Scaling-up Domestic Support for Sustainable Development of Agriculture in Kenya

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Abstract

Despite prospects for recovery of the agricultural sector in Kenya, there are a myriad of constraints and challenges. Among these are spiralling prices of key agricultural inputs such as fertilizer and energy, political conflicts and poor weather conditions. Coupled with resource constraints and poor timing of government responses, these constraints are likely to depress agriculture production and aggravate high food prices and uncertainty about access to food staples. Meanwhile, government expenditures on agriculture are minimal and can hardly stimulate desired production and growth rates. For instance, the current and projected expenditures on the entire productive sector fall below the recommended 10 per cent target reflected in the Comprehensive Africa Agricultural Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD).

The WTO agreement on agriculture discourages member states from increasing trade-distorting interventions or direct price payments to agricultural producers. It also provides flexibilities to enable member states undertake agricultural reforms to protect their livelihoods, food security and rural development concerns. Kenya has considerable freedom to scale up agriculture expenditures without the contravention of her domestic support commitments at the WTO. Such support can be packaged under the Green Box measures, which comprise government financed programmes and the de minimis provisions.

This study suggests a refocus to boost agricultural production and supply, including increasing national budget to agriculture, targeted provision of financial and technical support to farmers, accelerated investments in water and irrigation and agro-processing, and market development. These will facilitate attainment of the desired goals of the MDGs, CAADP, the Strategy for Revitalizing Agriculture and Vision 2030. The development and timely provision of better quality farm inputs and associated services targeting farmers, livestock keepers, fisher folk and traders will be central to successful implementation of these recommendations. However, the pre-condition should be enforcement of an appropriate legal and institutional framework designed to eliminate existing barriers to production, processing and marketing of agricultural produce.

Abbreviations and Acronyms

AMS	Aggregate Measure of Support
AoA	Agreement on Agriculture
ARD	Agriculture and Rural Development
ASALs	Arid and Semi-Arid Lands
CAADP	Comprehensive Africa Agricultural Development Programme
CAP	Common Agricultural Policy
CBK	Coffee Board of Kenya
COMESA	Common Market for Eastern and Southern Africa
EAC	East Africa Community
ERSWEC	Economic Recovery Strategy for Wealth and Employment Creation
EU	European Union
ERS-USDA	Economic Research Service – United States Department of Agriculture
FAO	Food and Agriculture Organization
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GoK	Government of Kenya
GTAP	Global Trade Analysis Project
HCDA	Horticultural Crops Development Authority
IFDC	International Centre for Soil Fertility and Agricultural Development
KCC	Kenya Cooperative Creameries
KMC	Kenya Meat Commission
KTDA	Kenya Tea Development Agency
LDCs	Least Developed Countries
MDGs	Millennium Development Goals
MoA	Ministry of Agriculture
NCPB	National Cereals and Produce Board
NIB	National Irrigation Board
OECD	Organization of Economic Cooperation and Development
PBK	Pyrethrum Board of Kenya
PRSP	Poverty Reduction Strategy Paper
SCM	Subsidies and Countervailing Measures
SD&T	Special and Differential Treatment
SRA	Strategy for Revitalizing Agriculture
TBK	Tea Board of Kenya
UNCTAD	United Nations Conference on Trade and Development
URAA	Uruguay Round Agreement on Agriculture
USA	United States of America
USDA	United States Department of Agriculture
WTO	World Trade Organization

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1. Introduction

The WTO Agreement on Agriculture (AoA) instigated the redefinition of agricultural policy and the role of governments in supporting the sector in many countries. The agreement established guidelines for limitation and gradual reduction of baseline support to agriculture to discourage over-production, subsidizing agricultural exports or dumping in world markets (Schnepf, 2005a). The guidelines are geared towards improving competition with regard to international trade in agricultural commodities and have slowly, but steadily, become an essential part of domestic agricultural reforms (Blandford and Josling, 2007; Butault and Bureau, 2006; Hart and Beghin, 2004; WTO, 2000a). In addition, the WTO serves as a medium of consultation on national agricultural policies that affect world production and trade in agricultural products for mutual benefit of all member states (Wilcox, 1949).

In developed countries, subsidies to the agricultural sector are often used to address market imperfections that result in too little production and redistribution of domestic income in a manner that enhances its political-economic welfare (Bagwell, 2007). But such subsidies may have negative effects in the world market; that is, they lower the world price of foreign export goods, thereby increasing the terms-of-trade and restricting market access to foreign exporters. It is from this context that developing and least developed countries (LDCs) see potential opportunities once the large trade distortions in world agricultural markets are either eliminated or substantially reduced (Allan, 2005).

Kenya became a signatory to the WTO Agreement on Agriculture when it came into force in 1995. From the face of it, Kenya favoured this agreement because it contained important concessions specific to developing countries and also because the government had by then cut down substantially on agricultural expenditures in line with the Structural Adjustment Programmes (SAPs) in the 1980s. However, some of the hidden provisions in the agreement included the commitment by the signatories to the effect that, in future, the aggregate level of support associated with all domestic agricultural policies should not exceed that provided for in the past and that such support should be gradually reduced on an agreed timetable (Konandreas and Greenfield, 1996).

Currently, Kenya has embarked on an ambitious agricultural reform programme under the Millennium Development Goals (MDGs) and Vision 2030. The programme requires substantial capital injections into the agricultural and rural development sector in the medium to long term. It is in this context that this study seeks to review the options that the country has within the WTO provisions to scale up agricultural support to meet contemporary development objectives.

1.1 Research Problem

Prior to signing the WTO agreement in 1995, Kenya had undertaken major agricultural sector reforms that mainly involved creating market competition by the removal of controls (price/production) and scaling down government budget allocations to the sector (Nyangito and Nzuma, 2005; Karanja, Arie and Henk, 2003; Nyangito, 2003). During the first two decades after independence, agricultural growth rates averaged over 6 per cent when there were high levels of investment and budgetary support to the agricultural sector (Government of Kenya, 2006a). This trend changed during the structural adjustment reforms when most government support was withdrawn and the performance of the sector declined significantly to less than 2 per cent in the 1980s and 1990s.

Despite prospects for recovery in the recent past, the sector now faces a myriad of constraints and challenges. Among these are spiralling prices of key agricultural inputs such as fertilizer and energy, political conflicts and poor weather conditions. Majority of farmers in various parts of the country cannot afford fertilizer whose prices have risen by more than 200 per cent in the recent past (IFDC, 2008; World Bank, 2008).

Meanwhile, government expenditure on agriculture is minimal and can hardly stimulate desired production and growth rates; in fact, total expenditure on the entire productive sector falls far below the 10 per cent target reflected in the Comprehensive Africa Agricultural Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD). The position, coupled with poor timing of government responses and low private sector investments that would have smoothed supply and price volatility has translated into higher food prices and uncertainty about access to food staples.

With depressed agricultural production and rising food prices, the biggest concern is that the gains made so far in the fight against poverty under the *Economic Recovery Strategy for Wealth and Employment Creation 2003 -2007* will be lost. Already, an estimated 51 per cent of the Kenyan population lacks access to adequate food and even the little available is of poor nutritional value (Ministry of Agriculture, 2007). The incidence and prevalence of food insecurity is more severe in arid and semi-arid lands (ASALs) due to lack of adequate resource endowment, necessitating periodic government intervention in the provision of relief food (Government of Kenya, 2007b).

Yet, sustainable development of the agricultural sector, including effective implementation of identified priority projects in the Vision 2030, require substantial investments and interventions, especially provision of subsidies to farmers. An important question that needs to be addressed revolves around Kenya's commitments on agricultural trade reforms in the WTO and the policy options for enhancing its domestic support to promote sustainable agricultural development and alleviate poverty.

1.2 Study Objectives

The broad objective of this study is to establish the legal and economic implications of increasing domestic agricultural support in Kenya under the WTO agreement. Specific objectives are to:

(i) Assess the domestic support commitments on agriculture under the WTO framework;

(ii) Review the agricultural sector reforms and development strategies since independence;

(iii) Identify the key challenges and constraints facing agricultural reforms; and,

(iv) Suggest policy options for enhancing domestic support within the WTO provisions.

1.3 Motivation

The Kenya government recently embarked on critical agricultural reforms under the Millennium Development Goals (MDGs) and the Vision 2030. Effective implementation of these reforms may require direct and indirect price support to farmers and other industry players and substantial capital injection into the agricultural and rural development sector. Some of these policy measures are under restrictions of the WTO agreement. However, the agreement also provides for flexibilities for all member states to gradually reduce direct price support and shift agricultural policies towards less trade and production distorting options, particularly because the primary purpose of these reforms is to attain a healthy agricultural sector, which is widely believed to support overall economic development in developing countries, which depend heavily on the sector (Allan, 2005).

In the case of Kenya, it is important to consider the fact that about 80 per cent of the population derive their livelihood from agricultural activities; the sector contributes over 26 per cent to GDP while substantially contributing to exports, industrial raw materials and national food security (Government of Kenya, 2008; Ministry of Agriculture, 2007). It is in this regard that this study examines various provisions and the options that the country can exploit to implement her programmes without necessarily contravening the WTO agreement on agriculture.

1.4 Organization of the Study

The rest of the study is organized as follows: literature review and methodology are contained in Section Two, while WTO agriculture domestic support commitments and negotiations are discussed in Section Three. In Section Four, the review of agricultural policy and expenditures in Kenya is provided, while the policy options for domestic support in Kenya and constraints and challenges are discussed in Section Five. The last section contains the conclusion and policy recommendations.

2. Literature Review

This study examines the extent of policy flexibility within the WTO's disciplines on agricultural domestic support, including the following: price support, deficiency payments and subsidies on agriculture output, and the flexibility associated with enforcement/adherence to the rules within which member states are entitled when supporting agricultural development.

2.1 Conceptual Framework

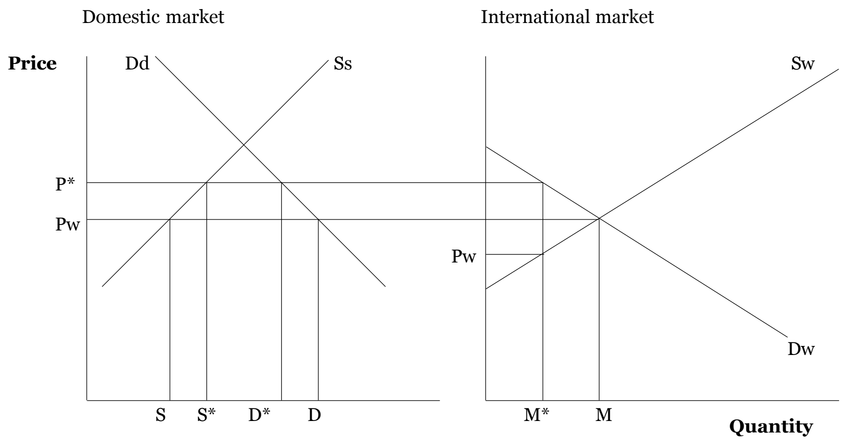
The WTO Agreement on Agriculture categorized 'agricultural domestic support' in two broad areas, namely: (i) support with no or minimal distortive effects on production and trade; and (ii) support with distortive effects. The former constitutes measures that address market failures that lead to under-production and facilitate redistribution of income to improve welfare. The other category has the tendency of distorting trade patterns, thereby displacing efficient producers in other countries. They also lead to erosion of market access commitments by WTO member states, hence are subject to constraints or reduction commitments.

The constraints on agricultural domestic support were primarily designed to restrain the use of price supports, deficiency payments and input subsidies (Blandford and Josling , 2007). For instance, Figures 1 and 2 provide simplified frameworks that illustrate how trade distortion occurs as a result of price and output support. Following Blandford (2001), the left panels of the respective graphs depict supply, demand and parallel quantities and prices in the international market.

In the absence of any price policy, the world and domestic prices are $P_{W.}$ (Figure 2.1). The country produces the quantity denoted by S, consumes D, and imports the difference (D -S), which is equivalent to the quantity M in the panel on the right. The curve labelled S_w depicts supply of the commodity from exporting countries to the country concerned in response to the price at the frontier.

If an administered price of P^* is introduced by the government, domestic producers respond to the higher price by expanding production to S^*, domestic consumers respond by reducing consumption to D^* and imports fall to M^* (D^*-S^*). As a result of the fall in imports, the price at the border (international price) declines to $P_{w.}$ Thus, there is significant

Figure 1: Domestic support and trade distortions: Market price support



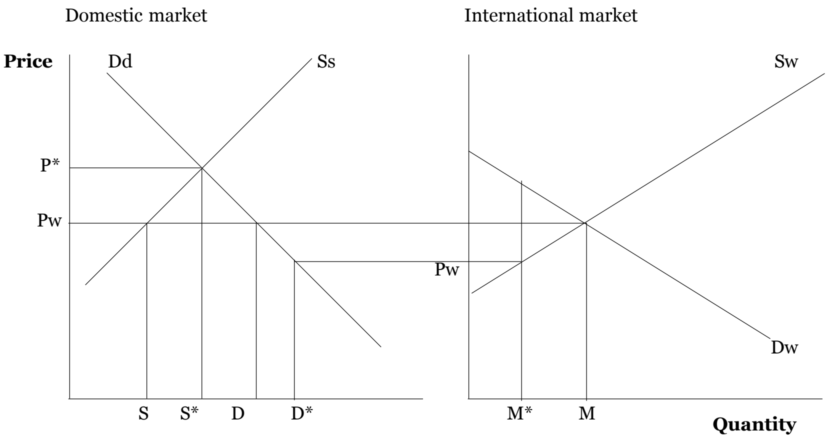
Source: Blandford (2001)

distortion in the country's volume of trade as a result of this domestic policy.

