Should Kenya Revert to Price Controls?

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Abstract

Prices of many essential items (including food items) in Kenya have sharply risen in the last few years. Such rises can have adverse consequences, including political and economic instability. In an attempt to address the problem, Kenya's Parliament recently passed a Bill that proposes to control the prices of essential goods, including maize, rice, wheat, cooking oil, petrol, diesel and paraffin. This study assesses whether there is a problem to justify the decision taken by Parliament; determines the most important causes of the problem; and whether price control is the most cost-effective intervention to solve the problem. The study recommends alternative policy options that may achieve what the Members of Parliament (MPs) are targeting.

From review of literature and situational analysis of the commodity markets, the study comes to several conclusions. First, as prices were rising from 2007 onwards, per capita income was shrinking, eroding the consumers' purchasing power and ability to afford essential goods. Thus, the problem that the MPs sought to address with price control is real. Second, the prices for all the targeted commodities have been rising over the last few years and, in almost all the cases, domestic prices were above international prices. Third, consumption of the commodities in the country outstrips domestic production, leading to shortages and higher prices. In fact, the situation seems to be getting worse for most of the essential commodities, with domestic production either declining or remaining stagnant while consumption is rising. Several sector constraints have been identified as the main causes of the high food prices, including high production costs, poor weather conditions, poor governance, rising population and diversification of consumption patterns, wastage as well as trade policy issues.

The study observes that even though price controls have merit when markets are not perfect, direct price controls as a long term measure have not worked in the past in Kenya and elsewhere. In addition, price controls will violate international and regional trade agreements that the country has signed; will lead to shortages of the goods targeted, leading to queues and black markets, which will hurt the consumer even more; may lead to collapse of the sectors targeted when producers cannot make reasonable profits; will require policing which, other than increasing administration costs, will lead to corruption. Further, the price controllers may not have full information to be able to set prices at optimum levels, and the prices set may end up having more adverse welfare impacts than those set by the market even with its imperfections. Moreover, while a case can be made for setting quality standards, prescribing "... the type of packing, weight, size, quality, marking and the processing and ingredients of

any such goods manufactured in Kenya" is another form of direct control that would curtail innovation to the ultimate disadvantage of the consumer, who is supposed to be the beneficiary of the legislation.

The study, therefore, concludes that direct price controls will not be beneficial in the long term and recommends alternative policy options to address the escalating cost of essential commodities. The options include social benefit programmes to cushion the consumers in the short term, and long term measures to address trade policy and governance issues, as well as supply and demand constraints to ensure domestic production is sufficient to cater for demand. The long term measures that would improve food security and reduce food prices include increased funding for agricultural projects, increasing the acreage of food crops under irrigation, and investment in alternative sources of energy, among other measures. Strengthening the regulatory framework for competition to check against anti-competitive trade practices and consumer protection as envisaged in the Draft Competition Bill 2009 and Article 46 of the Constitution will also be important. Moreover, regular monitoring of anti-competitive market behaviour and conduct in these sectors, and taking of remedial action are imperative.

Abbreviations and Acronyms

AGO	Automotive Gas Oil
BGHL	Bulk Grain Handling Ltd
CCK	Communications Commission of Kenya
COMESA	Common Market for Eastern and Southern Africa
CPA	Cotonou Partnership Agreement
DTA	Double Taxation Agreement
EAC	East Africa Community
EAGC	East African Grain Council
EPZA	Export Processing Zones Authority
ERC	Energy Regulation Commission
EU	European Union
FAO	Food and Agriculture Organization
GPCO	General Specific Price Control Orders
IEA	Institute of Economic Affairs
IFRI	International Food Policy Research Institute
KACE	Kenya Agricultural Commodity Exchange
KNBS	Kenya National Bureau of Statistics
KOSF	Kipevu Oil Storage Facility
KPC	Kenya Pipeline Company
KPRL	Kenya Petroleum Refineries Limited
LBDA	Lake Basin Development Authority
LPG	Liquefied Petroleum Gas
MOE	Ministry of Energy
MSP	Motor Spirit Premium
NCPB	National Cereals and Produce Board
NIB	National Irrigation Board
NOCK	National Oil Corporation of Kenya

OTS	Open Tender System
SGR	Strategic Grain Reserve
STR	Simplified Trade Regime
SPCO	Specific Price Control Orders
TCD	tonnes of cane per day
TPD	tonnes of oilseeds per day
TRIPS	Trade-Related Aspects of Intellectual Property Rights
WTO	World Trade Organization

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1. Background: What Is the Issue?

Prices of many essential items (including food items) in Kenya have sharply risen in the last few years. For instance, cooking oil prices have increased by as much as 50 per cent since the year 2000. Similarly, nominal sugar price increased by about 64 per cent between year 2000 and 2009. Sharp rises in prices of essential food items have several adverse consequences, one of the most important being political and economic instability (World Bank, 2008). The years 2007-2008, in particular, saw dramatic increases in world food prices, creating a global food crisis and causing political and economic instability and social unrest in both poor and developed nations. The global food prices increased by 83 per cent in 2008 alone (World Bank, 2008). Countries that had high food prices (such as Burkina Faso, Cameroon, Senegal, Mauritania, Cote d'Ivoire, Egypt and Morocco) experienced protests and riots between late 2007 and early 2008. Other countries that have experienced food riots include Mexico, Bolivia, Yemen, Uzbekistan, Bangladesh, Pakistan, Sri Lanka, and South Africa. Kenya experienced food price-related demonstrations on 26 November 2008[1] and on 31 May 2008 with protesters demanding that the government introduce food subsidies.[2] Fortunately, global and domestic food prices started declining in 2010 (World Bank, 2010a). Between January and May 2010, the World Bank food benchmark index declined by 7 per cent (World Bank, 2010b). Similar trends have also been recorded in Kenya, and food prices are likely to decline further if weather conditions improve.[3]

In an attempt to address the problem of high and rising food prices in the country, Kenya's Parliament passed (on 23 June 2010) a bill that proposes to control the prices of essential goods, including maize, rice, wheat, cooking oil, petrol, diesel and paraffin. The bill was rejected by the President through a memorandum to the Speaker of the National Assembly on 1 September 2010. Members of Parliament may decide to revise the bill and table it in the house within the stipulated 21 days or attempt to introduce direct price control in future. An analysis of the merits or otherwise of price control is thus timely.

There has been an interesting debate since Kenyan Parliament passed the bill, with commentaries for and against the move. In assessing the merit of the decision taken by the MPs, this study considers several questions:

[1] See http://www.nation.co.ke/News/-/1056/495464/-/tm4y41/-/index.html, accessed on 1/07/2010

[2] See http://ndn.nigeriadailynews.com/templates/?a=9391, accessed on 1/07/2010

[3] Note, however, that the latest weather forecast suggests that the country may suffer from drought (*La Nina*) beginning October-December 2010 season, and possibly extending to March-May 2011 season.

(i) Is there a problem to justify the decision taken by Parliament?

(ii) If there is a problem of prices of essential commodities rising faster than income, what are the most important causes of the problem?

(iii) Is price control the most cost-effective intervention to solve the problem? Will the price controller have adequate information to set prices at the optimal level? Is it possible to demonstrate that the prices set by the price controller have higher welfare impact than those the market (even with its imperfections) would have set? Have price controls worked in Kenya in the past? Have they worked elsewhere?

(iv) What alternatives to price control may achieve what the Members of Parliament are targeting?

The rest of the paper is organized as follows. The remainder of section one provides a brief overview of the *Essential Goods (Price Control) Bill 2009* and a comparison between growth in per capita income and growth in prices of some of the targeted commodities. Section two presents a brief discussion of the theoretical and historical basis of price controls, while section three outlines the possible benefits and demerits of price controls in Kenya. Section four provides a situational analysis of the targeted commodities, while the causes of high food prices in Kenya and alternative policy options are discussed in sections five and six, respectively.

1.1 Overview of the Essential Goods (Price Control) Bill 2009

The Price Control (Essential Goods) Bill 2009 seeks to establish an Act of Parliament to provide for the mandatory control of the prices of essential goods and for connected purposes by fixing the maximum retail and wholesale prices for *ten* goods, namely: maize, maize flour, wheat, wheat flour, rice, cooking fat (or oil), sugar, paraffin, diesel and petrol. According to the Bill, market forces of demand and supply have failed to lower prices of these goods and, therefore, it has become critical to control their prices in order to protect Kenyans from exploitative and unscrupulous business persons. It is anticipated that if enacted, this Bill will help to mitigate the effects of the food shortage with which the country's ordinary citizens are grappling.

With regard to the scope of orders made under the proposed Act, the Minister of Finance may: (i) fix a maximum price or a maximum service charge for any area of Kenya that differs from the maximum price or maximum service charge fixed in respect of like or similar goods or services for another area or other areas; (ii) fix a maximum price for goods, which includes any charge made for any service,

whether a price controlled service or not, rendered in relation to the sale of those goods; (iii) fix a maximum service charge for any service, which includes any price or charge for the sale of goods, whether price-controlled goods or not, sold in connection with that service; and (iv) prescribe the type of packing, weight, size, quality, marking and the processing and ingredients of any such goods manufactured in Kenya.

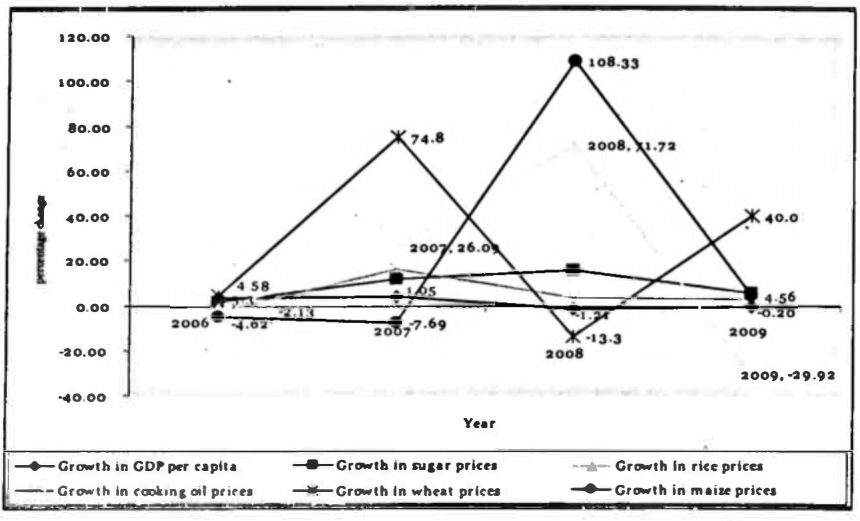
If the legislation is enacted, it will be an offence for a person to sell or to buy the essential goods at a price that exceeds the maximum price fixed for these goods. Penalties will include imprisonment for a term of five years or a fine of one million shillings, or both. The Minister of Finance is empowered to make regulations to enable better carrying out of the intent and purposes of this Act. It is anticipated that the enactment of the Bill shall not occasion additional expenditure of public funds. However, implementation and policing of the bill will definitely require allocation of public funds.

1.2 Price Increases of the Targeted Commodities Relative to Per Capita Income

If per capita income is rising at a higher rate than the prices of essential goods, then consumers will be cushioned from the high prices by the rise in income, no matter how high the prices rise. However, if prices rise at a higher rate than the growth in income, then there will be a problem because the purchasing power and welfare of consumers gets eroded year after year to the point that consumers are not able to afford the goods. Figure 1.1 compares the growth trends in income per capita and the growth in prices of some of the targeted commodities.

The figure shows that prices of maize, rice, and wheat have been very erratic over the last four years. Except in 2007 for maize, 2008 for wheat and 2009 for rice, prices for all the targeted commodities increased faster than income. Per capita income growth stagnated over the period, and actually declined between 2007 and 2009 from 4.05 per cent in 2007 to -0.20 per cent in 2009. Thus, as prices were rising from 2007 onwards, per capita income was shrinking, eroding the consumers' purchasing power and their welfare.

