opportunities and meet the specific requirements for each market. This necessitates a constant examination of diversification opportunities, as areas of competitive advantages are dynamic and change constantly over time. Considering the weakness of the private sector in much of Africa, and the "public goods" nature of these services, they would have to be provided by governments or in partnership with the private sector under PPP (public-private partnership) arrangements depending on country circumstances. Also, the application of global value chains to agriculture means that private sector development in agriculture cuts across several policy domains, including improvements in the overall business environment and contract enforcement, and the development of business service providers. .

4.5 Regional integration, South-South trade

Governments, in partnership with the private sector, need to promote regional economic cooperation with the objective of overcoming the constraints of small

domestic markets and diversifying away from traditional bulk primary commodities into market-dynamic products. Africa already has a variety of regional economic groupings at different stages of trade integration. However, a major problem for most of them is the weak implementation of trade protocols signed by members. Thus, there is the need to ensure that countries comply with the obligations of all regional trade protocols they have entered into in order to promote intra-African trade in line with NEPAD priorities.

The emergence of "Southern drivers" of the global economy suggests that Africa has to rethink its existing trade and development strategies and reorient its external trade towards new growth poles in Asia, such as China and India, but also Brazil and Russia. This calls for innovation on the part of governments and the private sector, including exporters' associations, and enhanced participation in various South-South trade cooperation arrangements (e.g., Forum on Asia-Africa Cooperation in Export Promotion).

4.6 Development partnerships

It is important to sustain the recent increases in aid to SSA agriculture in view of the important role of ODA in funding public investments. However, greater coordination and harmonization of aid among donors and with recipient countries will be critical in ensuring its effectiveness (UNCTAD 2006) in addressing the priorities of the agricultural sector in each country. African countries require technical assistance programmes to help them adjust to the new global environment in particular the food and health standards enunciated in SPS and TBT Agreements as well as the private standards of supermarkets. These could be delivered with the framework of "Aid-for-Trade" and other trade and trade-related technical assistance, such as the Enhanced Integrated Framework which was designed to integrate trade into the national development plans and co-ordinate delivery of trade-related technical assistance to LDCs. Indeed, A few of such trade capacity building programmes supported by both the EU and the US are already running and are excellent examples of bilateral cooperation between Africa and its trading partners to provide trade and trade-related infrastructure to facilitate market penetration (see, UNCTAD, 2008b and EC, 2008).

Concluding remarks

This analysis of the performance of agricultural exports in Africa suggests that the positive developments after trade liberalization remain limited and modest particularly in comparison to other developing regions. This is, in part, because trade liberalization lacked complementary policies to address the incentives, structural and institutional constraints that are most critical for enhancing agricultural productivity, output and exports. These constraints have persisted and frustrated the positive response of agricultural exports to the new incentive framework created by trade liberalization. Production and marketing costs have increased during liberalization with the removal of subsidies and currency devaluations; while the dissolution of marketing boards added price risks to the uncertainties of rain fed agriculture. The consequence is that much of Africa continues to be dependent on traditional bulk agricultural commodities as a major source of its export earnings. Paradoxically, Africa has been losing its market shares in even these exports to other developing regions.

Africa has made a start in the exports of new market-dynamic agricultural products, but these remain rather small compared to the continent's potential in these markets. The private sector and private-public partnerships (PPPs) are critical in exploiting the opportunities in these markets. However, there are very few African countries in which the private sector is developed enough to assume the lead in gaining access to global value chains (GVCs) and in penetrating the markets for these products. Thus, resuscitating the capacities of the African state will be crucial, particularly in the long run, to any meaningful improvement of Africa's position in GVCs and therefore greater participation in the international trade in new market-dynamic products (Gibbon and Ponte, 2005). The importance of the role of the state in providing these "public goods" is no longer contested even by the architects of Africa's trade liberalization (see for example, World Bank, 2008).

It follows that policy interventions to improve the export performance of agriculture should be targeted at specific socio-economic issues and institutions that have been identified as frustrating Africa from reaching its true potential in international agricultural trade. The main objective of an Agricultural Sector Development Strategy (ASDS) should be to improve agricultural productivity and efficiency of agricultural trade. As such it should be directed, *inter alia*, at increasing public in-

vestments in R&D, rural infrastructure, including roads and irrigation facilities as well as in health and education. Facilitating access to inputs, encouraging new investments, and enhancing access to market information would also help in improving the overall efficiency of agricultural trade. A speedy conclusion of ongoing agricultural negotiations in the Doha Round in a manner that responds to the development interests of African countries would also be critical for Africa's agricultural trade in general.