Moreover, because the country is 'a large country' in terms of international trade, distortions are created in other countries whose domestic markets are open to the world market. The fall in volume of imports causes international prices to fall. Exporters receive a lower price; other importers find that they pay lower prices. Consequently, trade distortions are created in the form of lower exports and lower domestic prices in exporting countries, and higher imports and lower domestic prices in importing countries.

Figure 2.2 illustrates what happens if, instead of supporting market prices, the producer price is increased to P^* (output price support). This could be achieved by paying a producer subsidy for each unit of the commodity equal to the difference between world price and P^* ($P^* - P_W$), while allowing consumers to purchase at prevailing world price. In this case, production expands as before to S^*. The increase in domestic production exerts downward pressure on domestic and world market prices by reducing imports, but the fall in price causes domestic consumption to increase. World prices fall, but by less than with equivalent market price support. Other things being equal, the trade-distorting effect of output price support, in terms of trade volume and international prices, is smaller than market price support.

Figure 2.2: Domestic support and trade distortions: Output price support



Source: Blandford (2001)

There is another major difference between these two policy approaches. It is only possible to operate a policy for market price support if lower cost imports are prevented from entering the domestic market. Without this, as in Figure 1, supplies could be obtained internationally at prices less than P^*. A tariff or some other trade policy instrument is required to prevent imports from undermining the domestic support price. If a tariff is used, it will need to be equivalent to $P^* - P_w^*$.

However, the argument for reduction of subsidies weakens when other motivations for domestic support, other than farm income support, are put into consideration. Ideally, such interventions can also be for environmental protection, food security and/or stimulation of economic activities in rural areas, which are important for rural development. Some of these objectives can be met by the use of direct payments and targeted subsidies, but others may have to be achieved by encouraging subsidies in farming activities (Blandford and Josling, 2007). Thus, if there is need to encourage the production of public goods provided by the farm sector, or if their production plays a key role in the development of regional economies, it is admissible that decoupled payments are not the most efficient method of providing public goods; hence, there is an underlying tension between the granting of subsidies for achieving domestic goals and the possible impact this can have on competing producers in other countries.

2.2 Classification of Domestic Measures of Support

Within the WTO agreement, domestic measures of support broadly refer to those agricultural policies or instruments that operate within a country so as to influence farm and rural policies and affect farm incomes, resource use, production and consumption of agricultural products, or environmental impacts of farming (Schnepf, 2005a). The agreement classified all subsidies to farmers according to their impact on agricultural production namely *Green Box, Amber Box* and *Blue Box*. The purpose was to make it possible to focus on trade distorting policies, negotiate the magnitude of reductions and provide an incentive for governments to re-engineer their domestic policies towards non-trade distorting measures (Lars, 2007; Harry and Ingco, 2002; WTO, 2000a; WTO 1995a).

2.2.1 Green Box support

The green-box category comprises of forms of support that are considered to have no or minimally distorting effects on production or trade (Blandford and Josling, 2007; WTO, 1995b). Subsidies have minimal linkages to quantities produced, the inputs used or prices paid enable governments to facilitate or encourage agricultural and rural development.

According to the Agreement on Agriculture (AoA), support for such a subsidy must satisfy two basic criteria: (1) the support in question shall be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers; and (2) the support in question shall not have the effect of providing price support to producers. Further, they must meet the policy-specific criteria and conditions applying to the following categories of government programmes:

1. General services, i.e. research, pest and disease control, training, extension and advisory services, inspection services, infrastructure services, etc;
2. Public stockholding for food security purposes;

3. Domestic food aid;
4. Direct payments to producers;
5. Decoupled income support;
6. Income insurance and income safety-net programmes;
7. Payments for relief from natural disasters;
8. Structural adjustment assistance provided through i) producer retirement programmes, ii) resource retirement programmes, and iii) investment aids;
9. Payments under environmental programmes; and
10. Payments under regional assistance programmes.

Generally, these subsidies are not subject to reductions in the future and do not have expenditure limits. The guidelines that define the eligibility of the programmes under the Green Box are contained in section 2.2.1 and Annex 1 of this paper.

2.2.2 Amber Box support

Amber Box supports are measures that distort agricultural production and market prices and are subject to reductions (WTO, 1995a). These include market price support based on domestic-international price wedges, non-exempt direct payments (on the basis of a price gap or budgetary outlays), and other subsidies not exempt from reduction. Levies or fees imposed on agriculture can be deducted, and support that is not product-specific is added to the total for individual products.

The ceilings for Amber Box expenditures are called the Aggregate Measurement Support (AMS). Price support is measured by multiplying the gap between the applied administered price and a specified fixed external reference price (world market price) by the quantity of production eligible to receive the administered price (WTO, 1995a). Initially, the Amber support was to be reduced by 20 per cent over 6 years with respect to a base period level (1986-90) for developed countries and 13 per cent over 10 years for developing countries with AMS reduction commitments. Least developed countries were not to increase support beyond the base period levels (Lars, 2007; Harry *et al*, 2003; FAO, 2000; WTO, 2000a).

2.2.3 Blue Box support

Blue Box support measures are those that involve direct payments under production limiting programmes if the payments are based on fixed area, yields or number of livestock, or on a maximum of 85 per cent of base level of production (WTO, 1995a). They also include domestic support provided to producers to encourage diversification away from illicit narcotic crops. The measures can be exempted from reduction commitments if such payments are made on fixed areas and yield or fixed number of livestock, and thus excluded from total AMS.

The reason for the exemptions was to make it easier for the European Union and the United States to meet their respective reduction commitments. The EU used the Blue Box measures for its ongoing compensatory payments under the 1992 reform of the Common Agricultural Policy (CAP) reforms, while the US used them for its 1995 deficiency payments. In addition, Japan placed its rice policies into the Blue Box in 1998, replacing huge levels of rice support formerly subject to reduction under the Amber Box (Butault and Bureau, 2006; Abler and Blandford, 2005; Betina *et al*, 2003; UNCTAD, 2003).

An important aspect of Blue Box is its coverage under the due restraint provision of the AoA (Article 13). This provision originally specified that payments made under Blue Box were exempt from countervailing duties until 2003, unless a determination of injury or threat was proved. The expiry date was a major concern to EU, which made a proposal for the stay of the provisions such as the Green Box (WTO, 2000b).

2.2.4 Other special provisions

(a) *De minimis* exemptions. The *de minimis* exemptions allow support for a particular product to be excluded from calculation of a country's AMS if that support is less than 5 per cent of its total value of production for developed countries or 10 per cent for developing countries (WTO, 1995a). For countries that have no AMS reduction commitment in their schedules, domestic support is limited to their *de minimis* values on both a product-specific and total basis for any given year (Article 7.2 (b)). The total AMS and *de minimis* allowances can be interpreted as the total level of trade distorting support each country is permitted under the WTO agreement.

(b) *The Due Restraint clause (Peace Clause)*. The "Due Restraint", which is contained in article 13 of the AoA, provided for use of subsidies under the Green and Blue Box support measures without being challenged by other member states. In other words, it prevented WTO member states from taking action against other member states for using subsidies, under the Agreement on Subsidies and Countervailing Measures (SCM). It was also an incentive for countries to shift domestic policy instruments toward the Green and Blue Box categories in order to eliminate the threat of countervailing duties and other actions (Harry *et al*, 2003). The clause expired in 2003 and its extension or modification is listed among issues to be discussed in the on-going negotiations (WTO, 2007).

(c) *Special and differential treatment*. During the Uruguay Round, member states of the WTO were classified into three broad categories: developed, developing and least developed. The classifications were used to define different levels of commitments and pace of agricultural policy reform in each country or group. This provision allows greater flexibility so that developing countries can support and protect their agricultural and rural development and ensure the livelihood of their large agrarian populations whose farming is quite different from scale and methods in developing countries (WTO, 2004b; FAO, 2000). Examples include the variation in *de minimis* exemption provisions and the reduction commitments by developed and developing countries in the WTO agreement.

2.3 Empirical Issues and Domestic Support Commitments

The link between various types of domestic policy measures under the AoA and their impact on agricultural production and trade is not very clear. Contrary to the agreements' classification, it is practically impossible to increase farmers' incomes through Green Box or Blue Box supports without distorting or influencing production and consumption. Abler and Blandford (2005) argue that the magnitude of the impact of a given payment scheme is difficult to determine a priori since it depends partly on the design of the scheme and, most importantly, on the response of producers to it.

Floyd (1965) carried out the first assessment of the impact of different methods of agricultural support on prices and factor returns in agriculture. He compared the impact of price supports with output restrictions and mandatory land retirement. In his assessment, he does not consider the possibility of producer payments based on land use. However, this type of support has become increasingly common, especially in the developed world as earlier indicated. Besides, Hertel (1989) developed a series of propositions relating to the impact of a wider range of support measures on production, net exports, employment, land rents and farm income.

From Hertel's study, some key points arise: First, subsidies on variable inputs that substitute for fixed factors in agriculture (e.g. land) have a greater impact on output and, hence, trade than do equal cost output subsidies. Such variable input subsidies also moderate the share of producer support that accrues to land and other fixed factors. On another front, subsidies to land, such as the per hectare payments currently made in the EU, have a more modest effect on output, while leading to higher land rents than under an equal cost output subsidy. Finally, when compared to an output subsidy of equal cost, export subsidies have a larger impact on exports, agricultural production, employment, and land rents, provided the elasticity of export demand exceeds the domestic demand elasticity.

Other studies have mainly been computational and looked at the impact of agricultural trade reforms on developed and developing countries. For instance, the study by OECD (2002) examined the impact of reductions in market price support and cuts in both market price and direct payments to producers. The study does not only look at the broad group of developing countries, but it also failed to consider more elaborate reforms in which the mix of measures is changed in an attempt to maintain farm incomes.

In contrast, Frandsen, *et al* (2003) examined the impact of further decoupling of domestic support in the EU. Their emphasis was on the budgetary and macroeconomic effects of these policy reforms among OECD countries. They argued that further decoupling of EU agricultural policies would reduce budgetary exposure in the EU and bring it into compliance with potentially stricter WTO disciplines on domestic support. They also found substantial changes in world prices—particularly for meat products, although they did not explicitly examine the issue of overall developing country welfare, and they restricted themselves to EU reforms.

Using the Global Trade Analysis Project (GTAP) model, another OECD study (Betina *et al*, 2003) argued that a shift from market price support to land-based payments could generate a 'win-win' outcome whereby farm incomes are maintained and world price distortions are reduced. The study by Rae and Strutt (2003) conclude from their GTAP-based comparison between border measures and domestic support that improved market access generates far greater trade and welfare gains than domestic support cuts. They propose that trade negotiators should, therefore, focus squarely on cuts on border measures before turning attention to domestic support.

A review of the implementation of the AoA showed that domestic support commitments have not had a major impact on the policies of major trading partners (Josling and Tangermann, 1999). The US and the EU have, in particular, successfully sheltered direct payments from challenge by means of the *Blue Box* and *Green Box*. These countries also made relatively higher AMS binding commitments, which gave them greater flexibilities; for instance, the WTO data for 2001/02, which was the last notification by the EU to the WTO on October 2004, indicate that total EU support to agriculture amounted to some • 83.7 billion, including • 23.7 billion in Blue Box expenditures and • 20.7 billion in Green Box expenditure. Thus, the AMS corresponding to Amber Box payments amounted to • 39.3 billion (Butault and Bureau, 2006).

Considering that the EU AMS binding is • 67.2 billion, this implied that only 58 per cent of maximum allowed was actually used. On another side, most developing countries, along with Australia and New Zealand, did not declare price-related (A*mber box*) support in the WTO schedule (WTO, 1995b). Although they have a wide variety of programmes within the scope of the *Green Box*, these countries may find it difficult to implement such policies in the future if they wished to reverse their policies (Josling and Tangermann, 1999).