Figure 1.1: Increase in prices relative to per capita income, 2006-2009



2. Theoretical, Empirical and Historical Overview

2.1 Theoretical Underpinning of Free Market and Price Controls

Most economists advocate for free market determination of prices through the forces of demand and supply because the market is expected to efficiently allocate resources to all the productive sectors of the economy. Theoretically, if left alone, a market will naturally settle into equilibrium; that is, the price (denoted by p^* in Figures 2.1a and 2.1b) at which quantity of goods and services demanded equals to the quantities supplied. When the forces of demand and supply interact freely in a given market to bring equilibrium price and quantity, this market is called a *perfect* or free market.

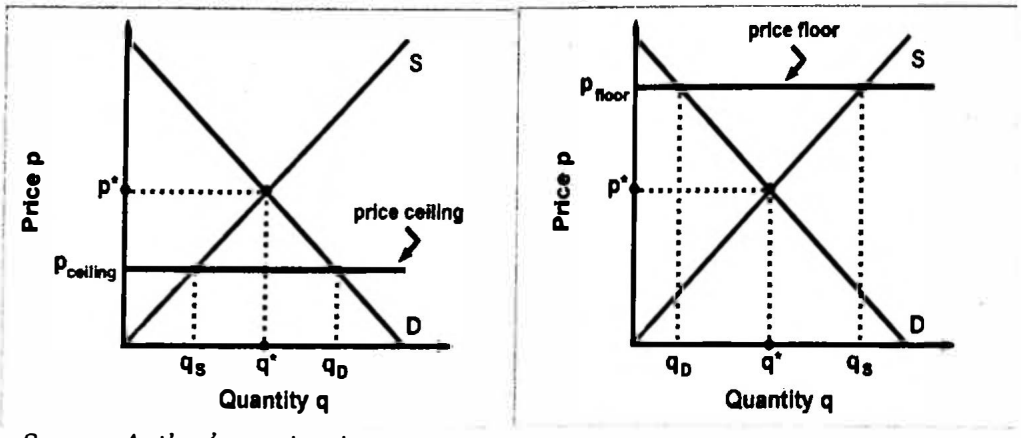
For a perfect market to exist, the following factors should be in place: the existence of an infinite number of buyers and sellers, so that no one buyer or seller can influence the price; all buyers and sellers must have perfect information about the market; there must be free entry and exit (no barriers to entry into the market like heavy capital requirements for initial investment); there must be no or negligible transaction costs (transport and other costs); the motive of the sellers must be profit maximization (that all sellers will sell at the point where their marginal costs equal the marginal revenue); all goods and services sold must be homogenous (no product differentiation); and that production takes place under constant returns to scale. A market that does not possess any of these characteristics is said to be *imperfect*.

In reality, there are hardly any markets that meet all the characteristics of perfectly competitive markets. There is therefore a general consensus that it is almost impossible for any market to be fully perfect (see for instance Stiglitz, 2004). Proponents of price controls have used this to argue that the prices we see are not free market prices, and most markets therefore may require some degree of control or regulation to push the prevailing prices towards the free market price, depending on the degree of market imperfections. Direct price controls have been used in two forms: price ceilings (as shown in Figure 2.1a), which is the setting of the maximum price that goods and services can be sold, and any price above the price ceiling will be illegal; and price floors (as shown in Figure 2.1b), which is the minimum price that sellers can charge. Any price below the price floor will therefore be illegal.

Price ceilings are lower than equilibrium prices and, therefore, more buyers will be willing to buy at that price. They will be willing to buy q_D as shown in Figure 2.1a, while the sellers will only be willing to supply an amount q_S that is lower

Figure 2.1: Price ceiling and price floors

(a): Price ceiling (maximum prices) (b): Price floor (minimum prices)



Source: Author's construct

than the quantity they would have supplied without the price control (equilibrium quantity) q^*. This leads to shortages in the market equivalent to the distance between q_D and q_S, which will eventually lead to queuing (first come first served), hoarding and selling of the good/service in black markets, and other problems.

Price floors, on the other hand, are higher than the equilibrium prices as shown in Figure 2.1b and lead to surpluses of the good/service in the market, since sellers will be willing to sell more at the higher price but buyers will be willing to buy less of the good/service at those prices. Minimum wages are an example of a price floor put in place by the government to ensure workers are paid wages that are no less than the prescribed minimum wages (wage rate is the price for human labour). Price floors lead to reduced demand, and in the case of the labour market, it leads to reduced demand for labour, leading to unemployment.

Price controls have been theoretically justified in situations of market failure, and for welfare optimization.

2.1.1 Situations of market failures

Price controls have traditionally been advocated for in situations when there is only one producer/seller in the market (monopoly) and the producer/seller determines the price at which they sell the good. Controls have also been recommended when there are just a few producers/sellers in the market (oligopoly) and the oligopolists either determine the prices (Bertrand competition) through the leader-follower model and let the quantity they supply to the market be determined by the chosen

price, or they determine quantity (Cournot competition) and let the price be determined by the chosen quantity. Other market situations where price controls have been advocated include monopsonistic competition, in which there are many sellers producing highly differentiated goods; monopsony, where there is only one buyer of a good; oligopsony, where there is a small number of buyers in the market; and in the case of information asymmetry when one competitor has the advantage of more or better information.

The proposition that price control can increase output while lowering price in the case of market failures is at least as old as the first edition of Professor Pigou's Economics of Welfare (Pigou, 1932). Studies such as Bronfenbrenner (1947) have also found that price controls under imperfect competition results in increased market output.

2.1.2 Price controls for welfare optimization

Welfare economists argue that free market equilibrium prices sometimes may not be welfare optimizing and, therefore, price controls or at least some kind of price regulation may be necessary even when markets work perfectly well. When the demand and supply forces set prices of essential commodities at levels that are well above the reach of the majority of the people, then the government would be obliged to intervene in the market to protect the welfare of its citizens. For instance, when forces of demand and supply of labour set wage rates at levels where the labourers can barely live on the wages, there is a likelihood of industrial, economic and political instability as workers agitate for higher wages. The government would be obliged to intervene in such situations to establish wage floors. This, in essence, is the spirit of minimum wage rates imposed by most governments.

While Pigou (1932) and Bronfenbrenner (1947) findings support the argument that price controls may be welfare optimizing in the case where markets are not perfect, Chang (2002) finds that price ceiling can be harmful to social welfare even though it increases industry output and consumer surplus. No conclusive consensus, therefore, has been reached on the effects of price controls on society welfare.

2.1.3 Theoretical difficulties with price controls

Situations of market failure caused by factors such as barriers to entry that create monopolistic market structures can be mitigated with the right price control, at least in theory. The difficulty lies in the execution. As was mentioned earlier, almost all markets have some degree of imperfection. Due to lack of adequate

information, however, no entity is well informed enough to be able to exactly identify the imperfection, choose the correct price to rectify the situation, and then provide continuous and consistent adjustment and enforcement of the controls or interventions, whether direct price controls, quantity or administrative interventions. Haley (1950) points out that one critical information that the government would need in determining controlled prices would be costs of production. He notes that the accounting difficulties of determining costs of production are well known, and the price controllers would end up without a satisfactory price level even if competent accountants not susceptible to influence exerted by the interested parties could be readily obtained by government in the large numbers that would be required. Without the capacity or the ability to identify the source and magnitude of the imperfection, and worse still to determine the right prices to correct the imperfection, it is difficult for price controllers to set prices at the optimal level. Prices set by controllers may, therefore, end up being more distortionary than the imperfect market prices themselves, and may have more adverse welfare impact than those the market, even with its imperfections, would have set. The history of price controls in most countries, including Kenya, are full of cases where controls had to be abandoned because the controlled prices were not optimum, were not welfare optimizing or their execution and enforcement became a nightmare for the authorities.

2.2 Brief History of Price Controls in Kenya

2.2.1 Price controls era

Prominent forms of state intervention in the Kenyan economy before the early 1990s were price control and consumer subsidies. The use of price controls and consumer subsidies was seen as a form of social wage and as a mechanism of redistribution. It was seen as an expression of 'welfare economics', whereby the government sought to respond to demands from the masses for better living conditions. The policy of price control was entrenched into the economic system by the enactment of the Price Control Ordinance of 1956, renamed the Price Control Act of 1956 and revised in 1972. Under this Act, the prices of almost all goods were controlled under the General or the Specific Price Control Orders (GPCO and SPCO). This continued through the 1970s and early 1980s. Government control over the economy was implemented through steady expansion of controls on domestic prices, interest rates, foreign exchange controls, imports and exports. Some of these controls were introduced in response to a rapid succession of economic shocks that adversely affected Kenya's economic situation and prospects, including the capital flight witnessed in the country and the industrialization strategy adopted in the 1970s. In response to these challenges, the government

intensified import-substitution policies; tariffs increased and import licensing became more severe. In an effort to counter the foreign exchange crisis of 1982-1984, Kenya raised all tariffs by 10 per cent. By 1987, quantitative restrictions affected 40 per cent of all importable items.

In the 1980s, Kenyans had to walk long distances looking for maize, wheat and milk because price controls encouraged hoarding.

During the era of Structural Adjustment Programmes imposed by the World Bank, loans to Kenya were conditional on the government adopting more liberal trade and interest rate regimes, as well as a more outward-oriented industrial policy. Several trade liberalization documents were drawn and many of the quantitative import restrictions were replaced with tariffs, but these tariffs often remained prohibitively high.

2.2.2 Price decontrol period

The Sessional Paper No. 1 of 1986 on "Economic Management for Renewed Growth" articulated the need for a market-driven economy. The publication of the Sessional Paper resulted in a reduction of the number of goods controlled under both general and specific orders. The government introduced a competition law and the Restrictive Trade Practices, Monopolies and Price Control Act, Chapter 504 of the Laws of Kenya of 1988 (published in Kenya Gazette of Friday, 23 December 1988) and which came into force in 1989. According to the law, the government would rely less on instruments of direct control, and increasingly on competitive elements in the economy. Sections 35 to 38 of the statute gave power to the Minister of Finance to fix prices in respect of goods and services produced or provided by monopoly undertakings.

2.2.3 Liberalization period

Price controls were largely eliminated throughout the late 1980s and early 1990s. By 1994, all price controls had been eliminated. Kenyans could freely trade in foreign exchange; availability (or lack thereof) of foreign exchange no longer determined the quantity of imports. By 1995, even the wheat and oil markets that had been the strongest resistors were decontrolled. In December 1995, the Exchange Control Act was repealed to complete liberalization of the trade regime. Between 1996 and 1998, the government slowed down the reform effort but maintained liberalized trade and exchange regime, interest rates, and decontrol of domestic prices.

Although price controls were officially abandoned in 1994, the government still exercises price controls through agricultural marketing boards. In 2008, the government introduced a subsidy for agricultural inputs to ensure farmers can afford them. The government also announced two different prices for maize: one for the poor at Ksh 52/kg and the price of Ksh 72/kg for other consumers. The government would sell 'government branded maize meal' to the poor using a chain of government regulated retail outlets.

In February 2007, the government allowed the Communications Commission of Kenya (CCK) to cap the charges for mobile phone calls at Ksh 30 (US$ 0.39) per minute, following a complaint by Celtel that the market leader, Safaricom, was engaging in an 'unfair trade practice' by charging high tariffs for calls made to rival networks. At the same time, the CCK capped the interconnection rate between the two networks at Ksh 6.28 (US$ 0.080), down from Ksh 8.12 (US$ 0.104) per minute. On 1 July 2010, the CCK issued a new determination on interconnection tariffs for all fixed and mobile telecommunications services in the country, made under the Kenya Information and Communications Act of 1998 and the Kenya Information and Communications Regulations 2010. According to Interconnection Determination No. 2 of 2010, the Commission reduced mobile interconnection rates from the current Ksh 4.42 per minute to Ksh 2.21 (US$ 0.028), a 50 per cent drop. The rates will be progressively reduced by 35 per cent, 20 per cent and 15 per cent annually in 2011, 2012 and 2013, respectively, to stand at Ksh 0.87 (US$ 0.011) by 2014.[1]

2.3 Experiences of Other Countries with Price Controls

Not many countries have imposed direct price controls, especially in recent years. In this section, the experiences of a few African countries and India are reviewed.