In the final analysis, however, ASDS cannot realistically be formulated independent of other sectors. It should be an integral part of overall economic development policy. In their design of policy packages, such as ASDS, to develop the agricultural sector, in particular to diversify and enhance agricultural exports, governments have to make complex policy choices taking into account the inter-sectoral dimensions as well as various linkages between agricultural, manufacturing, and services sectors. The tragedy of Africa's agriculture is that in the past quarter of a century, agricultural policies have been formulated with little thought to inter-sectoral linkages. And as part of economic policy reforms, the critical role of the state in the provision of "public goods" has been undermined, evidenced by drastic reductions in government's agricultural expenditure as a share of its total expenditure.

Notes

1. Most of these traditional commodities, for example coffee, cocoa, tea, sugar and sugar products have suffered significant declines in trade volumes from 18 to 11 per cent between 1980-1981 and 2000-2001, while the volume of international trade in fruits and vegetables increased by about 15 per cent. Internationally traded volumes in the case of rice, chickens, and cut flowers increased by more than 40 per cent in each case between 1993-1995 and 2003-2005 (Havnevik, et al., 2007: 26).
2. Despite the strong increases in nominal export prices for a range of primary agricultural commodities in recent years, the overall trend depicts a fall in real prices between 1993-1995 and 2003-2005 (Havnevik, et al., 2007: 26). For a detailed discussion of high price volatility and its impact on African economies, see UNCTAD, 2003a, in particular pp. 2-22).
3. Of the 48 countries for which data was presented over the period, 2003-2005, primary commodities made up more than 90 per cent of the total exports of 13 countries, including eight which are oil exporters; and more than 75 per cent of half the total number of countries. Excluding fuels, primary commodities made up at least 70 per cent of the total exports of one in three countries. Almost all the ten countries for which primary commodities

(including fuels) made up less than 50 per cent of the total exports are middle-income countries.

4. Indeed, the transforming economies in South Asia, East Asia and Pacific and Middle East and North Africa, have accounted for about two-thirds of agricultural growth in the developing world mainly through productivity gains rather than through expansion in land devoted to agriculture. Cereal yields in East Asia rose by 2.8 per cent a year between 1961 and 2004, far more than the 1.8 per cent recorded in the industrial countries (World Bank, 2008b).

5. The main objective of the reform is to increase the productivity and efficiency of the cotton sector by moving from a monopolistic structure to a system based on competition. It also aims at expanding cotton production while spreading the productivity gains and income increases to a larger number of cotton producers and generating multiplier effects within and outside the cotton sector and the rest of the economy

6. In 2007, a 50kg bag of fertiliser was sold to farmers at about \$6.50. That is, at a quarter of the price (about \$27.00) in 2004. See, http://africanagriculture.blogspot.com/2008/02/caution-urged-on-malawi-fertilizer_11.html

7. The Low-Income Food-Deficit Countries (LIFDC) include food deficit countries with per capita annual income below the level used by the World Bank to determine eligibility for IDA assistance (i.e. \$1,575 in 2004). In accordance with the guidelines and criteria agreed to by the Commission for Africa, these countries should be given priority in the allocation of food aid. All African countries, except five, are LIFDCs. The exceptions are Algeria, Gabon, Libya, Namibia and South Africa.

8. This is the main conclusion reached by in the large Economics literature on the elasticity of supply in agriculture to price signals which deals with mostly methodological issues and the quality of data for evaluating supply response in different socio-economic contexts. However, this is not discussed here as it is not directly related to the discussion in this section.

9. Unless otherwise stated, the discussion in this section is based on UNCTAD, 1998, chapter III.

10. These include consumer goods such as soap textiles, sugar, cooking oil, tinned milk, matches, roofing sheets, radios and bicycles among others, which were in short supply because of the collapse experienced by many countries prior to the implementation of adjustment programmes.

11. This much has been acknowledged by the Independent Evaluation Group that reviewed World Bank assistance to agriculture in SSA in 2007 (World Bank, 2007).

12. This is defined as the agricultural value added less the total consumption of agricultural producers.

13. It is still an open question whether tenure system encourage or discourage investments and agricultural innovation. There is some evidence that indigenous land tenure systems, including the rules of inheritance, which necessitate the division of a deceased's farm(s) among numerous heirs have often reduced farms to sizes, which are too small - or where the deceased had several farms to scattered plots, which are too far apart - to justify any meaningful investment. On the other hand, it has also been suggested that investments to improve land are actually increased under this system because they can increase the security of use rights (UNCTAD, 1997b; 1998a).