In Kenya, previous studies reviewed the impact of the components of the AoA on the agricultural sector—that is, the market access, domestic support and export subsidy issues. The study by Nyangito (2003) showed mixed results of implementation of the AoA on production and trade. This was particularly attributed to the fact that Kenya had already started liberalizing her economy by the time the agreement came into force; for instance, she had substantially reduced spending on agriculture before the commitments under the AoA came into force. Thus, Kenya does not apply many measures to which she would be entitled under the special and differential treatment, such as marketing promotions service, direct payments, producer resource retirement schemes and investment aids. The study also identified main issues for future negotiations on domestic support measures for Kenya. These were:

- Establishing a development box or increasing flexibility within the Green Box to apply measures to encourage production for domestic consumption;
- Increasing transparency by developed countries on what is included in the Green Box, and clearly defining the requirement that Green Box measures should be 'non-trade distorting';
- Establishing tight rules and disciplines for Green Box measures used by developed countries to limit their distorting effect on agriculture trade;
- Granting developing countries special and differential treatment in reporting their base total aggregate measurement of support;
- Granting special and differential treatment for net food importing developing countries to raise the *de minimis* level of domestic support from 10 per cent to 20 per cent;
- Receiving further commitments by the developed countries to reduce aggregate measurement of support ceilings for each product or product groups; and
- Eliminating Amber Box support measures, because they distort trade and development and affect developing countries most.

The study argued that Kenya implemented the Agreement on Agriculture easily because it conformed to policy reforms already initiated and that further support to agriculture is constrained to the 10 per cent of the aggregate value of a specific product allowable for developing countries. At the same time, however, it alluded to the fact that agriculture development expenditures had been dwindling over the years and that there are options for domestic support measures under the Green Box provisions.

While these arguments may be right, the proposal for establishment of a *Development Box* is defensive and will only lead to granting of further concessions to developed countries, which is not necessary. This is because the country does not even utilize the existing policy flexibilities, and developed countries know additional flexibilities will remain un-utilized even if granted.

2.4 Overview of Methodology

2.4.1 Data type and sources

Both qualitative and quantitative secondary data were used in the study. The data was obtained from various sources, mainly from the Ministry of Trade and Industry, Ministry of Agriculture, Ministry of Finance, Ministry of Planning and National Development, and the internet. The data on agricultural expenditures was obtained from the Economic Review for Agriculture 2007, various Economic Surveys and Statistical Abstracts.

Other key documents included WTO member states notifications on domestic support, the WTO Agreement on Agriculture, various issues of the draft modalities for agriculture negotiations, the Strategy for Revitalizing Agriculture 2000-2014, the EAC Treaty, and the COMESA Treaty. The materials and documents consulted are listed in the reference section.

2.4.2 Data analysis

Quantitative data was analyzed using descriptive statistics. An estimation of potential support measures was done in view of trends in agriculture development expenditures and output values taking into account the provisions contained in part IV (articles 6 and 7) of the Agreement on Agriculture. On the other hand, a thematic review of qualitative data was carried out and segregated into various categories of domestic support measures.

3. Domestic Support Commitments and Negotiations

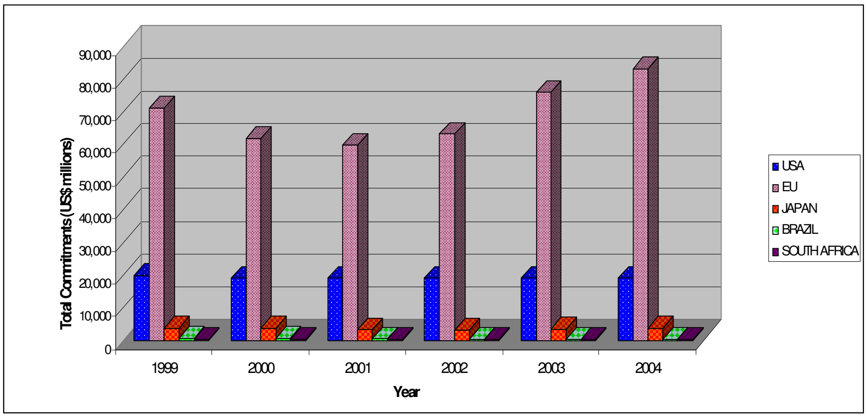
3.1 Domestic Support Commitments

All countries that signed the URAA agreed to limit Amber Box payments to a level at or below the AMS commitments and subsequently reduce such support on agreed terms depending on their level of development (Konandreas and Greenfield, 1996). During the Round, 35 countries made AMS reduction commitments (see Annex III). For developed member countries, the AMS were to be reduced from a 1986-1988 base period average by 20 per cent in six equal annual instalments during the period 1995-2000. On the other hand, developing countries agreed to a 13 per cent reduction from their 1986-1988 base AMS over a 10-year period, while least developed countries agreed not to increase support beyond the base period level (WTO, 1995b).

Each member country is required to routinely submit an annual notification of subsidy outlays made under the scheduled reduction commitments on domestic support. However, least developed countries can notify every other year. Countries without reduction commitments and support in exempt categories must notify in order to show that any support falls within the *de minimis* levels. According to the WTO secretariat, notifications are often made with considerable delays and most countries do not submit notifications as required.

The total AMS commitments for the years 1999 to 2004 for selected countries are shown in Figure 3.1. The figure indicates that the 15 EU member states made the biggest AMS commitments followed by the United States and Japan. Majority of developing countries did not report commitments. However, those that reported, such as Brazil, India and South Africa had low levels of commitments compared to the developed countries. This is partly attributed to the fact that most of the countries do not have the capacity to afford expensive agriculture programmes. According to the WTO secretariat, many countries have responded to the guidelines by restructuring domestic agricultural policies to suit the URAA requirements, notably the agricultural reforms being implemented in the Unites States, European Union and the Asian countries.

Figure 3.1: Total aggregate measurement of support (AMS) commitments



Source: USDA (2006)

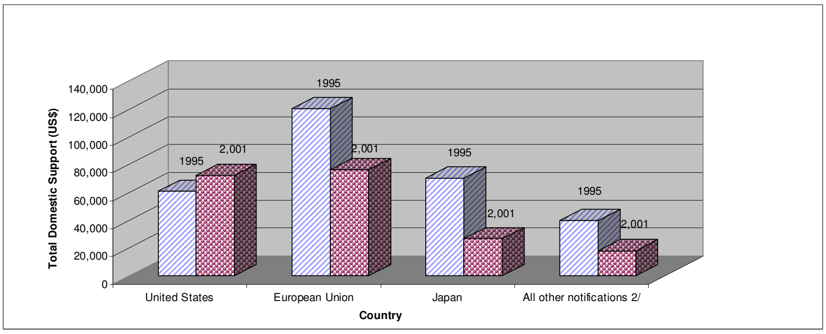
3.2 Level of Domestic Support by WTO member states

During the URAA, only 34 member states had a base-period AMS values exceeding the *de minimis* levels and thus faced the prospect of cutting domestic support programmes (Schnepf, 2005a; 2005b; WTO 2004b). The largest amount of domestic support is provided by the European Union followed by the USA and Japan, and then the rest of the world, which comprises Latin America, Asia and Africa as indicated in Figure 3.2 and Table 3.1.

Of the 'Rest of the World' category, African countries provide the least domestic support due to resource constraints. According to WTO secretariat, only four African countries, namely South Africa (US$ 71.7 million), Egypt (US$ 75.8 million), Kenya (US$ 53.2 million) and Zambia (US$ 112.1 million) declared provision of limited domestic support in 1996. These statistics clearly show that domestic support is highly concentrated in a few countries (i.e., the European Union, the United States and Japan, which account for about 90 per cent of total domestic support in the OECD area as a whole).

A notable development is that most countries have been able to reduce their AMS level of support to meet their URAA commitments by shifting domestic support from non-exempt to exempt categories. This is the case for all the major providers of domestic support, apart from developing countries, whose Green and Blue Box supports have been declining over the years.

Figure 3.2: Agriculture domestic support during 1995-2001 (US$ million)



Source: USDA (2006)

In terms of the category of measures, the trend of support varies across countries and regions. Table 1 below presents the level of domestic support in the US, EU, Japan and all other notifications to the WTO secretariat during the period 1995–2001 by categories. The table shows that in the United States, Green Box support represents most of the support to agriculture. About 60 per cent of this support is in domestic food aid.

The US eliminated its Blue Box support with the 1996 Farm Bill. In the late 1990s, the US expanded its Amber Box support, as some existing and some new programmes provided support to counter the low prices experienced during the time. The latest US farm legislation maintains most of the programmes, including decoupled income support payments (Blandford and Josling, 2007). It has also used the *de minimis* rules effectively to meet its limits and would be seriously constrained by a phase-out of the exemptions.

The EU reports significant support for all the three boxes. However, there is declining trend in the Amber and Blue Box support. The latter consists of compensatory payments for grains and oilseeds and head age payments for livestock, which have production limits embedded in them.

Recent comprehensive reforms under the Common Agricultural Practices (CAP) are, however, structured to transfer much of the EU's Blue and Amber Box supports to the Green box as reflected in Table 3.1. The incorporation of many of the EU commodity-specific compensatory and head age payments into a single farm payment that is tied to a payment entitlement will transfer a great deal of EU agricultural support to the Green Box as decoupled income support payments.

Table 3.1: Total support between 1995 and 2001 (US$ million)

Country	Years	Amber Box (AMS)	Amber *de minimis*	Blue Box	Green Box	Total
USA	1995	6,214 (23,083)	1,483	7,030	46,041	60,769
	1996	5,898 (22,287)	1,155	0	51,825	58,877
	1997	6,238 (21,491)	804	0	51,252	58,294
	1998	10,392 (20,695)	4,762	0	49,820	64,974
	1999	16,862 (19,899)	7,435	0	49,749	74,046
	2000	16,803 (19,103)	7,341	0	50,057	74,200
	2001	4,413 (19,103)	7,043	0	50,672	72,128
EU	1995	66,524	1,483	7,030	46,041	60,769
	1996	64,815	1,155	0	51,825	58,877
	1997	55,896	804	0	51,252	58,294
	1998	52,394	4,762	0	49,820	64,974
	1999	49,933	7,435	0	49,749	74,046
	2000	39,758	7,341	0	50,057	74,200
	2001	35,678	7,043	0	50,672	72,128
Japan	1995	36,767	0	0	33,219	69,986
	1996	29,765	333	0	25,192	55,291
	1997	25,851	294	0	21,616	47,762
	1998	5,911	582	387	23,150	30,030
	1999	6,689	292	829	24,022	31,832
	2000	6,461	0	845	23,367	30,673
	2001	5,338	0	729	20,393	26,460
Notifications from the Rest of World	1995	12,064	1,732	1,156	24,779	39,731
	1996	10,402	731	1,119	19,198	31,449
	1997	8,948	914	1,019	23,430	34,311
	1998	10,548	2,116	1,039	17,493	31,197
	1999	9,567	2,301	967	15,745	28,580
	2000	10,648	3,057	895	15,227	29,826
	2001	6,528	1,261	869	9,027	17,684

Source: USDA (2006). NB: Brackets indicate AMS ceilings

Japan also utilizes support in all the three boxes. Over half of its Green Box support is targeted at agricultural support and infrastructure. A shift in the Japanese rice programme moved some agricultural support from the Amber Box to the Blue Box. The shift has resulted in a significant decrease in AMS figures well below the limits. The notifications from the rest of the world show that total support is generally lower than the US, EU and Japan. This suggests that only the wealthier countries have the capacity to provide and sustain agriculture support, but even these countries have cut back such support.

Finally, the rate of notifications by African countries is substantially lower compared to the rest of the world averages as can be seen in Table 3.2. For instance, South Africa, which has a US$ 310 million limit on total AMS, has reduced total support to US$ 71.7 million (WTO notifications 1998-2004). Other African countries have also reduced their Green Box expenditures, a measure not required under the AoA. In addition, countries such as Burundi, Madagascar and Uganda reported no domestic support measures.

Table 3.2: WTO notifications by African countries (US$ million)

Country	Period/Year	AMS	Green Box	S & D
Burundi	1995-2004	None	None	None
Egypt	1995 1996 1997 1998	None	68.3 75.8 38.8 1.3	7.1 2.4 2.4 2.4
Kenya	1996 1997	None None	53 65	None None
Madagascar	1995-1999	None	None	None
South Africa	1998 1999 2000 2001 2002 2003 2004	17.4 126.38 61.49 Nil Nil Nil Nil	- 41.4 38.1 33.3 35.6 56.6 71.7	1,156 1,119 1,019 1,039 967 895 869
Zambia	1996 1998	12,064 10,402	1,732 731	1,156 1,119
Uganda	1995-2006	None	None	None

Source: WTO Notifications, 1995-2004

However, a few African countries provide agriculture domestic support through the Green Box programmes, notably Egypt and Zambia. The two have substantially improved their agricultural productivity and food security situations. Initial notifications to the WTO by Kenya on Green Box measures in the past indicate that the total outlay was about US$ 53 million in 1996 and US$ 65 million in 1997. According to the 1997 notification, about 42 per cent of the total outlay was on agricultural education and extension, 40 per cent livestock development and veterinary services and 10 per cent on public stockholding for food security purposes (WTO, 2000a).