Ghana's government introduced the "1962 Control of Prices Act" to impose price and quantitative restrictions on imports of 2,800 selected consumer products as an instrument of social policy. It was intended to protect the interests of the poor and reduce income inequality by preventing importers and local manufacturers from earning monopoly rents. The products covered included vehicle spare parts, tobacco, salt, tyres, flour, imported rice, sugar, sardines, corned beef, oats, soap, matches, evaporated milk, butter, margarine, tea, instant coffee, aluminium corrugated sheets, textiles, liquid gas, spirits, batteries and cement. However, Killick (1973) observes that the controls were largely ineffective, with the

[1] CCK: http://www.cck.go.ke/regulations/downloads/interconnection_determination_no2_2010.pdf; http://www.cck.go.ke/news/2010/news_16aug2010.html, accessed on 24/08/2010

controlled prices tending to rise nearly as fast as the actual prices. This resulted from periodic upward adjustment by controllers who were under pressure from larger trading companies to respond to changing local and international market conditions. Killick (1973) also notes that the price controls created shortages and avenues for corruption and other malpractices, with government price inspectors buying the commodities at controlled prices and selling at a premium. The controls were in general largely ignored, observed by few shops in rural and urban areas and were abandoned eventually in the early 1970s. The main problem was that the government sought to administer a complex price control scheme with limited information, staff and other implementation structures.

Other countries that have had direct price control measures with results similar to those experienced in Ghana include Zambia, Mauritius and Ivory Coast. The general lessons from Zambia, Ghana, Mauritania and Ivory Coast experiences with price controls were that the controls were not effectively enforced due to lack of adequate government capacity. Another observation is that price controls are normally observed by wholesalers and shopkeepers in urban areas, but largely evaded in the small local/rural markets, making them very ineffective and a total failure in their main objective to control prices for the most poor in the rural villages (Killick, 1973).

India introduced direct price controls on 354 drugs in 2006. This was meant to lower the price of drugs but reports indicate that this did not happen. *The Financial Express* of August 2006 reported that drugs that were under price control either vanished from the companies' list or were sub-contracted. Sustained reduction in prices by the regulator forced almost all players to exit production, leaving the government with no choice but to depend on expensive imports. Similarly, drugs related to dreaded diseases such as TB and Malaria were no longer being manufactured by established players. The report indicated that growth of counterfeits and increased seizures of sub-standard anti-TB products in India were a result of the controls. Following imposition of the price controls, the pharmaceutical sector in India now focuses on overseas growth and little attention is being paid to India-specific diseases. Observers, therefore, opine that if India is to become a global hub for drugs manufacturing and research, the government will need to induce competition, decontrol and monitor prices.[2] The controls, they argue, have miserably failed in achieving their intended objectives.

Their reviews show that in most of the countries where direct price controls have been tried as long-term measures to regulate prices, they have generally failed. With these experiences in their minds, several countries experiencing high

[2] See http://www.financialexpress.com/news/india-is-the-only-nation-to-adopt-cost-based-price-control-system/175543/ Accessed on 01/07/2010

prices of essential goods have opted for alternative ways of dealing with high prices, instead of direct price controls.

2.4 Response of Other Governments to the Recent Food Crisis

Several governments have come up with different strategies to deal with the recent global food price increases. The major rice exporters such as China, Brazil, India, Indonesia, Vietnam, Cambodia and Egypt have imposed strict export bans on rice. Several other nations, including Argentina, Ukraine, Russia, and Serbia either imposed high tariffs or blocked the export of wheat and other foodstuffs altogether. This intervention, even though it has cushioned the exporting countries from the price increases, has had the effect of reducing exports and increasing the global prices of those foodstuffs further. North Korea, on the other hand, is solely relying on food assistance to cope with food price increases.

The government of Burkina Faso, in response to riots caused by rising food prices in February 2008, promised to lower taxes on food and to release food stocks in its buffer stocks. It also removed customs duty on rice, salt, dairy-based products and baby foods; removed value added tax on durum wheat, baby foods, soap and edible oils; negotiated with wholesalers prices for sugar, oil and rice; released food stock; strengthened community grain banks; distributed food in-kind; reduced electricity cost, paid part of the utility bills for the poor; introduced special programmes for school and hospital feeding; and facilitated fertilizer distribution and production support. It also imposed a ban on exportation of cereals.[3]

In Cameroon, the government reached an agreement with retailers on the rate by which prices would be lowered in exchange for reduced import taxes. However, reports indicated that lifting of the import taxes did not lead to the expected reduction of food prices and, in some cases, the prices even increased.[4] On 24 April 2008, the Government of Cameroon announced a two-year emergency programme designed to double Cameroon's food production and achieve food self-sufficiency as a long term measure to deal with the rising food prices.[5]

In Panama, the government began buying rice at a high market price and selling it to the public at a lower subsidized price at food kiosks. According to

[3] Source: http://knol.google.com/k/sergey-polovinkin/food-crisis-and-food-security-policies/cju5lr97z6h4/32#, accessed on 30/06/2010

[4] http://www.irinnews.org/report.aspx?ReportID=77971, accessed on 30/10/2010

[5] http://www.irinnews.org/report.aspx?ReportID=77931, accessed on 30/10/2010

St Petersburg Times, the Russian government pressured retailers to freeze food prices before key elections for fear of a public backlash against the rising cost of food in October 2007. The freeze ended on 1 May 2008.[6]

From this brief review of how various countries responded to the escalation in food prices, it seems that no country has so far resorted to direct price controls, opting instead for indirect interventions. Kenya's National Economic and Social Council (NESC) has in the past discouraged price controls on the basis of the need to maintain a liberalized market. Attempts by the Energy Regulation Commission (ERC) to reign on oil cartels were halted under the advice of the Council.

[6] http://www.sptimes.ru/index.php?action_id=2&story_id=25957, accessed on 30/10/2010

3. Possible Benefits and Demerits of Price Controls in Kenya

3.1 Likely Benefits

The main reason why politicians worldwide advocate for price controls is that they gain favour with voters, at least for some time before the demerits become evident. In cases where there is real price distortion, price controls act as a short-term measure against consumer exploitation.

3.2 Likely Demerits

Price controls are associated with several demerits. First, they distort market forces of demand and supply, thereby leading to misallocation of resources, including labour and capital. The resources are moved out of the sector if it becomes non-profitable. Related to this are the problems of unemployment and loss of livelihoods due to closure of businesses, capital flight out of the country, discouragement of domestic and foreign investment in the controlled sectors, possibility of total shift from the production of those goods whose prices are controlled, reduced economic growth, congestion and development of queues in the retail stores, corruption in the implementation of the controls, and increased administration costs to the government.

Second, as a consequence of reduced profits, there is a possible reduction in quality of products whose prices are controlled as producers try to reduce production costs to recoup their profit margins.

Third, price controls may hurt local trade and may lead to the emergence of black markets. The producers and wholesalers, faced with the controls, may hoard goods in order to create artificial shortages and sell them in black markets. This may eventually hurt retail trade, with consumers as the eventual losers. In extreme cases and where price controls are maintained for long periods, these demerits can lead to civil strife.

Fourth, price controls would also violate international and regional trade treaties. Kenya is a signatory to several trade agreements, including the World Trade Organization (WTO), the Cotonou Partnership Agreement (CPA), the Common Market for Eastern and Southern Africa (COMESA) and the East Africa Community (EAC) Common Market protocol. The gradual reduction of tariffs and removal of non-trade barriers, including price controls are central to all the agreements. The core GATT articles such as Article II, III, XI and WTO agreements

such as Trade-Related Aspects of Intellectual Property Rights (TRIPS), for example, contain elements of competition policy that explicitly prohibit price controls. Generally, countries are discouraged from taking unilateral decisions or measures that may affect free flow of goods and services or create price distortions, unless such measures conform to the respective trade agreements or they are endorsed collectively by other member states. Article 55 of the Treaty establishing COMESA notes that anti-competitive practices may constitute an obstacle to the achievement of economic growth, trade liberalization and economic efficiency. Similarly, the EAC established a Competition Act (2006), whose main objective is to promote and protect fair competition for consumer welfare in the region. There exists similar commitment in the EU-ACP trade agreements. Price controls, therefore, will be against COMESA, EAC and EU-ACP agreements that Kenya is a signatory to, and may trigger retaliatory sanctions on Kenya's products from her trading partners.

Fifth, besides violating trade agreements, price controls would increase price disparities in consumer prices and encourage smuggling within the East African Customs territory and COMESA region.

4. Situational Analysis of the Targeted Commodities

This section analyses the magnitude of the price escalation problem with respect to the essential commodities targeted for price control in Kenya. For each of these commodities, consumption, production, trade, domestic and international price, and market structure (and conduct where possible) data are analyzed in an attempt to assess the magnitude of the price problem and diagnose the real causes of that problem.

4.1 Maize

4.1.1 Significance of the maize sector

Maize is a dominant staple food crop in Kenya and is, to a large extent, synonymous with food security in the country. It is also a primary source of calories for most urban and rural households, and accounts for the highest proportion of food budget (Ariga *et al.*, 2010; Jayne *et al.*, 2005).

Maize consumption in the country is estimated at 98 kilogrammes per person per year (Ministry of Agriculture and KARI, 2009). About 90 per cent of Kenya's population depends on maize as an income-generating commodity. It is also the most common grain grown by rural poor households. According to the Ministry of Agriculture, maize consumption in Kenya is currently estimated at around 38 million bags per year. Furthermore, between 2004 and 2007, Kenya devoted approximately 32 per cent of its arable land to maize, which is a clear indication of its importance (FAO Stat, 2010). Most maize is consumed within the household and/or sold in Kenya as dry grain. Some portion of the maize produced is, however, consumed and/or sold as green maize. Maize grain is normally milled into maize meal (flour), the form in which most Kenyans consume the commodity. The shorter cooking time makes maize meal preferable to the grain.

4.1.2 Maize production and consumption

Maize is produced in almost all parts of the country, with small-scale producers accounting for more than two-thirds of total production (Ariga *et al.*, 2010). Production of maize is mainly done under natural conditions such as rain-fed agriculture. Hybrid maize is the most common type of maize grown by large-scale farmers, while local maize breed is grown largely by small-scale producers. As shown in Figure 4.1, maize production has been on a decline whereas consumption has been on the rise. Maize production ranged between 26 and 36 million bags per annum during the period 2004-2008. In 2005 and 2006, production was

greater than consumption. However, production has steadily declined since 2007, reaching a low of 27,142,000 bags in 2009 against a demand of 37,700,000 bags in the same period, leaving a deficit of 10,155,000 bags, which was filled by imports of 16,760,000 bags, thus creating a net surplus in the market of 6,202,000 bags.

4.1.3 Domestic and international maize price comparisons

Comparing maize prices in Kenya, EAC and the world reveals that for the period 2000- 2010, the prices in Kenya were generally higher (Figure 4.2).

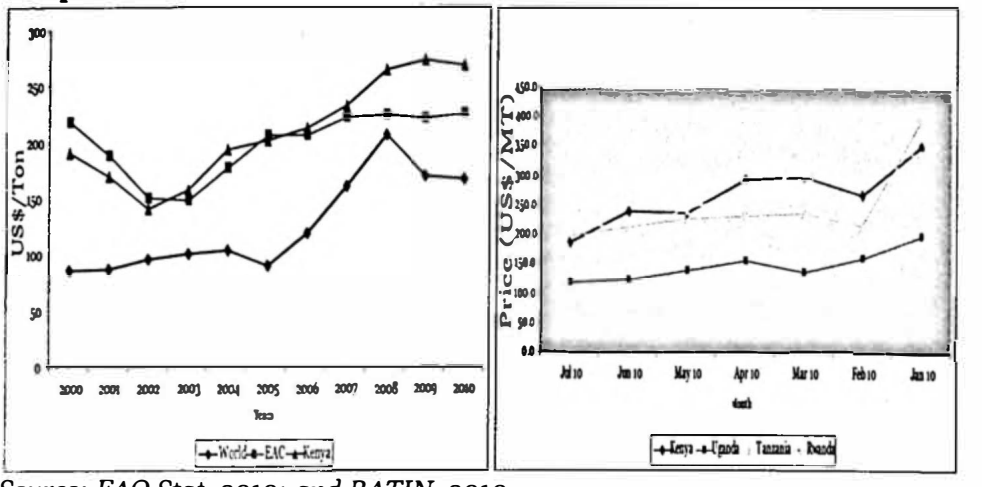
Throughout the period, maize price in Kenya has been higher than the world price and when the world price was declining between 2008 and 2010, Kenyan prices were on the rise. A comparison of Kenya's maize price with the EAC average price reveals that in 2007, both prices were almost at par, but that of EAC stabilized between 2007 and 2010 while the prices in Kenya continued to increase.