14. In one of the earliest reforming countries, Ghana, for instance, the proportion of government total budget to agriculture declined from 10 per cent in 1983 to just 3.5 per cent in 1988 (see, <http://www.country-studies.com/ghana/the-economic-recovery-program.html> - accessed 18 May 2008); In Burundi, fiscal reforms, including the privatization of state-owned financial institutions, led to a drastic reduction in the already low level of credit to the

agricultural sector in favour of commerce or trading. Agricultural credit declined from 2.5 per cent of total domestic credit to under 1 per cent between 1980-1994 and 2003-2005 (Nzobonimpa, et al 2006).

14. This proportion is far lower than the level attained by other developing regions attained even in the early 1960s.

15. This excludes dry land agriculture.

16. For detailed discussions on market access issues and subsidies, see UNCTAD, 2003a, pp. 22-26.

17. Exports from Benin, Malawi, Mauritius, Swaziland and Togo, for instance, are penalized because they are mostly highly protected products, and preferences do not fully compensate for the loss. On the contrary, those of Chad, the Democratic Republic of the Congo and Libya are not, as these are mainly oil, gas, and mineral products (Bora, et. al, 2007).

18. The developed countries have been accused of "box-shifting" of domestic subsidies, whereby many of these subsidies subject to reduction commitments have been reallocated to the "green box" (Das, 2006; Sharma, 2006).

19. The SPS sets out the rules on food safety and animal and plant health standards. While it allows countries to set their own standards, it also stipulates that regulations must be based on science; and should be applied only to the extent necessary to protect human, animal or plant life or health. They should not arbitrarily or unjustifiably discriminate between countries where identical or similar conditions prevail. Member countries are encouraged to use international standards, guidelines and recommendations where they exist. However, members may use measures which result in higher standards if there is scientific justification.

20. See, for example, Wilson and Otsuki, 2001. One recent study has, however, suggested that the magnitude of the losses attributable to the stringent and non-transparent use of these standards is much smaller than the estimates of earlier studies (Rios and Jaffee, 2008). And yet another study estimates that SPS and TBT measures have on the whole a negative impact on trade in agricultural products and that exports of developing and least developed countries to OECD countries are significantly reduced by these regulations (Disdier, et. al., n.d., mimeo).

21. Some on-going technical assistance programmes are targeted at building trade capacity in selected developing countries. These include the Joint Integrated Technical Assistance Programme to Selected Least Developed and other African Countries (JITAP) (International Trade Centre UNCTAD/WTO), and the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries (EIF).

22. Except otherwise stated, much of the discussion in this section is from UNCTAD, 2003a.

23. The governance of these GVC (which defines the functional division of labour along the chain) determine the chain membership, oblige other actors to perform unwanted value-added activities, or alternatively to exclude them. Redistribution processes take place in the GVC along the axes of marginalization/exclusion and inclusion/upgrading (Gibbon and Ponte, 2005).

24. For a detailed discussion of these policies, see UNCTAD, 2003a; UNCTAD, 2003b; and NEPAD's CAADP at <http://www.fao.org/docrep/005/Y6831E/y6831e-01.htm#TopOfPage>.

25. Indeed, considering that most governments have already fallen short of this target, the timeline for meeting it should, perhaps, be extended to 2015.

26. The following measures are permitted under the Agreement: increasing expenditure for agricultural research, extension, training for specific food crops pest and disease control and even marketing. SSA governments could also provide infrastructure in support of agricultural development without falling foul of the provisions of the Agreement. These include: physical infrastructure to promote agricultural activities, including roads, electricity, water, dams and drainage schemes, environmental programmes and assistance for deprived regions. The calculation and application of the aggregate measurement of support (AMS) is not product-specific, and as such guarantees some flexibility in domestic support policies as long as global commitments reflected in individual country schedules are not exceeded

27. which are exempt from the calculation of a country's current total AMS. These policies encompass: agricultural input subsidies to low-income or resource-poor producers, investment subsidies, and government assistance to encourage agricultural and rural development. These exemptions allow considerable leeway for SSA governments to support their agricultural sectors (Gayi, 2007; see also Hodge and Charman, 2007).

28. For a discussion of some specific proposals on how the on-going negotiations of the Doha Round could help improve the agricultural sector, enhance exports and address in SSA food security concerns, see Gayi, 2007, pp 313-316.

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