3.3 Implementation of the URAA and Status of Negotiations on Agriculture

The URAA laid the foundations for reducing international price-depressing assistance to agriculture, particularly by developed countries (Hoekman and Anderson, 2000). It also spelt out the framework for continued negotiations and progressive reductions in support, resulting in fundamental reforms. As a first step, the agreement recommended the reduction of the aggregate level of domestic support (AMS), the exemption of Green Box and Blue Box supports and in principle provided for special and differential treatment for developing countries as an integral element of the negotiations. A critical review of the implementation of the agreement showed that the degree of reduction of market distorting subsidies was relatively low during the period 1995-2001. Further evidence indicates that there was re-instrumentation of domestic policies to continue the high domestic support and insulation of domestic producers from changes in market prices (Merlinda, 2002). This was partly attributed to the political sensitivity of agricultural policies in highly protecting countries among the WTO member states.

At the end of the Uruguay Round, it was agreed that agricultural negotiations would be reopened by the end of 1999 to continue the process of farm reform. Thus, building on the work carried out during the Round, the Doha Ministerial Declaration (2001) set a new mandate with domestic support, market access and export competition being at the epicentre (Anania and Bureau, 2005; WTO, 2004b). A number of proposals for revision and/or repackaging of the disciplines to accommodate the diverse opinions were proposed, key among which were calls for 'substantial reductions in trade-distorting domestic support', including the Amber Box, the *de minimis* support and discipline in the Blue Box (WTO, 2001a).

Continued negotiations resulted in the July 2004 Framework Agreement (FA), which called for substantial reduction in the overall level of trade-distorting support in developed countries. It also specified that higher levels of permitted trade-distorting support would be subject to deeper cuts. As part of the overall reduction commitment, the FA recommended substantial reductions in the total AMS and permitted *de minimis* levels, and a capping of Blue Box support at 5 per cent of the average value of total agricultural production for an historical period. It also pre-supposed Special and Differential treatment for developing countries in the form of longer implementation periods, lower reduction coefficients for all types of trade-distorting domestic support, and exemption from the discipline of payments designed to promote food security and agricultural and rural development (the Development Box).

During the Hong Kong Ministerial Declaration adopted on 22 December 2005, a number of countries, or groups of countries, including the EU and USA, made some proposals aimed at reaching the objectives set out in the July 2004 Framework Agreement. The G20 and the USA made proposals on a range of restrictions related to AMS reductions, while the EU and the G10 appear to favour a more flexible approach to the measures. In addition, there was consensus among member states on the need for review of the Green Box with a view to either creating greater flexibility or accommodating more user-friendly programmes for developing countries.

Several proposals have been made on the mechanisms for reduction of agriculture domestic support. Effective reductions in developed countries' subsidies and stricter disciplines to prevent members from circumventing commitments remain the most important domestic support issues in the Doha Round for developing countries (FAO, 2007). They argue that reforms in the developed world subsidies will be more development friendlier than expanding developing country entitlements to provide trade-distorting domestic support. The various proposals put forward by various groupings are summarized in Table 3.3.

However, several concerns have so far been raised about the effectiveness of the URAA. First is in dealing with impacts of substantially large amounts of Green and Blue Box subsidies otherwise exempted from reductions. During implementation of the agreement

Table 3.3: Proposals for ongoing negotiations

Country/region	Amber Box	Blue Box	Green Box	Development Box
EU	1) Further reduction in the Total AMS starting from the final bound commitment level 2) Further strengthening of the rules concerning non-product specific product support; and 3) Reduction of the *de minimis* level for developed countries 4) Modification to allow for specific discipline to be applied to subsidies	- Supports maintenance of measures	- Favours revision to accommodate greater flexibility to allow more scope for payments linked to animal welfare and ensure that environmental payments, food security and rural development programmes are included	Supports - promotion of measures to promote rural development and food security in developing countries - revision of de minimis clause for developing countries to address development concerns
USA	- Establishment of non-exempt support category that should be subject to reduction commitment		Retention of exempt support category with minimal distortions	

Japan	Proposes base level of Total AMS be equivalent to the final commitment in 2000	Supports maintenance of Blue Box measures	- Improvement of decoupled income support	
ASEAN Group	- Reduction and eventual elimination of Aggregate Measurement of Support (AMS)	Be subjected to substantial reduction commitment and eventual elimination	- Measures must have minimal production and trade distortions	- Maintains that measures that are an integral part of the development, diversification and food security programmes of developing countries must remain exempt from reduction commitments - Supports greater flexibility in the application of *de minimis* on an aggregate rather than product basis
CAIRNS Group*	- Reduction on a formula based approach - 50% initial reduction by developed countries followed by equal reductions in subsequent years - Retention of existing *de minimis* provisions in article 6.4(b) of the Agreement on Agriculture for developing countries	Similar position as Amber Box proposals	- Revision of Annex 2 to ensure the Green Box criteria are clear and precise and does not distort production and trade (i.e. particularly moving safetynet, investment and some forms of direct payments to the Amber Box)	- Supports enhanced Green Box provisions for developing countries

* CAIRNS Group includes Argentina, Australia, Bolivia, Brazil, Chile, Colombia, Costa Rica, Guatemala, Indonesia, Malaysia, New Zealand, Paraguay, Philippines, South Africa, Thailand, Uruguay.

G20	Substantial reduction of final bound AMS using a tiered approach in three bands, i.e. countries with AMS totalling over US$ 25 billion would have to cut by 80%, those with AMS level of US$ 15-25 billion would be cut by 70	- Tiered formula reductions for developed countries - Developing countries without AMS entitlements be exempt from making an overall reduction	- Review and clarification of Green Box criteria	
Developing countries	Complete elimination of trade-distorting subsidies	- Tiered formula reductions for developed countries - Developing countries without AMS entitlements be exempt from making an overall reduction	- Further clarification about the definition in order to ensure minimal or no trade-distorting production effects	- Led by Kenya suggests consolidation, strengthening and operationalization of SDT for developing countries

Source: WTO (2000)

(1995-2001), subsidies, quota arrangements and high agriculture protection continued unabated and, in some cases, increased (Merlinda, 2002). Trends in agriculture expenditures in many developed countries suggest that they are able to circumvent the rules by shifting support programmes from the Amber Box to either the Green Box or Blue Box to avoid anticipated challenges from trading partners. In addition, the specifically negotiated 'exemption clauses', including the *de minimis* provisions, have been argued as providing a means for delivering income support to farmers in a different form (Allan, 2006).

Second, the relevance of the guidelines to those countries that cannot afford to grant support or utilize the policy space provided in the guidelines has also been a subject of debate in the ongoing round of negotiations. For instance, developing and least developed countries, who represent three-quarters of the WTO membership, account for only a minor share of global agricultural domestic support (FAO, 2007). Majority of these countries can barely afford such expensive measures given the competing need for resources, or they ceased granting non-exempt supports altogether during the structural adjustment period.

Further, contrary to the assumptions that increasing market-access of agriculture products in developed country markets will address development concerns of developing countries, recent studies show that the returns from exporting such products are by and large constrained by the highly concentrated and imperfectly competitive nature of the food sector in those countries (Sexton *et al*, 2007). Yet, not many studies have been done to investigate the influence of the agreement on domestic agriculture reforms in developing countries. In Kenya, for instance, the major studies mainly focus on the issues revolving around the ongoing and future negotiations. This may partly be attributed to the fact that Kenya has not made any commitments on domestic support and all expenditures fall under the Green Box category. Besides, she had substantially reduced spending on agriculture prior to the URAA and does not provide sufficient resources to the sector despite the exemption clauses to which she is entitled (e.g., the *de minimis* and special and differential treatment).

There are a number of outstanding issues in the ongoing negotiations, which revolve around areas perceived to be the most ineffective in the current agreement. These include the following: i) non-trade concerns; ii) reductions in the aggregate measurement of support, including definition and criteria for exempt policies, consideration of inflation and exchange rate changes, the role of *de minimis* provisions, and total versus product-specific AMS commitments; iii) the role of the Blue Box; iv) limits on Green Box subsidies; v) the role of the peace clause; and vi) the role of special and differential treatment.

3.3.1 Non-trade concerns

One of the challenges in the ongoing negotiations involves identification of ways to reduce trade-distorting domestic support while providing countries with the flexibility to achieve societal development goals. This is primarily due to the anticipated reduction of domestic support allowed within the Amber and Blue Boxes and review of composition of Green Box support measures are reviewed to minimise their direct impacts on production and trade. Some of the important societal objectives include such areas as environmental standards, rural development, food security and poverty alleviation.

3.3.2 Reductions in the aggregate measurement of support

In the URAA, members undertook not to provide export subsidies except in that Members' schedule, and to gradually reduce overall levels of domestic support measured by the total Aggregate Measure of Support (AMS). However, the Green and Blue Box measures are exempt and may escape challenges under the 'peace clause', so long as they are within scheduled commitments. Besides, while there is consensus about the reduction commitments of Amber Box support, the treatment of the Green and Blue Box supports has remained a political and legal issue and subject to different interpretations (Lars, 2007; FAO, 2007; WTO, 2007). On Green Box supports, several countries have reservations about the maintenance of flexibilities of these programmes, arguing that they could in fact distort trade depending on how they are implemented. Others are of the opinion that stiffer rules would disrupt reform processes in their countries and, therefore, any shift in support to the Green Box should be welcome. Some countries call for the phasing out of the Blue Box over an agreed period while others argue it distorts trade less than the Amber Box and is necessary to allow reform to take place in their countries.

The challenge in the ongoing round is how much further to reduce these levels given the large variations in the levels of support and commitments by member states. Besides, agreement on the method of reductions have varied implications; i.e. reductions *by* a certain amount or *to* a certain amount. Reducing support by a certain amount would provide advantages to those countries with currently high levels of support. Reducing support to a certain amount would result in a more level playing field among countries. Also related to this is treatment or correction for inflation and fluctuation of exchange rates when calculating and evaluating AMS.

In addition, the current *de minimis* rules specify the levels of support for developed and developing countries that are exempt from commitment. There are proposals for increment of *de minimis* provisions for developing countries, but reduction of the same for developed countries. The challenge is the establishment of threshold levels allowable for both developed and developing countries. These factors create distortions and a clear criteria need to be developed to take them into account.

A number of countries have since the URAA, shifted significant portions of their domestic support from non-exempt categories into the Green and Blue Boxes, which are currently exempt from commitment. One issue related to this is whether all domestic policies currently categorised as exempt truly fit the criteria of the current agreement. There may thus be need to seek more specific policy criteria to determine the status of domestic support; for instance, the issue of decoupled payments must be addressed and appropriate criteria developed.

3.3.3 Role of the Blue Box

The Blue Box exemption was originally developed as transitional mechanisms to encourage countries to move from the most trade-distorting to less distorting measures. The measures are mainly relevant for the EU, US and Japan to meet their respective reduction commitments. The EU used the Blue Box for its ongoing compensatory payments under the 1992 reform of the CAP, while the US used it for its 1995 deficiency payments. Japan placed its rice policies into the Blue Box in 1998, replacing huge levels of rice support formerly subject to reduction in the Amber Box. Given the scenarios, there are arguments that the Blue Box support was transitional and should be phased out, thus encouraging countries to adopt measures that fit the Green Box criteria.

In addition, few countries use Blue Box support measures; only seven have so far used it, while five are still using (UNCTAD, 2003). This is because the measures that qualify must be direct payments, which are rather burdensome for government budgets. Besides, they must also be under 'production-limiting programmes' and only countries facing a production surplus will be interested. The limited application of the measures and the fact that they also have some trade-distorting impacts has raised concerns about the maintenance of the Blue Box measures.

3.3.4 Limits on Green Box subsidies

The URAA placed no limits on the level of support or the total amount of expenditures that could be provided within the Green Box framework. The two basic criteria for the Green Box support are that the support must be government-funded and it must not have the effect of providing price support to producers. A number of policy-specific criteria and conditions also apply. However, the less than precise nature of the criteria has left room for interpretation of policies allowed within the Green Box.

The G-33 and G-20 have made specific proposals to tighten the criteria for what can be included in the Green Box. However, the US proposal calls for the Green Box to be left unchanged and rules out possibility of a cap on Green Box spending. It is anticipated that the US and EU will still move more spending into the Green Box, hence the mounting concerns and call for limits in this category (WTO, 2007). Given that most, if not all, the support measures and subsidies were within exempted categories or the *de minimis* levels, Kenya presented a schedule on domestic support measures under the Green Box only.

3.3.5 Role of the peace clause

The peace clause provides incentives for countries to shift domestic policy instruments towards the Green Box category to eliminate the threat of countervailing duties and other actions. The clause was due to expire in 2003 when the Doha Round was initially planned for conclusion. However, with delays encountered, developed countries maintain that its expiry was pegged on conclusion of the round and hence it still stands, while developing countries are of the view that the expiry date passed and there should be subsequent review of its application.

In the above respect, several questions arise regarding the application of the peace clause: What form should the clause take to encourage the greatest shift towards qualifying support? Should it be of limited duration or should it be permanent? Should it cover only Green Box policies or include other support? If the clause were allowed to expire, would it eliminate much of the incentive to shift from non-qualifying to qualifying support categories? The outcome concerning the peace clause and its optimal form depends on changes that take place with respect to the various categories of support.