In most cases, market forces set maize grain prices but on several instances, the government intervenes by setting prices at which the National Cereals and Produce Board (NCPB) buys the maize from farmers. This in return influences the maize price offered by other private players in the maize market.

Figure 4.1: Maize production and consumption in Kenya, 2004-2009

Source: Economic Review of Agriculture, Ministry of Agriculture, 2010; and Kenya National Bureau of Statistics, 2010

Figure 4.2: Selected international and regional maize price comparisons



Source: FAO Stat, 2010; and RATIN, 2010

4.1.4 Maize imports and tariff rates

Over the years, maize production has fallen short of consumption, making the country a net importer. Most of the maize imported to fill this gap comes from the EAC and COMESA region. Under the EAC and COMESA trade regimes, maize is considered a 'sensitive product' and should attract a 50 per cent import duty according to the EAC Customs Union Common External Tariff. However, the duty rates are reviewed with a view to addressing adverse liberalization impacts, particularly on livelihoods, employment and food security. There has been a duty waiver on maize imports since 2009 following serious maize shortfalls and soaring food prices. The duty reductions and waivers are intended to increase supply and subsequently reduce consumer prices. Lack of a uniform tariff among the EAC member states has, therefore, encouraged informal and illegal maize trade in the region due to the price differences.

4.1.5 Market structure

Maize is both a subsistence and commercial crop, grown on an estimated 1.8 million hectares by large-scale farmers and smallholders. More than two-thirds of the maize produced comes from small-scale producers, each with less than two hectares (Odame *et al.*, 2008). The other portion is produced by approximately 1,000 large-scale farmers who own large tracks of land mainly in Trans Nzoia and Uasin Gishu districts of Rift Valley (Ministry of Agriculture, 2010). Maize traders

can be classified as small, medium and large-scale depending on the volumes of grain they handle, and they generally combine wholesale and retail functions (Ministry of Agriculture and KARI, 2009). While small-scale traders concentrate their operations in specific geographical areas, medium scale traders sell to NCPB and millers depending on the price offered. Farmers sell maize directly to consumers, the middlemen or NCPB.

The structure of the maize market is characterized by various actors, including farmers, transporters, traders and government institutions. Government institutions include the National Cereals and Produce Board (NCPB), farmer groups, the East African Grain Council (EAGC) and the Kenya Agricultural Commodity Exchange (KACE). The NCPB and Bulk Grain Handling Ltd (BGHL), based at the port of Mombasa, are in charge of bulk storage of maize, with NCPB handling domestic production and BGHL handling all imported maize (Ministry of Agriculture and KARI, 2009). NCPB has a capacity to hold 1.8 million metric tonnes through its 110 depots and silos distributed in various parts of the country. Given this storage capacity, there has been limited scope for private investment in bulk storage. In fact, the NCPB is the price setter in the near monopolistic maize market in Kenya. Over the last 10 years, BGHL is the only licensed provider of bulk storage for imported maize.

Below the bulk storage players are the millers. The NCPB Act Cap 338 empowers the government to restrict who the NCPB can sell maize to during times of shortage and to use variable import duties. Such regulations do not provide equal opportunities to all market players in the maize trade. There is free entry and exit by various milling firms in both urban and rural areas, but majority of them are confined to the major towns. There are about 103 large and small-scale millers with a total daily capacity of 7,385 tonnes. However, the largest 4 firms control over 50 per cent of milling in the country as follows: Mombasa Maize Millers (21%), Pembe Group (12%), Premier (11%) and Unga Ltd (8%) (Institute of Economic Affairs, 2010). Mombasa Maize Millers is arguably the price leader in this oligopolistic market, with other firms acting as price followers (Owuor, 2009). It is the country's largest miller and dominates the grain business, being the largest buyer of local maize, owner of the largest milling plants in the country, and proprietor of the biggest distributorship of maize meal (Africog, 2009). Apparently, the existing procurement system at the NCPB appears to favour the large-scale millers and specific individuals with vested interests in grain trading in Kenya (Odame *et al.*, 2008; and Owuor, 2009).

Finally, there are the wholesalers and retailers who distribute the commodity to final consumers. Maize traders can be classified as small, medium and large scale depending on the volumes of grain they handle, and they generally combine

wholesale and retail functions (Ministry of Agriculture and KARI, 2009). While small-scale traders concentrate their operations in specific geographical areas, medium scale traders sell to NCPB and millers depending on the price offered. Farmers sell maize directly to consumers, the middlemen or NCPB.

4.1.6 Sector constraints

Several constraints pull back the development of the maize sector in Kenya. First is the increased competition for land use. Land committed to maize has been declining because of competition from alternative crops that have higher output per unit area, such as horticulture. The second constraint is increased cost of production. Costs of production, especially farm inputs, are high. In Uasin Gishu District, for instance, fertilizer cost constitutes 24-30 per cent of total cost for small scale farmers, and up to 40 per cent for the large scale farmers who have additional mechanization costs. Third, seasonality of maize production and trade has meant that price is low during the harvesting season and high during the rest of the year. During the harvesting period, the NCPB is unable to buy all the maize from the farmers, who are forced to sell to middlemen and brokers at lower prices, often at a loss. Fourth, the industry regulatory framework is weak. Thus, the maize market is characterized by uncompetitive practices in both milling and bulk storage. For instance, millers and the politicians involved in grain trading manipulate the market to ensure that they benefit from the existing anticompetitive market practices. Lastly, there is a lot of wastage in the maize industry, mainly attributed to poor harvesting, storage, and transportation practices. According to the food balance sheet (Kenya National Bureau of Statistics, 2010), 13.6 per cent of domestic maize supply went to waste in 2006. This rose to 21 per cent in 2007 before falling to 11 per cent in 2008 and 8.4 per cent in 2009.

4.1.7 Policy recommendations

It is evident that price control will not address the weaknesses of the maize sector. It will worsen the situation by hurting farmers who are already facing high costs of production. With regard to production, there is need to improve maize productivity by growing higher yielding varieties and using inputs properly. In addition, irrigation is critical through provision of irrigation water to smallholder farmers.

Bulk storage should be liberalized to create an environment for efficiency, although care should be taken to avoid vertical integration by millers.

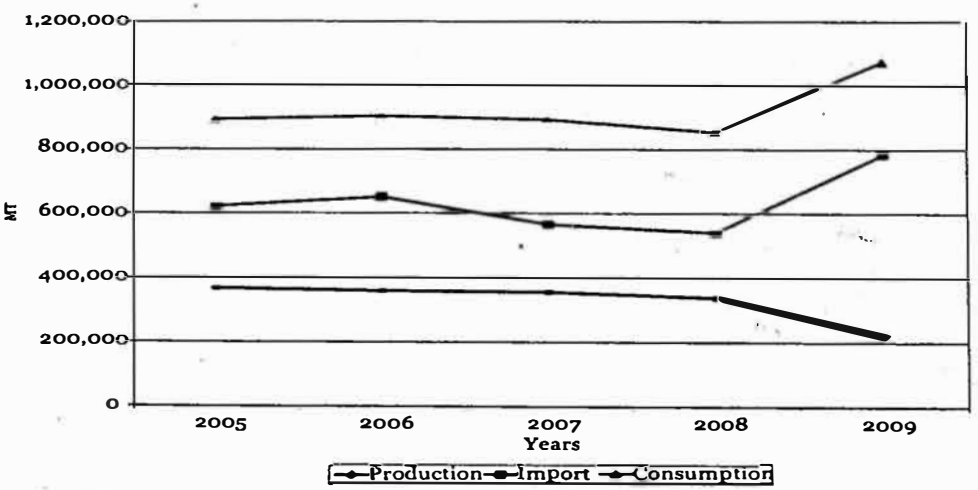
The NCPB Act, Cap 338, should be repealed to reduce the powers that are vested on the Board. The Act allows the Board to engage in commercial activities like any other private player in the industry and, at the same time, carry out on behalf of the government certain social duties, including procuring and managing the Strategic Grain Reserve (SGR) and emergency relief aid stock. The Board is supposed to stabilize grain prices and guarantee sufficiency of the grain stock in the country. However, NCPB's procedures for procuring and marketing maize are not transparent.

4.2 Wheat

Wheat is Kenya's second most important cereal crop after maize in terms of volume and value. Wheat production has declined considerably from 4.1 million bags in 2005 to 1.3 million bags in 2009, with price per bag increasing from Ksh 1,639 in 2005 to Ksh 3,571 in 2009 and consumption increasing from 893,120 bags in 2005 to 1,072,000 bags in 2009. The imports of wheat increased from 621,800 tonnes in 2005 to 781,700 tonnes in 2009 (Figure 4.3).

Large-scale farms dominate wheat production, with a share of 75 per cent of the wheat area and 83 per cent of production. The country has a well-developed milling and manufacturing industry for wheat products relative to other countries within the region. The demand for wheat in Kenya is thus enhanced by the export of wheat products within the Common Market for Eastern and Southern Africa (COMESA) region (Nyangito *et al.*, 2002). However, the country faces competition

Figure 4.3: Wheat production, consumption and imports, 2005-2009



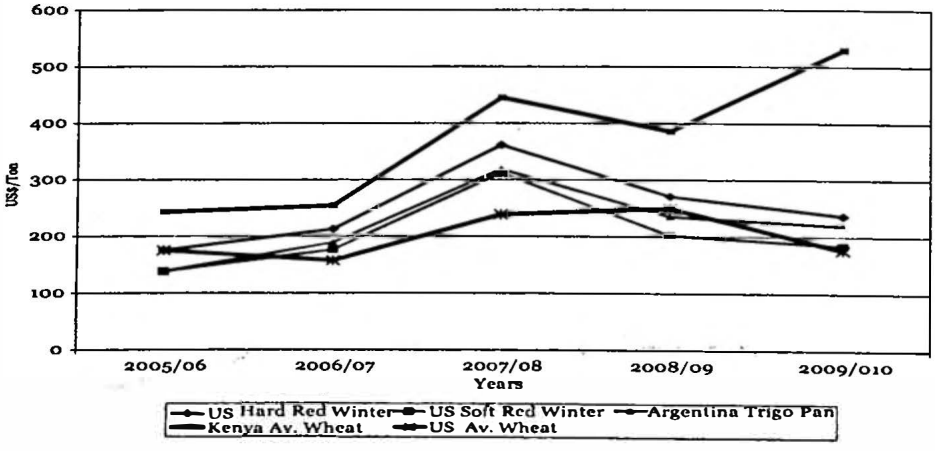
Source: Ministry of Agriculture, 2010

from Egypt, a COMESA partner, as evidenced by declining exports and domestic production, and increasing imports of wheat products.

4.2.1 Domestic and international wheat price comparisons

The global wheat production forecast for 2009/10 is 183 million tonnes, with most of the anticipated increase in wheat stocks expected in China, Kazakhstan, Ukraine and the United States. Total inventories held by other major exporters are forecast to reach 52 million tonnes. The anticipated higher supply of wheat will result in declining world wheat prices as shown in Figure 4.4. The price of Kenyan wheat has been higher than the international price because of the protectionist policies the government put in place to protect Kenyan millers who face unfair competition from duty-free wheat flour and other wheat products from other COMESA trading partners. The recent events in Russia, which supplies 8 per cent of the world's wheat, have raised concern about the current and future prices of wheat and wheat-based products. According to studies done by the International Food Policy Research Institute (IFPRI), there will be no significant change in the prices due to availability of supply from other major producers. Generally, a one per cent increase in the international price of wheat translates to a 0.20 per cent increase in the growth rate of the domestic price of bread. For certain countries in Asia, these transmission effects fluctuate between 0.11 and 0.74.