3.3.6 Role of special and differential treatment

Developing countries have agreed on a defensive interest in retaining the maximum policy space to take account of particular vulnerabilities, particularly to address food security, livelihood security and rural development. This explains their emphasis on special and differential treatment and proposals for a Development Box (Mathews, 2005). These include a smaller commitment reduction requirement, a higher *de minimis* level, and a longer implementation period.

The continuation of special and differential treatment seems likely. In addition to determining the type of special and differential treatment that will be granted, the next Round should develop specific criteria as to which members qualify as developing countries. However, some member states, mainly Latin American countries, have raised concern that continued protection of agriculture sectors may hamper south-south trade.

4. Agriculture Policy and Expenditure in Kenya

4.1 Agricultural Policy Reforms

Agricultural development strategy in Kenya has been based on the promotion of smallholder farming (Karanja *et al*, 2003). This has mainly been advocated to enhance rural development and also improve the incomes and livelihood of the rural populations. From 1963 to 1980, agricultural policy was characterized by government controls in production and marketing for most commodities through cooperative societies, state-run farmer organizations and parastatals (Nyangito, 2003). The interventions, which included market regulations and pricing of agricultural commodities and inputs, were mainly done through marketing boards, cooperative societies and state-run farmer organizations. In this regard, producers of coffee, tea and pyrethrum received world prices less the processing and marketing costs of respective marketing boards. On another front, the prices for food crops and livestock products were strictly controlled (Nyangito and Nzuma, 2005; Nyangito, 2003).

Liberalization of the agricultural sector, in particular the marketing and removal of price controls, began in 1980. The reforms were aimed at encouraging greater involvement of the the private sector in production, marketing, processing and trading in agricultural commodities. This involved restructuring marketing boards to eliminate their monopoly rights in pricing and marketing of products and the realignment of export prices and increased production of import-competing crops. However, implementation of these reforms was hindered by political and economic factors (Karanja *et al*, 2003).

Consistent implementation of agricultural reforms in Kenya began in 1991 under the auspices of Structural Adjustment Programmes (SAPs). Among the policy interventions were reductions in agricultural share of total government budgets from an average of 10 per cent in the 1980s to 2 per cent in the 1990s (Government of Kenya, 2004). In 1992, price controls for all food items, except maize and agricultural inputs, were abolished. Eventually, the private sector was allowed to directly purchase maize from farmers, while the role of the National Cereals and Produce Board (NCPB) was to manage the strategic stocks and to be the buyer of last resort. At the same time, the selling of coffee and tea at the central auctions began in 1992. However, these reforms also yielded mixed results, with marked instability of market prices for major commodities (Ingco *et al*, 2003).

In 1994, the government through the *Sessional Paper No. 1 of 1994 on Recovery and Sustainable Development to the Year 2010* undertook to increase resource allocation to support key farm services as a means of enhancing sustainable recovery of the agricultural sector. Among the priority farm services identified included infrastructure, research and extension services, pest and disease control programmes and physical agricultural inputs.

In 2002, reform measures in agriculture were enshrined in the *Economic Recovery Strategy for Wealth and Employment Creation 2003-2007*. The focus was on agricultural policies, food security, access to inputs and commodity markets, industrialization, micro and small enterprises and regional and global markets. These priority reforms are being addressed through the *Strategy for Revitalizing Agriculture 2004–2014* as shown in Table 4.1. The overriding goal of the SRA is to achieve a progressive reduction in unemployment and poverty within a framework of improved agriculture productivity and farm incomes while conserving the land resource base and the environment.

The identified priority areas that require funding include:

(a) Institutional reforms and facilitation of entry of other players, i.e. retrenchment, consultations and liquidation of accumulated liabilities;

(b) Capacity building and training of stakeholders to take up roles previously performed by the government, such as input supply, research, extension, marketing and regulations;

(c) Providing investment capital for the development of support infrastructure such as roads, power, water supply and communications; and

(d) Provision of seed funds to facilitate the private sector to take up and finance the delivery of commercial and related services.

The SRA estimates that the country requires about Ksh 13.5 billion annually for the first four (4) years to effectively implement priority SRA programmes (i.e. national extension fund), credit seed fund, research and rural development fund. The funds are expected to be

Table 4.1: Annual estimates for SRA (2004-2014)

Programme	Annual cost (Ksh billions)
1. National Extension Fund	3.5
2. Credit Seed Fund	3.5
3. National Research Fund	1.5
4. Rural Development Fund	5.0
Total	**13.5**

Source: Ministry of Agriculture (2004)

shared between the government, development partners and the private sector.

Similarly, Kenya has been developing strategies to achieve the MDGs since 2004 when MDG-based planning was launched. In order to fast-track the achievement of the MDGs, a comprehensive needs assessment study was undertaken in 2005. The study was also to facilitate putting the country on the path of MDG-based log-term planning. The subsequent report of 2006 on Requirements for Goal One identified the requisite resources for scaling-up interventions through 2015. It also made projections of annual financial requirements to agricultural and related activities in three major priority areas, namely: 1) agricultural productivity; 2) research and extension services; and 3) rural income generation.

According to the government's financing strategy, the country requires about Ksh 64.8 billion annually (Table 4.2) to be able to meet the MDG goals for agriculture and agriculture-related interventions (Government of Kenya, 2006a). Unlike the previous case, agriculture productivity (28.2%), rural income generation (31.3%) and sustainable water and sanitation services (33.2%) are projected to take the bulk of the resources, while research and extension (6.5%) takes the least.

The government looks upon the agricultural sector to play a significant role towards the attainment of the economic pillars of Vision 2030 blueprint (Government of Kenya, 2008). In that regard, additional resources are expected towards the implementation of the SRA to make the sector innovative and commercially-oriented. The agriculture vision

Table 4.2: Costs of agricultural and related MDG interventions

Interventions	Annual cost (billions)	2005–2015 (Ksh Expenditure (Ksh billions)
1. Agriculture Productivity		
a. Improving soil health	4.9	53.9
b. Water/land management and irrigation	12.25	134.75
c. Improved seed	0.81	8.96
d. Support to needy community groups	0.16	1.76
e. Support to private sector food security initiatives	0.15	1.56
Sub-total	**18.26**	**200.93**
2. Research and extension services		
a. Extension	3.0	33.1
b. Agricultural research	1.2	13.1
Sub-total	**4.2**	**46.2**
3. Rural income generation		
a. Livestock enterprises	9.6	105.5
b. Animal and plant health	0.56	6.16
c. Credit and rural financial services	6.65	73.15
d. Food/aid for agriculture	2.52	27.72
e. Farmers associations	0.80	8.85
f. Improved storage facilities	0.04	0.46
g. Development of markets for smallholders	0.21	2.31
Sub-total	**20.39**	**224.16**
4. Sustainable Water and Sanitation services		
a. Model generated water and sanitation service	5.94	65.33
b. Water storage and environmental conservation	2.84	31.19
c. Capacity building	0.058	0.64
d. Legal/institutional services	0.031	0.35
e. Water irrigation (rehabilitation)	2.26	24.81
f. Water irrigation (new developments)	2.65	29.20
g. Flood mitigation	7.76	85.36
Sub-total	**21.53**	**236.88**
Grand Total	**64.38**	**708.17**

Source: Government of Kenya (2005b)

targets an average growth rate of 7 per cent per year, which is anticipated to generate an additional Ksh 80 billion over the next five years. The key strategies contained in the Vision 2030 include:

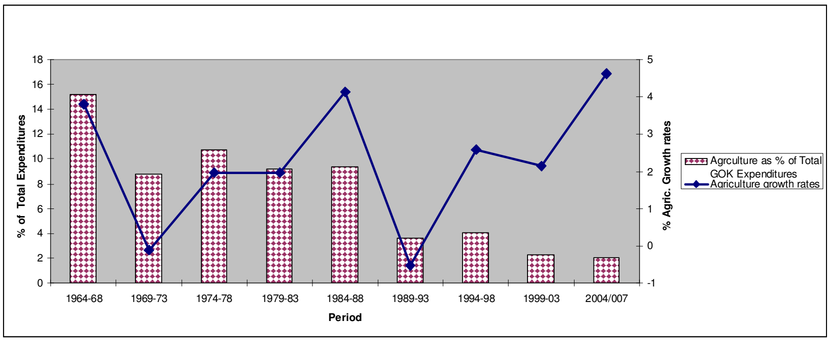
- To increase productivity by raising yields of key crops and livestock.
- To transform land use by bringing at least 1 million hectares of idle land in existing farming areas into productive agricultural use.
- To put an additional 600,000-1.2 million hectares in arid and semi-arid lands (ASALs) under irrigation.

Kenya is also actively involved in implementation of the Comprehensive Africa Agricultural Development Programme, which aims at accelerating agricultural growth on the continent and has the endorsement of the African Union. The country was party to the AU's Heads of State recommendation for increasing agriculture expenditures to 10 per cent.

4.2 Agriculture Expenditure Patterns

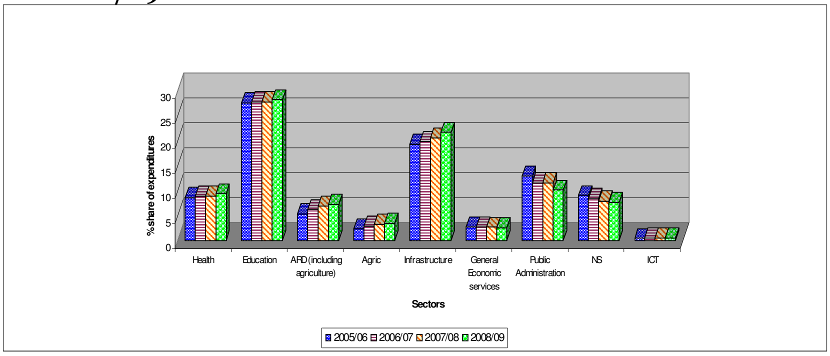
Kenya initiated a series of liberalization measures several years before the conclusion of the Uruguay Round. As a result, most trade-distorting subsidies were either eliminated or brought down to minimum levels during the structural adjustment programmes in the early 1990s. Figure 4.1 indicates a reduction in the percentage share of agriculture

Figure 4.1: Agriculture expenditure and growth rates in Kenya, 1964-2007



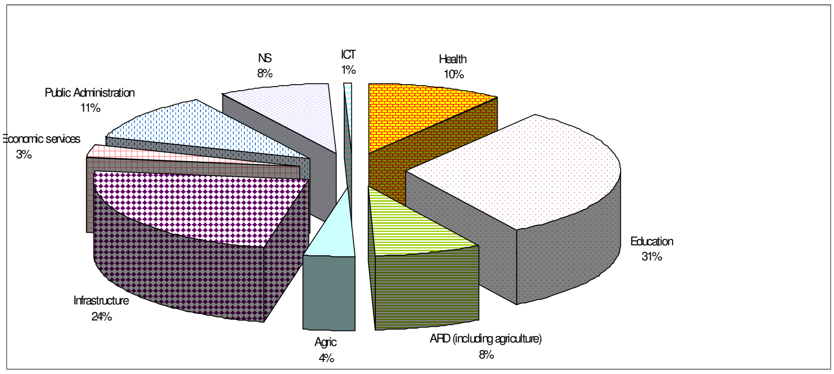
Source: Statistical Abstracts and Printed Estimates

Figure 4.2: Distribution of Government of Kenya spending, 2005/06–2008/09



Source: Government of Kenya (2006b)

Figure 4.3: Distribution of Government of Kenya expenditureduring 2008/09



Source: Government of Kenya (2006b)

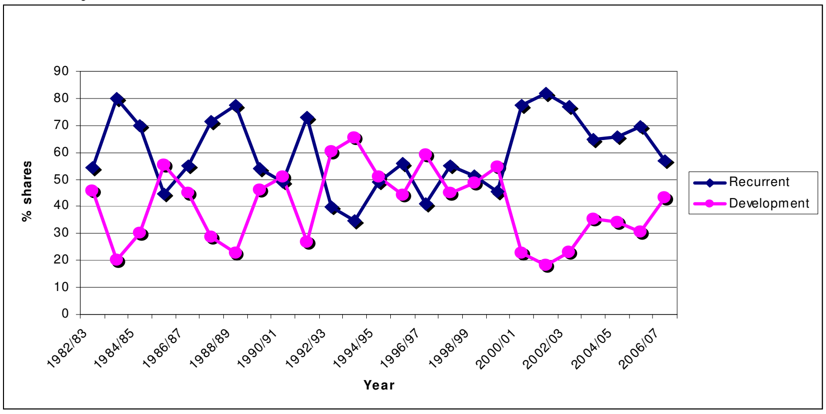
expenditures from 10 per cent in the 80s to less than 5 per cent in the 1990s and barely 3 per cent thereafter.

Following the implementation of the SRA in 2005, the allocation of resources to the agriculture sector increased from 2.4 per cent in 2005/06 to 3.3 per cent in 2007/08 and projected to be 3.5 per cent in 2008/09 (Government of Kenya, 2006b). For agriculture and rural development (ARD)[1] as a whole, the share of resources was projected to increase from 5.3 per cent to 7.3 per cent over the same period as indicated in Figures 4.2 and 4.3.

[1] Agriculture, Livestock and Fisheries Development; Cooperative Development and Marketing; Lands; Environment and Natural Resources; and Regional Development Authorities

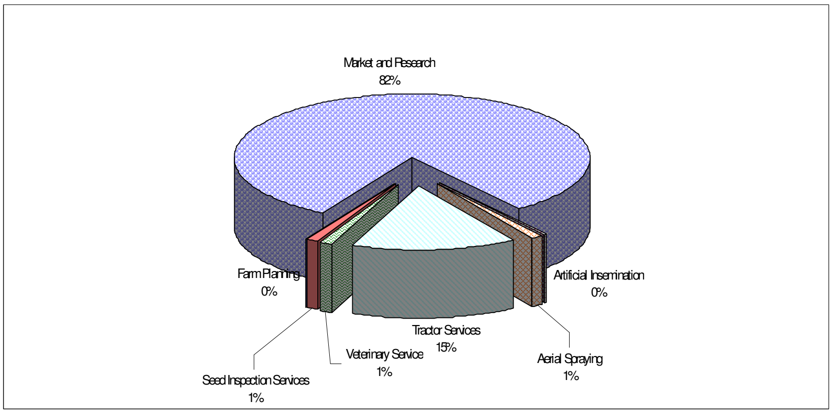
Within the sector, recurrent and development expenditures account for about 60 per cent and 40 per cent (Figure 4.4), respectively. While recurrent expenditures are mainly salaries, development expenditures are on research, market information, animal health services, crop protection, seed inspection, mechanisation services and farm planning services, etc. Figure 4.5 shows development expenditure allocations to the Ministry of Agriculture between 1980 and 2005. On average, over 80 per cent of development expenditures in the Ministry of Agriculture go towards market development, research and publicity followed by tractor services (15%), while the other programmes receive minimal allocations.

Figure 4.4: Agriculture recurrent and development expenditures in Kenya



Source: Statistical abstracts and printed estimates

Figure 4.5: Allocation of agriculture development expenditures in 2005



Source: Statistical Abstract (2005)

Table 6: Projected resource requirements for productive sector (Ksh millions)

	2007/08 Printed Estimates		2008/09		2009/10		2001/11	
Ministry	**Recurrent**	**Devt**	**Recurrent**	**Devt**	**Recurrent**	**Devt**	**Recurrent**	**Devt**
MOA	6,976.2	5,225.7	7,856.8	8,347.4	8,249.73	8,734.7	8,662.21	9,202.9
MOLFD	3,449	1,985	3,180	2,214	4,983	2,449	5,309	2,258
MOCDM	850.75	210	895.46	225.81	1,172.8	350	1,246.2	366.6
MOL	1,473.3	1,898.5	1,562.4	371.4	1,913.8	2,375.2	1,971.04	2,651.5
MENR	3,234	2,402	3,080	2,413	10,581	2,652	11,818	2,801
MORDA	659.1	1,960.9	755.3	2,003	786.5	2,037	811.5	2,069.9
MTW	1,882.3	1,722.7	1,970.7	2,032.7	4,328	2,394.7	4,773.3	2,414.7
MTI	1,888.2	440	2,011.9	473.1	3,802.1	1,959.3	4,149.7	1,889.9
Total	**21,322.8**	**15,870.9**	**23,151.9**	**23,353.7**	**38,687.1**	**32,195.5**	**41,170.8**	**33,769.0**

Source: Government of Kenya (2008)

MOA=Ministry of Agriculture; MOLFD=Ministry of livestock and Fisheries Development; MOCDM=Ministry of.......; MOL=Ministry of Lands; MENR=Ministry of Environment and Natural Resources; MORDA=Ministry of Rfegional Development Authorities; MTW=Ministry of Tourism and Wildlife; MTI=Ministry of Trade and Industry

Currently, the financing of agriculture and agriculture-related interventions take place under the productive sector in the revised Medium Term Expenditure Framework (MTEF). The sector comprises the former Agricultural and Rural Development (ARD) sector and two additional sectors (Tourism and Wildlife and Trade and Industry). Projected resource requirements for the productive sector for 2008/09 to 2010/11 are: Ksh 46.5 billion, Ksh 70.9 billion and Ksh 74.9 billion (Table 4.3). The projections for the development expenditures are: Kshs 23.4 billion, Ksh 32.2 billion and Ksh 33.8 billion, over the period (Government of Kenya, 2008).

5. Options for Providing Domestic Support in Kenya

Under the WTO agreement, domestic support can be provided to agricultural producers in developing countries, including Kenya through the following options:

(i) Production/trade distorting support (AMS);

(ii) The Green Box support;

(iii) The *de mininis* support;

(iv) Production limiting support (Blue Box); and

(v) Special & Differential Treatment support.

In this respect, Kenya has the options to provide support under each of these items, particularly if the outcome of the ongoing negotiations remains as anticipated. Each of the options is discussed below taking into consideration the expenditure trends and planned expenditures and resource allocation patterns.

5.1 Production/Trade Distorting Support

According to the AoA, the aggregate level of production/trade distorting support should not exceed that provided in the 1986-88 AMS base period; this was to be reduced by at least 13.3 per cent in 10 years for all developing countries. Apparently, Kenya did not declare any trade-distorting domestic support to the agriculture sector and is, therefore, not bound by the reduction commitment. However, it is also constrained by the agreement from resorting to this option in future.

5.2 Green Box Support

The Green Box support measures generally fall under the agriculture and related development budgets and are not subject to restrictions under the WTO. They constitute publicly-funded government programmes so long as such support does not involve transfers from consumers; neither do they provide price support to producers. Provision of such support is, however, expensive and requires increased government interventions in both production and marketing. As highlighted earlier, effective implementation of the agriculture and

Table 5.1: Government expenditure and MDG resource requirements from printed estimates (Ksh millions)

	2007/08	2008/09	2009/10	2001/11
MOA	5,225.7	8,347.4	8,734.7	9,202.9
Productive sector	15,870.9	23,353.7	32,195.5	33,769.0
MDG interventions	64,380	64,380	64,380	64,380

Source: Government of Kenya (2008)

related MDG-related intervention requires an annual outlay of Ksh 64.38 billion (Government of Kenya, 2006a) (Table 5.1). The latter is more than double the annual MTEF development expenditure projections even for the expanded productive sector.

5.3 *De minimis*-related Support

De minimis-related support refers to the maximum percentage level of trade-distorting support that WTO member states are allowed to provide in a given year (Table 5.2). Currently, developing countries are not required to provide support that exceeds 10 per cent of the total value of agricultural production in the calculation of their total trade distorting support (WTO, 2007).

De minimis support can be either product or non-product specific. *Non-product specific de minimis* includes price support to producers' up to 10 per cent the value of farm-gate production; for instance, between 2000 and 2005, total agricultural output in Kenya was about Ksh 357 billion per annum (Government of Kenya, 2007a). Thus, the government could provide up to Ksh 35.7 billion worth of price and production support. Over the years, the country's agriculture development expenditure as a percentage of *de minimis* limits have been below 10 per cent as shown in Figure 5.1.

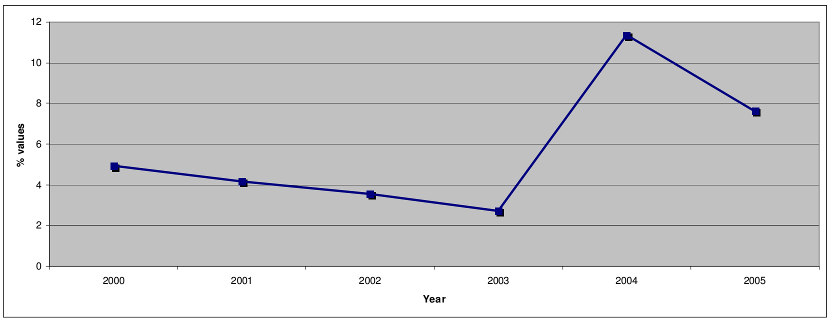
As with *non-product specific de minimis*, *product-specific de minimis* support was agreed at 10 per cent marketed value of specific commodities; hence, considering the priority sub-sectors identified in the Vision 2030, the estimated support limits would be Ksh 5.1 billion for industrial crops (tea, coffee, sugar cane, pyrethrum and sisal), Ksh

Table 5.2: *De Minimis* limits for principal crops (Ksh millions)

	2001	2002	2003	2004	2005
Industrial Crops					
Tea	3856	3341.5	3463.5	4121.1	3,884.3
Coffee	643	544.3	595.4	728.1	900.9
Sugar cane	715.5	907	756.7	839	917
Cotton	0.9	1.9	3.6	4.9	5.2
Sisal	95.7	93.7	106	127.8	132
Pyrethrum	78.7	124.1	80.5	292	19.3
Horticulture					
Vegetables	803	1,047	1,059.1	1,206.8	1,389.1
Cut flowers	1,062.7	1,479.1	1,649.6	1,872	2,289.7
Fruits	156	146.1	175.3	180.3	204.9
Food Crops					
Maize	627.5	411.5	333.7	688.1	634.2
Wheat	143	98.8	137.4	186.4	223.3
Rice	50.7	30.4	32	68.6	992.8

Source:Government of Kenya Printed Estimates and authors' calculations

Figure 5.1: Development expenditures as a percentage of *de minimis* limits



Source: Statistical Abstracts and own calculations

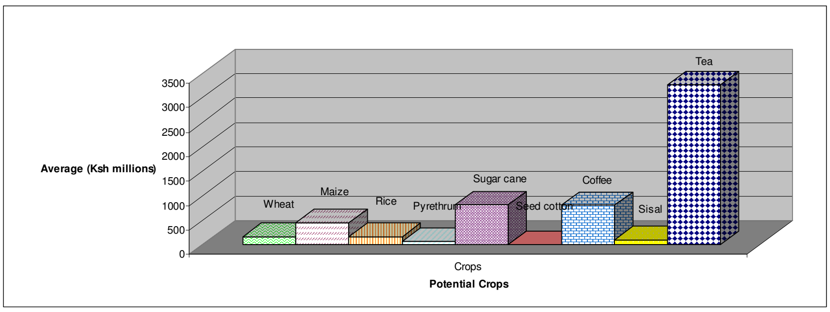
2.7 billion for food crops (maize, wheat and rice), and Ksh 0.7 billion for horticulture (cut-flowers, vegetables and fruits) per annum for the period 2000-2005 (Figure 5.2). These limits rise as the values of production increase; for instance, the *de minimis* limit for horticultural products for 2007 was Ksh 6.72 billion. In the case of livestock sub-sectors, the *de minimis* limits were highest for cattle and calves for slaughter (Ksh 993.6 million), dairy products (Ksh 431.7 million) and sheep, goat and lambs for slaughter (Ksh 226.8 millions).

De minimis limits for livestock and livestock products are presented in Table 5.3 and Figure 5.3. During 2005, the figures were highest for cattle and calves for slaughter (Ksh 993.6 million), dairy products (Ksh 431.7 million) and sheep, goat and lambs for slaughter (Ksh 226.8 millions). Likewise, fresh water fish have higher *de minimis* limits (Ksh 754 millions) compared to other fisheries products during the same period.

5.4 Blue Box Support

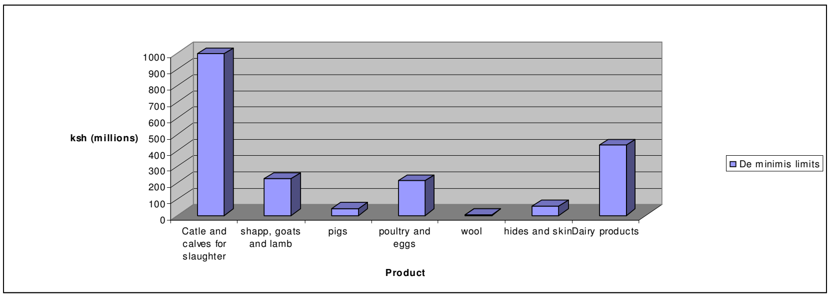
As indicated earlier, direct payments under production limiting programmes (Blue Box measures) are exempt from reduction commitments to accommodate certain ongoing policies pursued mainly by developed countries. The programmes (i.e. measures) are of less significance to Kenya and other developing countries that do not have and are not expected to undertake production-limiting programmes. The problem is under-production rather than over-production.