Figure 4.4: Selected international prices for wheat, 2005-2009



Sources: International Grain Council and USDA, and Ministry of Agriculture, 2010

4.2.2 Wheat pricing in Kenya

Kenyan farmers benefited from a guaranteed pricing structure negotiated between the government, the Cereal Millers Association and Cereal Growers Association to give priority for purchase of all domestic produce during the implementation of the COMESA safeguards, i.e. between 2000 and 2008. This agreement has since expired and the associations and the government need to establish an equilibrium price that will favour both the farmers and be agreeable to the Customs Union protocol for East Africa. The main causes of high wheat prices in Kenya include high cost of infrastructure (electricity, water, fuel and transport); high cost and lack of research, extension and credit facilities; poor marketing and storage facilities; and protectionist policies on wheat imports, leading to inefficiencies in wheat production.

4.2.3 Trade issues concerning wheat

Being one of the essential goods categorized as sensitive products under the COMESA and EAC trade regimes, wheat production in Kenya has enjoyed a relatively long period of protection from external competition. Under the EAC Customs Union, wheat is one of the products considered to have potential for domestic production and is therefore protected from imports. The EAC CET duty rates for wheat grains and wheat flour are 35 per cent and 60 per cent, respectively. However, during the recent review, a remission was granted on import duty on wheat grain (hard wheat and other wheat and meslin) from 35 per cent to 10 per cent for Kenya, Tanzania and Uganda for a period of one year. Besides, Rwanda and Burundi were granted stay of application of the CET and allowed to apply an import duty rate of 35 per cent on imported wheat flour. Generally, the current pricing structure benefits Kenya relative to the other East African countries (Uganda and Tanzania), which do not have potential to produce wheat and would prefer lower than 10 per cent import tariffs because they rely heavily on wheat and wheat flour imports.

4.2.4 Policy recommendations

To increase domestic production of wheat and thus reduce its price, what is required are targeted subsidies to increase productivity; investment in research especially on seed production and pest control (wheat rust); and reduction of taxes levied on fuel since both small and large-scale systems are highly mechanized. Mechanization alone accounts for about 40 per cent of the total non-labour costs. The country could borrow a leaf from Egypt, which has liberalized the input

markets for wheat, and grows wheat varieties that are both higher yielding and resistant to heat and pests. As a result, the quantity of domestic wheat production has been steadily increasing, and this has led to more stable and integrated markets and lower retail prices for wheat.

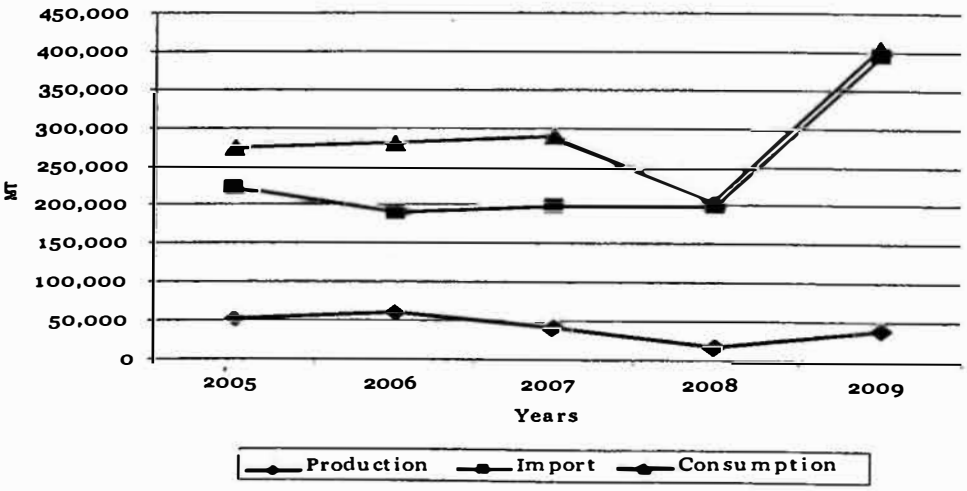
4.3 Rice

About 400,000 metric tonnes of rice are consumed in Kenya annually. Only about 12.5 per cent of this is met from local production, with the rest being imported. About 80 per cent of the rice grown in Kenya is from irrigation schemes established by the government, while the remaining 20 per cent is produced under rain-fed conditions. Rice is mainly produced by small-scale farmers in Central (Mwea), Western (Bunyala), Coast (Tana Delta, Msambweni) and Nyanza (Ahero, West Kano, Migori and Kuria) provinces. Production increased from 21,881 metric tonnes in 2008 to 42,202 metric tonnes in 2009, with the area under the crop increasing by 30 per cent to reach 21,829 hectares over the same period. However, the average yield declined from 72.70 bags/ha in 2005 to 38.7 bags/ha in 2009 due to various factors, including high cost of production, likelihood of loss of genetic vigor due to use of the same varieties for many years, and poor extension support and management at the Mwea Irrigation Scheme.

Consumption of rice has continued to increase with increase in population, which has necessitated increase in imports (Figure 4.5).

The outlook for global rice production indicates that 2009/2010 global paddy production will decrease to 672 million tonnes (450.8 million tonnes, milled)

Figure 4.5: Rice production, consumption and imports 2005-2009



Source: Ministry of Agriculture, 2010

from 688 million tonnes (459.6 million tonnes, milled) harvested in 2008/09. On the other hand, consumption is projected to increase from 446.3 million tonnes to 454.9 million tonnes over the same period.

4.3.1 Market structure

There are several rice traders, including the government-owned National Cereals and Produce Board (NCPB), National Irrigation Board (NIB) and Lake Basin Development Authority (LBDA). They process and supply milled rice to supermarkets and local retailers. The National Irrigation Board, Mwea Farmers' Multipurpose Cooperative Society, Capwell Industries and several private millers around Mwea contribute over 80 per cent of the rice sold in the country. Other dominant players include the Lake Basin Development Authority (LBDA) and the Dominion Farms.

There are four major rice mills spread across the country, with varying capacities. The Lake Basin Development Authority (LBDA) has a milling capacity of 3.5 metric tonnes/hour, Mwea National Irrigation Board (NIB) 24 metric tonnes/hour, Western Kenya Rice mills 3 metric tonnes/hour and Tana Delta with 3 metric tonnes/hour. The capacities of all the mills are under-utilized because of inadequate rice production. Paddy production from Ahero and Bunyala irrigation schemes has recently increased, courtesy of the economic stimulus programme implemented by the government. The declining yields in Mwea can be attributed to the change in management of the scheme from the National Irrigation Board (NIB) to the Mwea Farmers' Multipurpose Cooperative Society.

4.3.2 Domestic and international price comparisons

Up to 2007, the price of locally produced rice was higher than those of other internationally traded rice types (Figure 4.6). However, the price has since fallen to a more competitive level of about 700 US$/tonne. The price of Pakistan rice, which Kenya imports, has increased gradually from 470 US$/tonne in 2005 to a peak of 1077 US$/tonne in 2008.

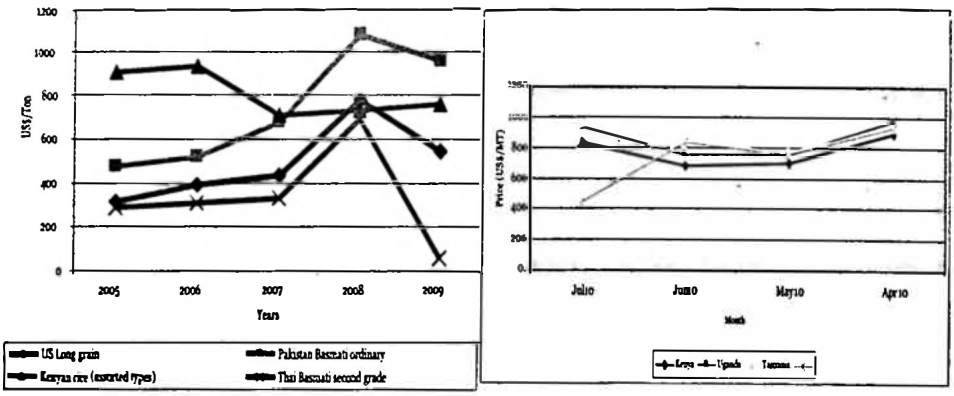
The main reasons for inadequate local rice production and high rice prices in Kenya include high costs of farm inputs and machinery; poor infrastructure such as roads, dams, irrigation and drainage; high cost of electricity and communication; liberalization of rice irrigation schemes resulting in poor rice management practices; inadequate research and extension services; and a weak land tenure system in the rice growing schemes, which hinders access to credit.

Table 4.1: Paddy yields from the irrigation schemes

Irrigation scheme	Paddy yields (tonnes)			
	2005/06	2006/07	2007/08	2008/09
Mwea	57,422	51,458	38,560	32,406
Ahero	3,779	851	n/a	2,939
Bunyala	1,010	682	567	1,161
West Kano	774	124	938	692
Total	62,985	53,115	40,065	37,198

Source: Kenya National Bureau of Statistics, 2010

Figure 4.6: International and regional rice price comparisons



Source: FAO Rice Market Monitor and Ministry of Agriculture, 2010

4.3.3 Tariff structure

Rice is also categorized as a sensitive product under the EAC Customs Union regime. Thus, under the CET 2007 version, it attracts an import duty of 75 per cent, basically to protect domestic producers from competition. During the recent CET review, the EAC Ministers of Finance reduced this to 35 per cent.

4.3.4 Policy recommendations

The main policy intervention required is targeted subsidies to increase productivity, and continuation of measures being taken to reduce the costs of farm inputs, cost of electricity and communication, and to improve infrastructure.

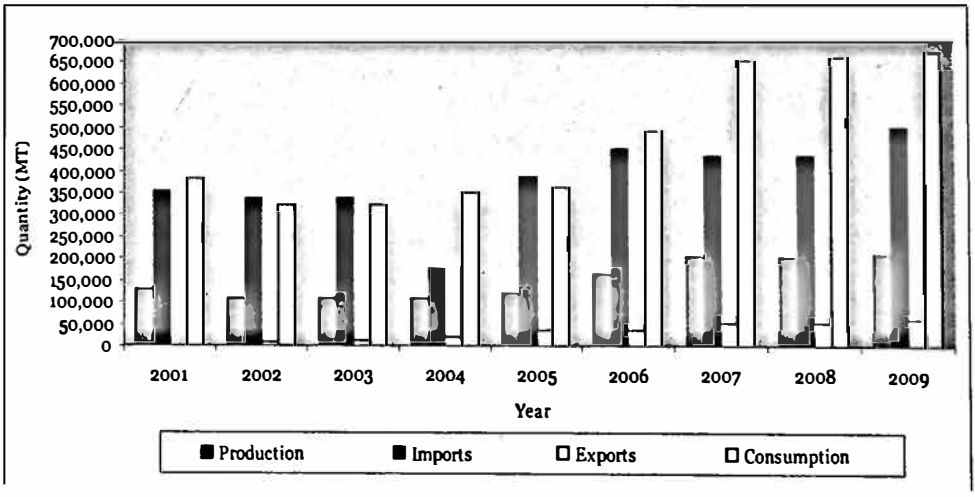
4.4 Cooking Oils/Fat

4.4.1 Edible oil production, consumption and trade

Vegetable oil is one of the key sub-sectors of Kenya's agriculture. The area under vegetable oil crops has remained fairly steady over the years, currently estimated at 116,000 hectares. Local production of oil crops is estimated at 120,000 metric tonnes, with the Lake Basin region contributing over 50 per cent. The range of oil crops produced in Kenya includes Coconut (56%), Cotton-seed (16%), Cashewnuts (11%), Groundnuts (10%), Sunflower (5%), and others (including soya-beans, castor, palm oil, sim-sim, grains, rapeseed, maize germ, and olives, 2%).[1] Cooking fats/oils available in the Kenyan market often utilize ingredients from one or more of the aforementioned oil crops, with soybean and palm oil being the leading inputs. Kenya's domestic production of edible fats and oils has grown from 127,000 metric tonnes in 2001 to around 210,000 metric tonnes in 2009, while consumption has almost doubled from an estimated 380,000 metric tonnes (in 2001) to 670,000 metric tonnes in 2009 (Figure 4.7).