Figure 5.2: Average *de minimis* limits for selected crops (2001-2005)



Source: Authors' computation

Figure 5.3: *De minimis* limits for livestock and livestock products, 2005



Source: Authors' computation

Table 5.3: *De minimis* limits for livestock and fisheries products (Ksh millions)

	2001	2002	2003	2004	2005
1. **Livestock products**					
Cattle and calves for slaughter	907.86	1159.2	1043.28	912.6	993.6
Sheep, goats and lambs for slaughter	145.735	242.1	217.98	207	226.8
Pigs for slaughter	31.75	28.57	32.85	38.8	40.68
Poultry for slaughter	207.46	181.65	189.1	190.73	212.62
Wool	1.17	1.94	1.44	0.92	0.73
Hides and skin	60.84	62.06	55.85	48.85	56.19
Dairy products	191.96	231.4	264.28	356.28	431.7
2. **Fisheries products**					
Fresh water fish	745.3	715.9	646.9	753.9	-
Marine fish	24.5	26.6	28.6	32.8	-
Crustaceans	19.8	21.3	17.6	22.1	-
Other marine products	2.2	2.6	2.5	3.0	-

Source: Government of Kenya Printed Estimates and authors' computations

5.5 Special and Differential Treatment-related Support

The provisions regarding special and differential treatment-related support are over and above the Green Box and *de minimis* domestic support measures. They include a special category of support policies specific to developing countries, namely generally available investment subsidies and agricultural input subsidies to low-income producers. Other policies are: smaller commitment reduction requirement, a higher *de minimis* level and a longer implementation period.

The agreement further recognizes that government assistance to encourage agricultural and rural development is an integral part of development in developing countries.

5.6 Challenges for Agriculture Development

From the preceding sub-sections, it is shown that the AoA provides concessions to scale up domestic support. However, so far, there has been minimal utilization of the existing policy space. Some of the constraints and challenges that inhibit utilization of the WTO provisions for sustainable development of the agricultural sector in Kenya include the following:

1. *Limited resource base and low budget allocations to the sector*. There has been declining government and donor funding and concessionary lending from financial institutions to agriculture in real terms despite recognition of the importance of the sector to economic development. The share of agriculture and rural development expenditure to total budgets have been declining over the years. The allocation to Ministry of Agriculture increased marginally from 2.3 per cent in 2005/06 to 2.4 per cent in 2006/07. Recent reports indicate that MTEF resource allocation to the Agriculture and Rural Development (ARD) sector has averaged about 6 per cent of total government expenditure over the last 3 years, which is far below the recommended 10 per cent budget allocation by African Heads of State in 2003 in Maputo, Mozambique.

   Low budget allocations have had adverse impact on the country's growth and development prospects due to its invariably wider role in domestic economy. Secondly, the agriculture sector is largely invisible in the revised and expanded MTEF and fails to make a strong case for extra budgetary resources. In addition, competition for resources from other sectors such as education, health, infrastructure and security deny the sector necessary resources for sustainable development.

2. *Poor ministerial budget allocations and use*. As indicated earlier, there exists a skewed allocation of budgets between development and recurrent expenditures within the productive sector and the respective ministries. For instance, development expenditure, which are supposed to support agriculture programmes and activities, traditionally account for only 25 per cent to 40 per cent, while the remaining 75 per cent to 60 per cent go to recurrent expenditures (Ministry of Agriculture, 2007). The resource allocation trends contained in Annex II portend more less a similar trend. In addition, over 80 per cent of the development expenditures go to research and markets, leaving a paltry 20 per cent to the rest of the activities. Improvements in the allocation of resources within the sector will be necessary to effectively enhance productivity within the sector.

   The other important issue is the relatively low absorption of development budgets within the ministries. For instance, records indicate that although the resource envelop has been increasing over the last 3 years (i.e., from Ksh 4.7 billion in 2003/04 to Ksh 6.7 billion in 2005/06) actual expenditures have been very low and the percentage absorption rate are presented in Table 5.4.

Table 5.4: Absorption of development expenditures in productive sector

Ministry	2003/04	2004/05	2005/06	2006/07
MOA	84.75	58.26	70.10	73.8
MOLFD	47.42	11.94	38.41	36.8
MENR	83.52	87.50	69.78	75.1
MRDA	100.00	144.05	79.71	100.0
MOL	62.73	154.36	111.34	28.6
MOCDM	83.05	41.76	59.32	84.1
MTOW	91.40	99.20	100.00	90.5
MOTI	27.10	79.20	49.50	53.6

Source: Government of Kenya (2007)

During 2006/07, the major ministries with serious absorption difficulties were those of Agriculture, Livestock and Fisheries, Environment, Lands, Cooperatives and Trade. The low absorptions were attributed to cumbersome procurement processes and inadequate procurement planning; cash float problems at the district treasuries and inadequate human capacity to support project implementations.

3. *Weaknesses in legal and institutional frameworks*. Agriculture and related programmes are currently spread across various ministries and other government agencies. The legislations and laws governing these activities are many, outdated and conflicting, thereby making it difficult to effectively budget for and implement various programmes. This leads to conflict of interests; the net effect is that the limited resources end up being spread across several agencies with the bulk being redirected towards recurrent as opposed to development expenditures. In addition, producer organizations in Kenya are generally weak and unable to bargain effectively to stabilize producer prices or facilitate avenues for improvement of competitiveness.

4. *Natural and socio-economic factors*. Performance of the agricultural sector largely depends on weather conditions and is associated with high risks, making it un-attractive *vis-à-vis* other alternative investments. It is also affected by other macroeconomic variables such as inflation, infrastructure and security, which directly influence the production and commodity prices. In Kenya, these factors have placed a heavy burden on the sector and require a multi-sectoral approach to solve.

5. *Ambiguity and ineffectiveness of WTO rules on subsidies*. The distinction between trade and non-trade distorting domestic support is difficult to make within the confines of the WTO definition. By and large, increased expenditures on government financed programmes (Green Box), which are not subject to expenditure cuts equally have the capacity to distort production and trade in the agriculture sector. This flexibility has given both developed and developing countries that have resources reason to increase such support at the expense of non-subsidizing member states. Secondly, despite the expectations that developing countries will retain policy space to support agriculture as opposed to developed countries, a major challenge is to win the commitment of the latter to reduce

trade distorting support, which has negatively affected other countries' agriculture performance.

A review of the implementation of the AoA shows that the US, EU and Japan have merely shifted support from the Amber to Green and Blue Box programmes, with more or less similar effects on production and trade. The proponents of Green Box supports argue that it provides a transitional option of moving from trade-disruptive alternatives, after which it will be easier to facilitate the movement away from price and production linked subsidies. However, shifting support by developed countries may simply keep resources in agriculture that would otherwise be used elsewhere, thereby negating the beneficial adjustment and trade affects of a reduction in Amber Box.

6. *Commitments under regional integration arrangements*. Kenya is a signatory to a number of regional economic integration arrangements, notably EAC and COMESA. Under both economic blocs, she has made a number of commitments including tariff reduction and subsidy elimination. Thus, despite the existing policy space for agriculture support in the WTO, it may not be possible to provide certain support measures, particularly to uncompetitive sectors, without challenge from member states of the regional organizations.

6. Conclusion, Recommendations and Further Research

6.1 Conclusions

Direct government interventions, which include provision of subsidies to farmers, are required for sustainable solutions to the issues that are presently facing the agricultural sector in Kenya. A critical review of the provisions of the Agreement on Agriculture indicates that there is substantial policy space for Kenya to increase government support to agriculture and rural development under the Green Box. Additional flexibilities are provided for under the special and differential treatment, which encompasses, among others, higher *de minimis* levels and longer implementation periods. These measures are aimed at addressing development concerns and promotion of measures to promote rural development and food security.

However, Kenya has in the past failed to fully utilize the existing flexibilities to effectively improve the productivity and competitiveness of the agriculture sector. This is evident from the relatively low budget allocations, which have remained insufficient to make meaningful impact. Yet, it is evident that the high agricultural productivity and growth experienced during the first two decades after independence were the result of favourable policies, including high investments and budgetary support by the government. Besides, expenditure trends within the sector are largely skewed towards administrative and management rather than actual implementation of various programmes.

In order to effectively reform the agricultural sector, there is urgent need for additional resources to increase agriculture productivity through provision of farm inputs, irrigation and land rehabilitation programmes, value addition and market development. Besides, strengthening the legal and institutional framework to reduce barriers to production, processing and marketing should be prioritized. At the multilateral level, the country should join hands with other developing and less developed WTO member states and pursue an offensive strategy by pushing for increased market access for agricultural products and effective limitations for agriculture subsidization by developed countries.

6.2 Recommendations

In light of the aforementioned constraints and challenges, the following recommendations are suggested:

1. *Increase funding for agriculture and rural development*. In order for agriculture to play an effective role in food provision, food security, income generation and overall rural development, there is need to double agriculture expenditures. Such an initiative can be under Green Box programmes to avoid being challenged by other WTO member states. Secondly, the ministries responsible for agriculture and rural development must improve coherence, efficiency and effectiveness of programmes to not only achieve intended objectives, but also build the case for extra budgetary resources to the sector. Besides, there should be a deliberate shift in resource allocation towards development as opposed to recurrent expenditure within the ARD sector. The government should also expand the scope of development programmes in the sector and discard allocations based on historical trends and socio-political factors.

2. *Development of specific incentives and support programmes*. In order to realize the objectives of the Vision 2030 (i.e. increased productivity, utilization of land and competitiveness of agriculture products in international markets) a decentralized approach is required as follows:

    a) *Increasing agriculture productivity*. Programmes geared towards enhancing accessibility of farm inputs and services including—but not limited to—quality seeds, fertilizer, and extension and credit services. Priority should be given to coffee, sugar cane and cotton (industrial crops); vegetables and fruits (horticulture); maize, wheat and rice (food crops) and livestock and fish. The yields and value per hectare of these agricultural products have great potential for improvement, particularly in the rural areas. In addition, there is need to consider promoting the production of other commodities such as sweet potatoes, cassavas and peppers, which are not only early maturing but can also be easily cultivated by small-scale farmers.

    b) *Increased utilization of high and medium potential land and the ASALs*. Currently, there is significant under-exploitation of land for agricultural production (i.e. only 31% of land is under crop production in medium and high potential areas). There is urgent need to rehabilitate stalled irrigation schemes and develop new ones in targeted rural communities. ASALs have great potential for crop and livestock production and represent about 84 per cent of Kenya's total land mass.

c) *Value addition and market development for agricultural products*. The government should consider specific incentives and support programmes for processed agricultural products, including aid to processed fruit and vegetable based products, industrial crops (tea, coffee, sugar-cane and cotton) and livestock and fish products. This will assist in improving producer returns and also bridge the gap between domestic and world-market prices for products that benefit from minimum grower prices. Establishing thresholds and incentives for provision of such support could assist producers shift towards production of higher value added products.

3. *Provision of agriculture-specific investment incentives and safety-net programmes*. There is need for the government to develop agricultural investment incentives and safety net programmes with a view to commercializing smallholder agriculture and moving them beyond subsistence to profitable production. These should include fiscal incentives for supply of agriculture inputs, credit schemes, bio-energy programmes and income insurance and safety-net programmes. At the macro level, good infrastructure, greater market integration, research and extension services, safety nets against transitory shocks and programmes remain government functions that will continue to be required in a decentralized fashion to stimulate greater investments in the sector.

4. *Amendment of the legal and institutional framework*. Legal and institutional reforms are central and necessary in the improvement of productivity and competitiveness of the agriculture sector. An appropriate legal and institutional framework will also reduce existing barriers in production, processing and marketing of agricultural produce. This should involve repeal of outdated laws and regulations that impede the growth of the agriculture and rural development sector (e.g. those related to land and water use and management and rationalization and consolidation of the roles and functions of various state and non-state agencies within the sector).

The reform exercise should involve all the ministries within the productive sector of the MTEF. The other important stakeholders are the Ministry of Planning and National Development, Ministry of Finance, Office of the President, Ministry of Water Resources, the Attorney General's Chambers, universities, research institutions and farmers.

These reforms should also facilitate the harmonization of various laws and regulations affecting agriculture. The Parliamentary Committee on Agriculture, Lands and Natural Resources should take a leading role in lobbying for the enactment of the amended law by the National Assembly. In addition, the ministries responsible for agriculture and rural development must improve coherence, efficiency and effectiveness of programmes to achieving intended objectives, but also building the case for extra budgetary resources to the sector.

5. *Expansion of financial base*. In order to fill domestic support financing gaps, priority should be given to the exploration of alternative revenue mobilization strategies. There is need to lobby development partners to provide more funds to agriculture and also to simplify disbursement procedures to avoid delays and under-utilization of available funds. The Ministries of Agriculture and Finance should coordinate and lead the resource mobilization efforts.

   Due to scarce financial resources, the government should facilitate increased agriculture funding from financial institutions and the private sector as a substitute to the traditional sources. These include promotion of savings deposits, debt instruments and participation in equity markets in rural and peri-urban areas. Some of the institutions that may be instrumental in lending in this sector are, among others, agricultural development banks, cooperatives, micro-finance institutions, rural-based banks and NGOs. The role of government in this case, should be to:

   - Assist lenders in accessing the capital market;
   - Establish viable guarantee mechanisms for creditors;
   - Create mediators that would buy loan portfolios of small financial institutions;
   - Create venture capital funds specific to agriculture;

- Provide technical assistance and national savings-education strategy;
- Create conducive environment for savings mobilization; and
- Provide long-term resources for essential basic social and economic infrastructure.