Domestic production only caters for about one-third of the country's annual demand, with the deficit being fully covered by imports. The country's exports

Figure 4.7: Production, consumption and trade in edible fats and oils, 2001-2009



Sources: Ministry of Agriculture; Kenya National Bureau of Statistics, various Statistical Abstracts; Global Trade Atlas; and USDA estimates

[1] Export Processing Zones Authority, 2005; Vegetable Oil Industry in Kenya; http://www.epzakenya.com/UserFiles/File/kenyaVegetableOil.pdf

Table 4.2: Imports and prices of palm oil (1999-2007)

Year	Qty (Tonnes)	Value (US$ '000)	Value (Ksh. '000)	Average import cost (Ksh/kg)	Import Price (Cost + 25% duty)
1999	214,497	101,422	7,396,706.5	34.5	43.1
2000	216,418	81,544	6,363,693.8	29.4	36.8
2001	354,851	109,405	8,599,233.0	24.2	30.3
2002	336,686	147,612	11,376,456.8	33.8	42.3
2003	289,575	143,313	10,911,851.8	37.7	47.1
2004	169,227	90,328	7,316,568.0	43.2	54.0
2005	372,310	168,222	12,616,650.0	33.9	42.4
2006	450,788	216,116	15,344,236.0	34.0	42.5
2007	415,970	314,210	20,423,650.0	49.1	61.4

Sources: Average calculations made from FAOSTAT database–FAO Statistics Division, 2009/2010, http://faostat.fao.org/DesktopDefault.aspx?PageID=570#ancor

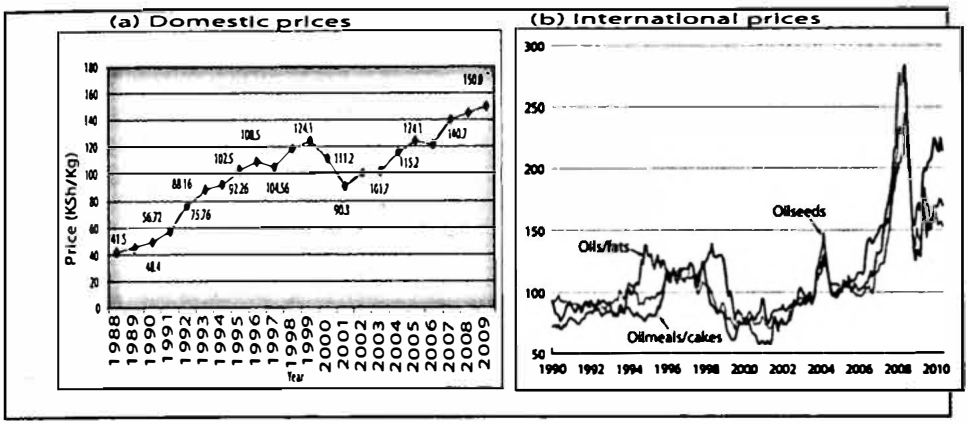
of vegetable oil have stagnated over the last five years at around 50,000 metric tonnes.[2]

Domestic price of cooking fat per kilogramme has increased by 50 per cent over the last eight years (Figure 4.8a). International prices of edible oils/fats have increased by more than 200 per cent over the same period (Figure 4.8b). With the exception of the 1999-2001 period, characterized by an international price shock, cooking fat prices have continued on an upward trend both in the period before 1994 (when price controls were implemented) and after 1994.

The trend of domestic price of cooking oil is similar to that of the cost of importing palm oil, the key input used in manufacture of edible oil (Table 4.2 and Figure 4.9), implying that domestic firms consider both costs of importing inputs and inflation trends in the country. Therefore, imposing a price ceiling on cooking fat/oil may force manufacturing firms to either cease production (since they may not cover their production costs), or resort to importing finished goods (i.e., processed and packaged cooking fats/oils) from the source markets in Asia and other countries with lower production costs, both of which would lead to loss of jobs.

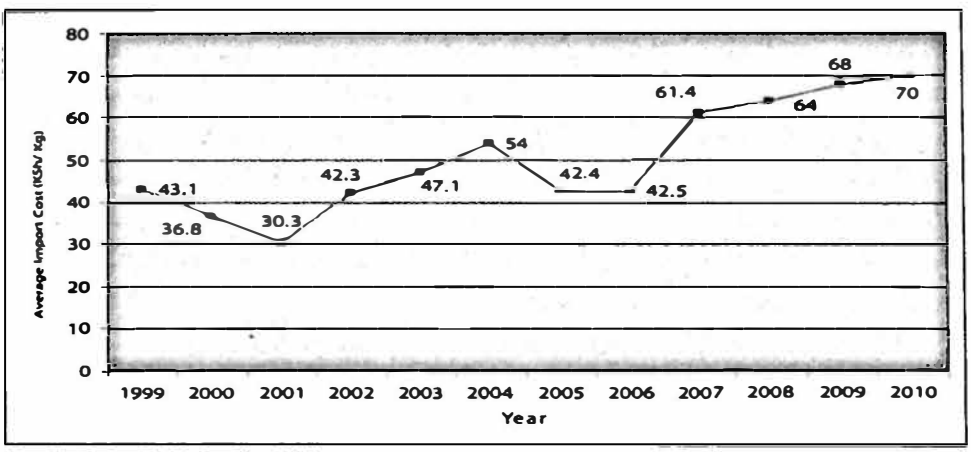
[2] USDA Foreign Agriculture Service, Q4-2009; Global Agricultural Network Report;http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vegetable%20Oil%20Sector%20_Nairobi_Kenya_6-22-2009.pdf

Figure 4.8: Average annual retail prices for cooking fat in Kenya, 1988-2009



Source: KNBS, Statistical Abstracts (various) and FAO, May 2010;http://www.fao.org/economic/est/commodity-markets-monitoring-and-outlook/oilcrops/en/

Figure 4.9: Average import costs for palm oil in Kenya, 1999-2010



Source: Calculations made from FAOSTAT database–FAO Statistics Division, 2009/2010, http://faostat.fao.org/DesktopDefault.aspx?PageID=570#ancor

4.4.2 Applicable tariff rates for cooking fat/oil

Kenya applies tariffs ranging from zero (0) for oilseeds and crude oils to 25 per cent for refined oils, an import declaration fee of 2.25 per cent on the CIF value, and a 16 per cent value added tax on imported edible oils. All the EAC countries apply a Common External Tariff (determined in 2007) of 25 per cent for vegetable fats

and oils and their fractions, and also for animal fats and oils and their fractions, while sunflower oils attract a tariff rate of 10 per cent.

4.4.3 Market structure

The key players in Kenya's vegetable oil industry comprise processors who extract the oil from the seeds and also produce oil cake for use in animal feeds, and refiners who convert crude oils into a form suitable for human consumption.[3]

Currently, about 30 Kenyan companies process edible oilseeds and/or oils. However, the market is dominated by five large companies, namely: Bidco Oil Refineries, Palmac Oil Refineries, Kapa Oil Refineries, Pwani Oil Products, and Unilever. Together, they crush and refine over 550,000 metric tonnes of oilseeds and crude oils per year (including importation of crude edible oil inputs for further processing) equivalent to 82.1 per cent of total domestic consumption in 2009. Bidco is the largest player, producing 26 brands in oils, fats and hygiene products and has a presence in 14 countries in East and Central Africa. The company crushes about 100 tonnes of oilseeds per day (TPD), refines another 800 tonnes of oils per day (about 292,000 metric tonnes/year), and extracts 100 TPD of solvents.[4] Estimating market shares by comparing firms' capacity and national consumption of 670,000 metric tonnes in 2009, Bidco supplies 43.6 per cent of total demand; Palmac, Kapa, Pwani and Unilever together caters for 38.5 per cent of demand; while 25 firms share 17.9 per cent of the market.

Unilever's former palm oil-based "Kimbo" brand (which was bought by Bidco Oil Refineries in 2002) and Kapa Oil refineries' "Kasuku" brands control 22.5 per cent and 23.5 per cent of market share, respectively. An estimated 74.6 per cent of consumers in the country are heavy fat users, according to the 2009 Consumer Insight survey on user intensity.[5] The demand for cooking fats is, therefore, higher than that of cooking oils, which are also relatively more expensive.

The edible oil processing and marketing sub-sector is oligopolistic in nature in that the five largest companies (representing 16.7% of all the industry players)

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[3] Export Processing Zones Authority, 2005; Vegetable Oil Industry in Kenya; http://www.epzakenya.com/UserFiles/File/kenyaVegetableOil.pdf

[4] USDA Foreign Agriculture Service, Q4-2009; Global Agricultural Network Report; http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Vegetable%20Oil%20Sector%20_Nairobi_Kenya_6-22-2009.pdf

[5] Source: Daily Nation, 14th December 2009; "Cooking Oils Market Gains More Weight"; http://www.nation.co.ke/magazines/smartcompany/-/1226/822406/-/r6fuoqz/-/index.html

supply over 80 per cent of the market needs. The investment is quite high and only strong brands can survive. Very few foreign brands have been able to penetrate the market.

4.4.4 Pricing and other constraints

Since the entire deficit in domestic production is fully covered by imports, the rise in retail prices in the cooking fat/oil industry is not as a result of shortage but several other factors, which include:

- Heavy reliance on imported inputs, such as palm oils mainly from Asia, which are prone to exchange rate fluctuations and international price shocks. The local capacity for production of oil crops is still under-developed.
- High and rising manufacturing costs such as electricity and water.
- Non-competitive practices that lead to price distortion.

One of the ways to reduce over-dependence on palm oil imports from Asia and the associated price volatilities is to expand Kenya's oil crops production from the current 116,000ha (of which less than 1% is under palm oil production). Bidco Uganda is creating a fully integrated edible oil business in Uganda. With an investment of over US$ 130 million spread over a period of five years, Bidco is creating the largest oil palm plantation in Africa, which will eventually cover over 40,000 hectares of plantation at Kalangala Island. The project involves planting over 5 million high oil bearing palm trees, and employing over 5,000 people. This will save the economy over US$ 60 million annually in imports of crude edible oil.[6] According to Export Processing Zones Authority (2005), FAO has been exploring opportunities for boosting production of palm oil in western Kenya through its programme on integrated farming systems in partnership with Mumias Sugar Company.

Apart from creating an enabling environment to cut down the cost of doing business in Kenya (including power costs) as an indirect price control, the government could provide tax incentives for edible oil processing companies to cut down their retail prices, such as through reduction in import duty for palm oil. However, this would be subject to EAC Common External Tariff ratification.

[6] Source: Bidco Oil Refineries, 2010; A fully integrated edible oil business in Uganda; http://www.bidco-oil.com/regional/index.php?conid=2

4.5 Sugar

4.5.1 Sector performance

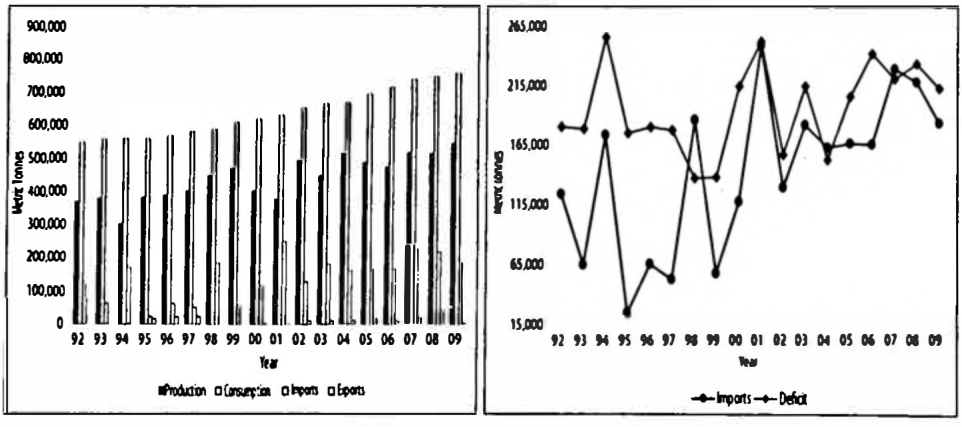
Total sugar production in Kenya was estimated at 548,207 metric tonnes in 2009 and 517,667 metric tonnes the previous year. However, the area under cane decreased by 9 per cent from 169,421 in 2008 to 154,298 hectares in 2009 (Kenya Sugar Board, 2010). In 2009, outgrower farms represented 89 per cent of the total area under cane, with the balance being under nuclear estates. The total national demand for Sugar was estimated at about 762,027 metric tonnes in 2009, implying that there was a deficit of 213,820 metric tonnes. To reduce the deficit, 184,531 metric tonnes were imported, leaving a net sugar shortage of 29,289 metric tonnes. Trends in sugar production, consumption, import and exports between 1992 and 2009 are shown in Figure 4.10.

Thus, domestic consumption of sugar far outstrips supply, and annual sugar imports are not adequate to fill the deficit, leaving a net shortage in the market. This shortage leads to high sugar prices in the country. Probable reasons why imports are not filling the deficit are either inability of the authorities to forecast demand well in advance, or a deliberate measure aimed at protecting domestic sugar producers.

4.5.2 Market structure

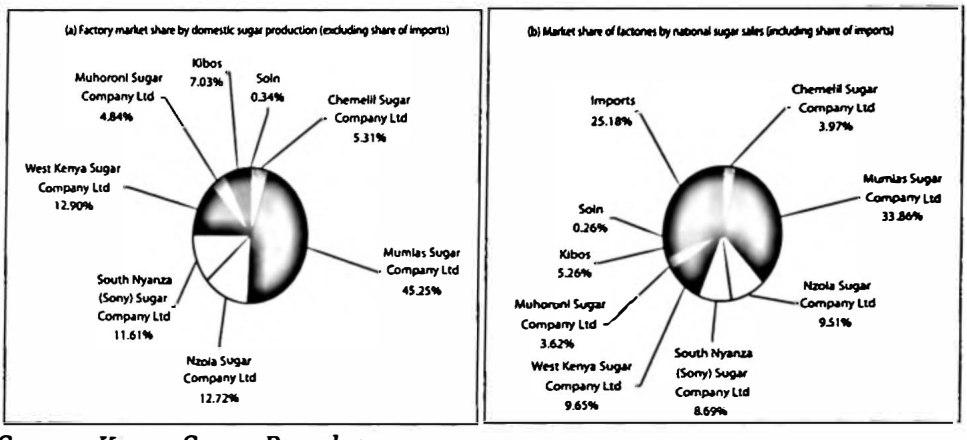
Figure 4.11 shows the market share of the sugar factories in Kenya, both by production and by national sales.

Figure 4.10: Sugar, production, consumption, imports and deficits



Source: Kenya Sugar Board, 2010

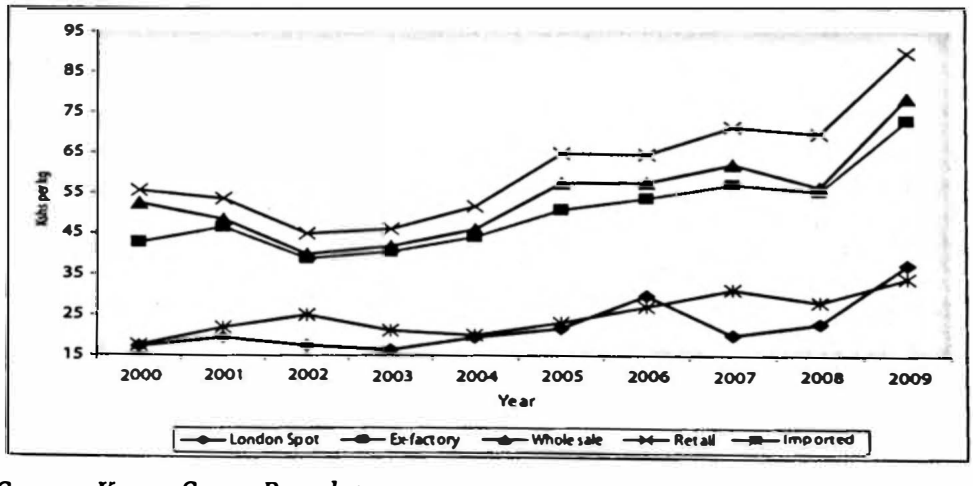
Figure 4.11: Market share by domestic production and by national sales



Source: Kenya Sugar Board, 2010

Mumias sugar factory accounts for 45 per cent of total domestic production. Out of the eight factories, 50 per cent of them control 92 per cent of the total domestic production. The largest two factories (Mumias and Nzoia) control 67 per cent of the total domestic production while the largest three factories (Mumias, Nzoia and West Kenya) control 80 per cent of the total domestic production. On the demand side, importers control 25 per cent of the total market demand, leaving Mumias factory with a total national demand share of 33 per cent, Nzoia (9%), West Kenya (9%), Sony (8%), Kibos (5%), Muhoroni (3%) and Soin (0.26%). In terms of national demand market, there is no clear dominant player, since none controls more than 35 per cent of the market.

Figure 4.12: Domestic and international price comparisons



Source: Kenya Sugar Board, 2010

4.5.3 Domestic and international price comparisons

Figure 4.12 shows international sugar prices compared to the trend in domestic sugar prices.

Retail and wholesale sugar prices in Kenya are way above the international (London spot) prices and imported sugar prices (CIF Mombasa landed price). Retail prices are higher than imported sugar prices (CIF Mombasa) by as much as Ksh 55 per kilogramme (kg) and are higher than international prices by as much as Ksh 52 per kg. Sugar imports have increased steadily in the past few years, thereby significantly reducing the deficit between domestic production and national demand, but retail prices continue to rise. It therefore seems that increasing sugar imports to reduce the shortage has not helped to reduce sugar prices, because demand for sugar has remained above total supply.

4.5.4 Tariff structure

The Kenyan sugar industry is characterized by high cost of production and is under permanent threat of cheaper imports from lower cost producers, especially from COMESA region. Kenya has a safeguard clause against imports from COMESA countries–a maximum of 200,000 tonnes will be imported without duties. This safeguard expired in February 2008 but was extended by the COMESA Council till end of February 2012 under a number of conditions regarding restructuring of the sugar industry. The quota under the safeguard is to be enlarged and the tariff applied on import quantities above the quotas reduced in each successive year of application. The quota was put at 260,000 metric tonnes for the year 2009/10, with an import tariff of 70 per cent charged on imports above that quota in that year, 340,000 metric tonnes in the year 2011/12 with import tariff of 10 per cent charged on imports above that quota and zero tariff on imports with no quota by 1 March 2012. The main condition was that the government-owned factories would be privatized. The Privatization Commission is now in the process of privatizing the factories.

4.5.5 Challenges

The main challenges facing the sugar industry include inadequate regulation of sugar imports, high domestic cost of production (inputs and processing), and under-utilization of established processing capacity due to obsolete production techniques,[7] using over-mature cane that has low sucrose content due to delayed

[7] Technology being used has low sugar recovery rates and machines often break down due to poor maintenance.

harvesting, and low cane deliveries leading to frequent production stoppages as well as management inefficiencies leading to sub-optimal allocation of existing resources in production. These challenges lead to inability of sugar processing firms to break-even, which in turn discourages cane production because of delayed and low payments to farmers. Other constraints include the small plot sizes of the outgrowers, leading to long cane transport distances and more difficult mechanization; low cane yields as a result of poor cane varieties, with low sucrose and high fibre content; poor cane husbandry practices; weak outgrower organizations; a payment system for cane based on weight instead of sucrose; bad infrastructure conditions resulting in high transport costs; over-dependence on rain-fed production, which results in significant lowering of cane yields and delayed maturity during periods of drought; poor marketing; lack of finance for small scale investors in the milling industry; and poor management and weak institutional governance in the factories. Among these constraints, under-utilization of milling capacity requires special mention and attention.

There are 8 major sugar factories in Kenya, with a total installed crushing capacity of 25,490 tonnes of cane per day (TCD). Optimally, 10 tonnes of sugarcane should produce one tonne of sugar, implying that with a crushing capacity of 25,490 of cane per day, the eight factories at full capacity crushing for 300 days a year should crush approximately 7,764,000 tonnes of cane producing 776,400 tonnes of sugar annually. This would comfortably cater for the total national demand for sugar estimated at 762,027 metric tonnes in 2009. The low recovery (of sugar from sugarcane) estimated to stand at 9.78 per cent in 2009 can be attributed to extraction inefficiencies due to the use of inappropriate technologies by the milling factories, and low cane quality resulting from delayed harvesting. Under-utilization of capacity is also caused by delays in cane deliveries and availability. To increase output and thereby reduce prices, there is need to ensure full utilization of existing capacity by installing modern machinery, timely cane harvesting to avoid reduced sucrose content of the canes, and timely maintenance of machines to avoid frequent breakdowns as well as paying farmers in time to encourage them to increase production. De-politicizing of factory management would also help in installing professional ethos into factories, which would improve factory efficiency. Another way to improve efficiency would be to hasten the process of privatization of the sugar factories to inject new capital for investment in modern and more efficient machinery, as well as injecting new management.

From the diagnostics of the production and consumption of sugar and sector constraints, it is clear that the high prices of sugar are not as a result of imperfect markets, but due to supply constraints that have led to shortages in the market. Price controls in this case would only lead to more shortages and higher prices as the few who have sugar stocks will hoard to get even higher prices. Instead of

price controls, measures must be put in place to address the supply constraints, including efficiency of the sugar factories, and increase sugar production to take care of sugar deficits.

4.6 Petrol, Diesel and Paraffin

4.6.1 Sector performance

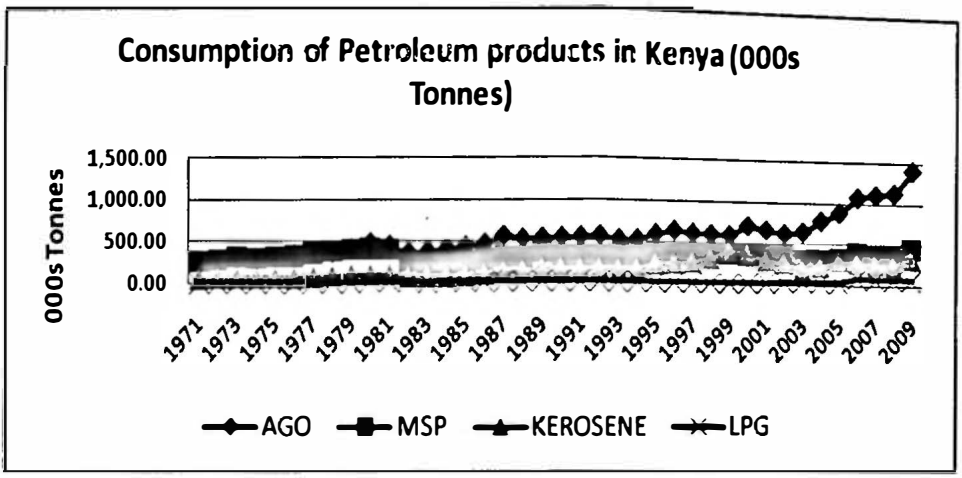
Petroleum is one of the most important sub sectors in the energy sector in Kenya, accounting for about 21 per cent of total energy consumption. The country relies entirely on importation of crude petroleum and white products from oil producing nations. The other important sources of energy are combustible renewable energy (fuelwood, charcoal and material residues), electricity and other renewable energy sources such as solar and wind. Petroleum products are mainly consumed in transport and power generation as well as in lubrication. The main products are automotive gas oil, popularly known as diesel and motor spirit super (gasoline), which are used in transportation, and Kerosene and Liquefied Petroleum Gas (LPG) mainly for lighting and cooking. Kerosene is one of the fuels that provide energy requirements to a majority of households in the country, and particularly the poor who cannot afford cleaner energy sources such as electricity and LPG.