6. *Supporting producer organizations.* Producer organizations have been known to facilitate compliance with various production techniques, standards management and marketing of products, particularly in the developed world. In addition, they are a useful link between farmers and the government and some of the resources to the sector could also be easily channelled through such organizations. There is need to strengthen producer organizations to be able to stand together if they want to bargain effectively on producer prices and as a means of opening the door to valuable initiatives to raise competitiveness.
7. *Adoption of an offensive strategy in the on-going Doha negotiations*. Developed countries should persistently be prevailed upon to open up their markets and reduce domestic support to allow for fair competition against non-subsidized farmers. A defensive strategy for seeking legal room to apply subsidies is weak if there are no immediate resources for implementation. Kenya, along with other countries, must be steadfast in ensuring that clearer rules are developed to prevent developed countries from maintaining high support levels by switching the method of payment simply to avoid subsidy constraints. The Ministries for Trade and Industry and Agriculture should spearhead the process.

6.3 Scope for Further Research

The major limitation of this study was lack of elaborate and consistent data on government expenditures that may be classified under the Green Box domestic support measures under the WTO agreement, and which would go towards agriculture and rural development. This was mainly because many government ministries and institutions within the productive sector have overlapping roles. In addition, other ministries, particularly those under the infrastructure have mandate and roles that directly affect agricultural activities, yet they lie outside the scope of the productive sector. Other ministries, such as that of Special Programmes, draw their budget from the Office of the President while those of Finance and Planning coordinate other projects/programmes that would otherwise fall under ministries within the productive sector. Therefore, the study limited its scope to the productive sector as defined in the MTEF financing programme.

Secondly, the economic classification of expenditures adopted by the MTEF does not provide sufficient information particularly with regard to recurrent and development expenditures. Finally, the study did not consider donor funds in the estimation of expenditure limits in the various policy options for domestic support.

In light of the above limitations, there is need for a more comprehensive study to establish desirable levels of Green Box domestic support in Kenya for effective planning and future regional and international negotiations on agriculture.

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Annex

Annex I: Guidelines for Eligibility of Programmes for the Green Box Support

1. Basic criteria

All measures for which exemption is claimed shall conform to the following basic criteria:

(a) The support in question shall be provided through a publicly-funded government programme (including government foregone revenue) not involving transfers from consumers; and

(b) The support in question shall not have the effect of providing price support to producers.

In addition, the policy-specific criteria and conditions are as follows:-

2. General service programmes

Policies in this category involve expenditures (or revenue foregone) in relation to programmes that provide services or benefits to agriculture or the rural community. They shall not involve direct payments to producers or processors. Such programmes, which include but are not restricted to the following list, shall meet the general criteria in paragraph 1 above and policy-specific conditions where set out below:

(a) Research, including general research, research in connection with environmental programmes, and research programmes relating to particular products;

(b) Pest and disease control, including general and product-specific pest and disease control measures, such as early warning systems, quarantine ad eradication;

(c) Training services, including both general and specialist training facilities;

(d) Extension and advisory services, including the provision of means to facilitate the transfer of information and the results of research to producers and consumers;

(e) Inspection services, including general inspection services and the inspection of particular products for health, safety, grading or standardization purposes;

(f) Marketing and promotion services, including marketing information, advice and promotion relating to particular products, but excluding expenditure for unspecified purpose that could be used by sellers to reduce their selling price or confer a direct economic benefit to purchasers; and

(g) Infrastructural services, including electricity reticulation, roads and other means of transport, market and port facilities, water supply facilities, dams and drainage schemes, and infrastructural works associated with environmental programmes. In all cases, the expenditure shall be directed to the provision or construction of capital works only, and shall exclude the subsidized provision of on-farm facilities other than for the reticulation of generally available public utilities. It shall not include subsidies to inputs or operating costs, or preferential user charges.

3. Public stocking for food security purposes

Expenditures (or revenue foregone) in relation to the accumulation and holding of stocks of products, shall form an integral part of a food security programme identified in national legislation. This may include government aid to private storage of products as part of such a programme.

The volume and accumulation of such stocks shall correspond to predetermined targets related solely to food security. The process of stock accumulation and disposal shall be financially transparent. Food purchases by the government shall be made at current market prices and sales from food security stocks shall be made at no less than the current domestic market price for the product and quality in question.

4. Domestic food aid

There shall be expenditures (or revenue foregone) in relation to the provision of domestic food aid to sections of the population in need. Eligibility to receive the food aid shall be subject to clearly-defined criteria related to nutritional objectives. Such aid shall be in the form of direct provision of food to those concerned or the provision of means to allow eligible recipients to buy food either at market or at subsidized prices. Food purchases by the government shall be made at current market prices and the financing and administration of the aid shall be transparent.

5. Direct support to producers

Support provided through direct payments (or revenue foregone, including payments in kind) to producers for which exemption from reduction commitments is claimed shall meet the basic criteria set out in paragraph 1 above, plus specific criteria applying to individual types of direct payments as set out in paragraphs 6 through 13 below. Where exemption from reduction is claimed for any existing or new type of direct payment other than those specified in paragraphs 6 through 13, it shall conform to criteria (b) through (e) in paragraph 6, in addition to the general criteria set out in paragraph 1.

6. Decoupled income support

a) Eligibility for the programme must be based on clearly defined criteria over a fixed base period.

b) Payment amounts cannot be related to production, prices or input usage after the base period.

c) Payment amounts cannot be related to prices, domestic or international, applying to any production undertaken in any year after the base period.

d) Payments shall not be related or based on factors of production employed in any year after the base year.

e) No production can be required to receive payments.

7. Government-provided income support insurance or safety net programmes

a) Income and income loss can only be from agricultural sources.

b) Loss must exceed 30 per cent of average gross income (or an equivalent of net income) where average income is determined by a three- year average income (from the previous three years) or a five-year 'Olympic' average income (removing the high and low years before averaging).

c) The amount of payments shall compensate for less than 70 per cent of the producer's income loss in the year the producer becomes eligible to receive this assistance.

d) If payments are provided by this programme and a natural disaster relief programme, the total amount of payments cannot exceed 100 per cent of the producer's total loss.

8. Payments for relief from natural disasters

a) Income and income loss can only be from agricultural sources.

b) Loss must exceed 30 per cent of average gross income (or an equivalent of net income) where average income is determined by a three-year average income (from the previous three years) or a five-year 'Olympic' average income.

c) If payments are provided by this programme and a natural disaster relief programme, the total amount of payments cannot exceed 100 per cent of the producer's total loss.

9. Producer retirement programmes

a) Payments are conditional on the resource staying out of agricultural production for at least three years.

b) Requirements cannot be placed on alternative use of the resource or other resources employed in agricultural production, and payments cannot be related to any remaining agricultural production in which the producer is involved.

10 Structural adjustment assistance provided through resource retirement programmes

a) Payments are conditional on the resource staying out of agricultural production for at least three years.

b) Requirements cannot be placed on alternative use of the resource or other resources employed in agricultural production, and payments cannot be related to any remaining agricultural production in which the producer is involved.

11. Structural adjustment assistance provided through investment aids

(a) Amount of such payments shall not be related to the type or volume of production undertaken by the producer in any year after the base period other than as provided for under criterion (e) below.

(b) The amount of such payments shall not be based on prices applying to any production.

(c) The payments shall be given only for the period of time necessary for the realization of the investment in respect of which they are provided.

(d) The payments shall not designate the agricultural products to be produced by the recipients except to require them not to produce a particular product.

(e) The payments shall be limited to the amount required to compensate for the structural disadvantage.

12. Payments under environmental programmes

a) There shall be clearly defined eligibility requirements dependent on specific conditions, possibly involving production inputs or practices, and if the payment is limited to the extra cost or income loss, the producer shall be forced to be in compliance.

13. Payments under regional assistance programmes

a) Payments shall be limited to producers in disadvantaged regions and shall not be related to the type or volume of production undertaken by the producer in any year after the base period other than to reduce that production.

Annex II: Share of agriculture expenditures against total government expenditures, 1982-2006 (Ksh million)

Year	Recurrent	Development	Total	Share (%)
1982/83	1048	886	1934	8.1
1983/84	1166	294	1460	5.8
1984/85	1808	780	2588	8.5
1985/86	1244	1552	2796	8.5
1986/87	2454	1994	4448	10.7
1987/88	3362	1354	4716	6.1
1988/89	6200	1832	8032	12.9
1989/90	1654	1422	3076	4.8
1990/91	772	804	1576	2.8
1991/92	266	98	364	0.4
1992/93	2340	3544	5884	4.8
1993/94	3212	6058	9270	5.1
1994/95	3688	3844	7532	4.1
1995/96	4322	3410	7732	4.2
1996/97	4590	6636	11226	5.5
1997/98	4268	3488	7756	3.2
1998/99	4868	4598	9466	3.4
1999/00	4422	5316	9738	2.5
2000/01	5534	1612	7146	2.4
2001/02	6428	1432	7860	2.3
2002/03	3128	928	4056	2.23
2003/04	3256	1784	5040	1.91
2004/05	3364	1756	5120	1.71
2005/06	5052	2216	7268	2.02
2006/07	5850	4432	10282	2.4

Annex III: Total aggregate measurement of support (AMS) commitments

Country	Years	Level (US$)	Level
USA	1995	23,083(20,297.2)	23,083 (20,297.2)
	1996	22,287	22,287
	1997	21,491	21,491
	1998	20,695	20,695
	1999	19,899	19,899
	2000	19,103	19,103
	2001	19,103	19,103
	2002	19,103	19,103
	2003	19,103	19,103
	2004	19,103	19,103
EU	1995	-	78,670 (70,613)
	1996	-	76,370
	1997	-	74,070
	1998	71,189.6	71,760
	1999	61,787.2	69,460
	2000	59,772.4	67,160
	2001	63,130.4	67,160
	2002	75,890.8	67,160
	2003	83,278.4	67,160
	2004	19,103	67,160
Japan	1995	4,801	4,801 (4,21.2)
	1996	4,264.2	4,635
	1997	3,710.1	4,470
	1998	3,314.08	4,304
	1999	3,642.32	4,139
	2000	3,694.89	3,973
	2001	3,257.86	3,973
	2002	3,178.4	3,973
	2003	3,416.78	3,973
	2004	3,655.16	3,973
South Africa	1995	657.45	2,435.3 (2,141.4)
	1996	540.73	2,351
	1997	476.07	2,267
	1998	392.94	2,183
	1999	335.84	2,099
	2000	282.1	2,015
	2001	221.65	2,015
	2002	181.35	2,015
	2003	261.95	2,015
	2004	302.25	2,015
Brazil	1995	1,132.51	1,039.1 (975.6)
	1996	1,014.75	1,025
	1997	929.936	1,010.8
	1998	857.162	996.7
	1999	540.485	982.7
	2000	523.044	968.6
	2001	400.848	954.4
	2002	329.105	940.3
	2003	296.384	926.2
	2004	310.114	912.1

Source: USDA (2006); brackets indicate country averages

Annex IV: Expenditures on agricultural production services (Ksh '000)

Year	MR	AI	AS	TS	VS	SIS	FP
1980	131.2	0.85	6	118.15	1.55	2.3	0.05
1981	135.15	0.85	6.2	121.75	1.6	2.35	0.05
1982	145.95	0.9	6.5	126.15	1.6	2.4	0.05
1983	153.3	0.95	6.75	130.55	1.75	2.4	0.1
1984	156.3	0.95	6.85	133.8	1.9	2.4	0.1
1985	164.05	1	6.95	147.2	2.5	4.1	0.1
1986	154.05	0.75	7.05	52.6	8.7	5.65	0.2
1987	-	-	-	-	-	-	
1988	158.7	0.9	7	103.65	5.6	5.2	0.3
1989	156.95	0.85	7.2	89.15	7.15	5.55	0.3
1990	465.75	0.9	7.05	101.35	6.1	5.5	0.3
1991	489.45	0.85	7.2	101.5	6.25	5.5	0.3
1992	477.95	0.85	7.2	92.15	7.05	5.85	0.25
1993	535	0.8	7.25	90	7.3	5.95	0.2
1994	490.75	0.75	7	90.25	7.4	6.05	0.25
1995	522.5	0.8	7.45	96.2	7.9	6.45	0.25
1996	562	0.85	8	103.55	8.5	6.95	0.25
1997	584.4	0.9	8.3	107.6	8.85	7.2	0.25
1998	631.05	0.95	8.95	116.2	9.55	7.8	0.25
1999	649.9	1	9.2	119.65	9.85	8.05	0.25
2000	607.6	0.95	8.6	111.85	9.2	7.5	0.25
2001	699.2	1.1	9.9	128.7	10.6	8.65	0.3
2002	694.05	1.1	9.8	127.75	10.5	8.55	0.3
2003	728.75	1.15	10.3	134.15	11.05	9	0.3
2004	736.6	1.15	10.45	135.6	11.15	9.1	0.3
2005	752.1	1.2	10.65	138.45	11.4	9.3	0.3

KEY: MR - Market and Research; AI - Artificial Insemination; AS - Aerial Spraying; TS - Tractor Services; VS - Veterinary Services; SIS - Seed Inspection Services; FP - Farm Planning

Source: Statistical Abstracts and own calculations

Other Related KIPPRA Publications

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