The institutional structure of the petroleum industry in Kenya comprises the Ministry of Energy, the Energy Regulation Commission (ERC), Kenya Pipeline Company (KPC), Kenya Petroleum Refineries (KPRL), multinational oil marketing companies, one state oil company–the National Oil Corporation of Kenya (NOCK)[8], independent petroleum dealers, and the Petroleum Institute of East Africa, which draws its membership from a majority of petroleum industry players in the country. The Ministry of Energy provides the policy leadership while the new Energy Act No. 12 of 2006 mandates the ERC to provide regulatory stewardship of the sub-sector.

The petroleum sub-sector was liberalized in 1994 and the market system has prevailed since then. The Price Control Bill 2009 proposes to control prices for paraffin/kerosene, diesel and gasoline as their increase hurts the poor. The

[8] The National Oil Corporation of Kenya Limited was incorporated in 1981 under the Companies Act (Cap 486). The company's main objective then was to coordinate oil exploration (upstream) activities. In 1988 the company was mandated on behalf of the government to supply 30 per cent of the country's crude oil requirements that would in turn be sold to oil marketing companies for refining and onward sale to consumers. However, after de-regulation of the oil industry in 1994, the company lost that mandate, and had to formulate new survival strategies that saw it's entry into downstream operations. That mandate has recently been re-assigned to NOCK.

Figure 4.13: Consumption of petroleum products in Kenya (000' tonnes)



Source: Computation from Kenya National Bureau of Statistics data (various)

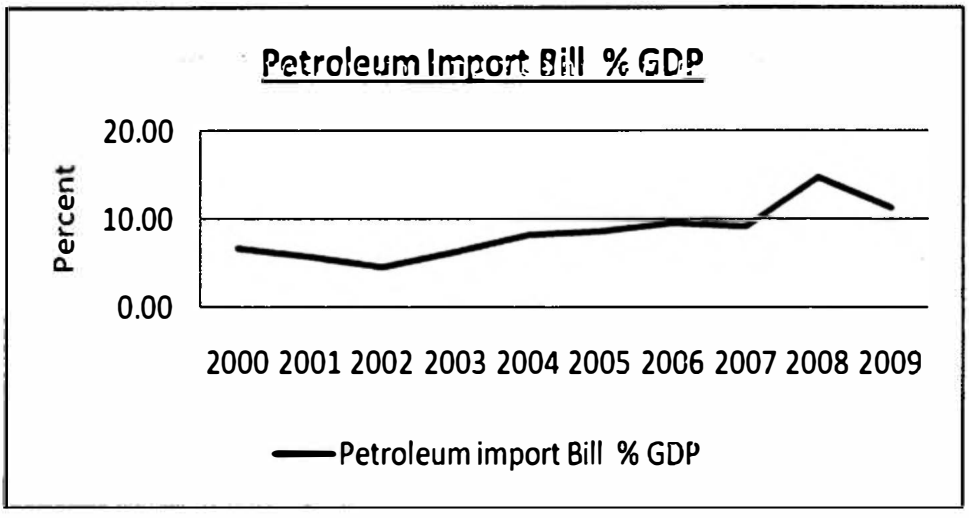
consumption patterns of the petroleum products targeted for price control are shown in Figure 4.13.

Consumption of Motor Spirit Premium (MSP), Automotive Gas Oil (AGO), Kerosene and Liquefied Petroleum Gas (LPG) have been increasing since the 1970s. In 2009, AGO consumption increased from 1,141.1 thousand tonnes to 1,416.10 thousand tonnes. MSP consumption stood at 461.70 thousand tonnes in 2009 up from 381.30 thousand tonnes in 2008, while consumption of Kerosene increased from 244.70 thousand tonnes in 2008 to 332.80 thousand tonnes in 2009. LPG consumption dropped in 2009 from 84.40 thousand tonnes in 2008 to stand at 74.60 thousand tonnes.

4.6.2 Petroleum imports and the import bill in Kenya

Since Kenya imports all its petroleum products, the import bill as a percentage of GDP has remained high. It has averaged above 6 per cent, apart from 2000-2002 when it declined to about 4.2 per cent (Figure 4.14). This was partly due to low demand as a result of poor economic performance. It recorded one of the highest levels of about 10 per cent of GDP in 2006 when the economy was doing very well, and about 14 per cent in 2008 before declining in 2009 due to the effects of the post-election violence and the global financial crisis.

Figure 4.14: Petroleum import bill as a percentage of GDP



Source: Computation from Kenya National Bureau of Statistics data, various issues

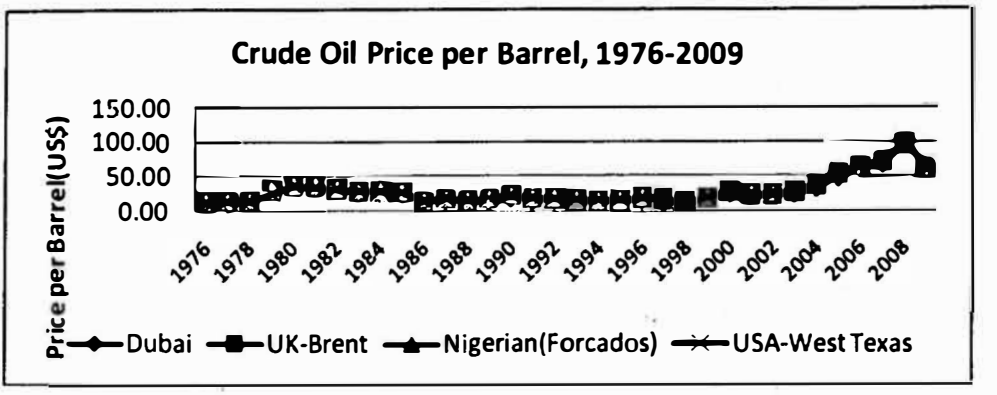
4.6.3 Market structure

In Kenya, crude oil is tendered through a competitive Open Tender System (OTS) and the most competitive bidder gets the opportunity to bring crude oil for the market. The crude oil is then refined at the Kenya Petroleum Refineries Limited (KPRL), which is co-owned by the Government of Kenya and marketers, while the finished products directly go to the Kipevu Oil Storage Facility (KOSF). Initially, 70 per cent of all oil products were imported in form of crude, while 30 per cent were imported directly as white products. However, the Minister of Energy increased the share of motor spirit imported to 50 per cent in February 2009 until the time the challenges experienced at KPRL are resolved.

The petroleum market structure in Kenya is characterized by huge investments in the downstream market, while the upstream market (which mainly involves exploration and prospecting) is small and dominated by the National Oil Corporation of Kenya and a few multinational companies that have secured specific contracts with the government.

The downstream market is still dominated by multinationals despite reforms that saw entry of independent dealers. In this market, oil marketing companies are involved in importation, exportation, wholesale, distribution and retailing of petroleum products. The multinational firms are usually vertically integrated, with a firm grip on the product supply chain from procurement, refining, storage and

Figure 4.15: Crude oil prices per barrel, 1976-2009



Source: Computations from International Energy Agency (IEA) data

distribution via company-owned or leased-out retail dispensing sites. As a result, the big marketers are able to dictate pricing terms in the market to some extent, given that the state-owned NOCK and independent petroleum dealers control a very small share of the market.

In March 2010, the top three companies had a total market share of 67.6 per cent (Total 31.1%, Kenol Kobil 18.7%, and Shell 17.8%).[9] The top six companies had a share of 89.4 per cent while the independent dealers controlled only about 10.6 per cent[10] of the market. NOCK's market share was a mere 4 per cent, and yet the government aims to stabilize market prices through the company. NOCK is currently engaged in both upstream petroleum exploration and downstream marketing activities. Since the enactment of the Energy Act 2006, the government has provided financial resources to the corporation for investing in retail network as a way of strengthening their market presence and improving competition in the sub-sector.

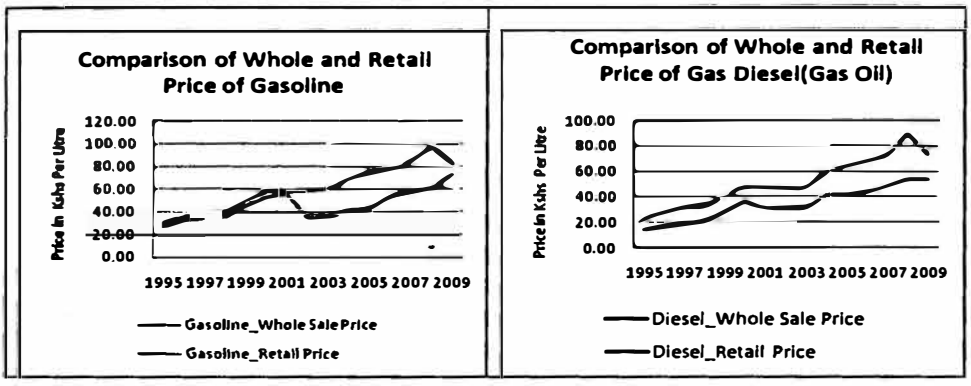
4.6.4 Domestic and international price comparisons

International crude oil prices have witnessed a considerable increase since 1976 (Figure 4.15), mainly due to political crises such as the Iraq and Iran war, and war in the Gulf region; supply cuts by the OPEC Nations; and increased demand in China and India. The Dubai, which is mainly referred to as the Murbun price, the Brent, Nigerian Forcados and the West Texas have experienced similar trends.

[9] Key players, ExxonMobil and Chevron, have recently exited the market and indications are that Shell is also likely to follow suit.

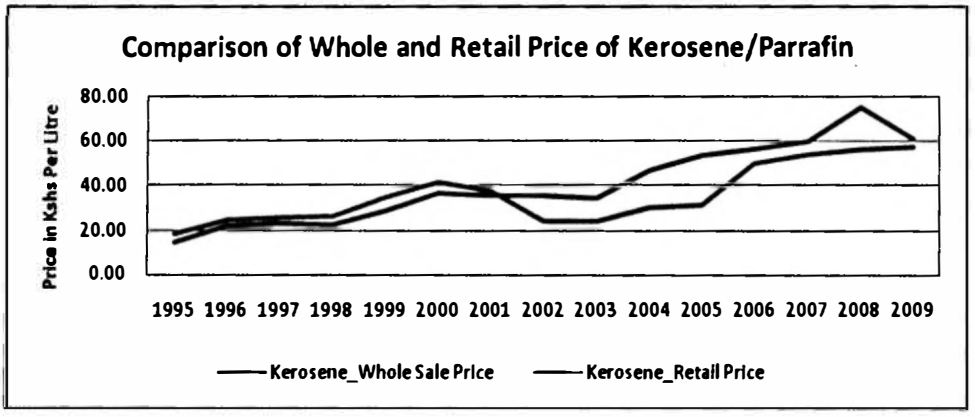
[10] Petroleum Institute of East Africa.

Figure 4.16: Gasoline and gas diesel wholesale and retail price comparisons



Source: Computations from Kenya National Bureau of Statistics data various)

Figure 4.17: Kerosene/paraffin wholesale and retail price comparisons



Source: Computation from Kenya National Bureau of Statistics data (various)

There were sharp increases in crude oil prices between 2002 and 2008 (Figure 4.15).

4.6.5 Comparison of wholesale and retail price in Kenya

Between 1995 and 1999, there was a very small difference between wholesale and retail prices for gasoline. However, the gap widened between 2001 and 2008 (Figure 4.16). In the case of diesel, the differences have been high, although this widened during the later period. For Kerosene, wholesale price was higher than retail price between 1995 and 2001 when the government was subsidizing

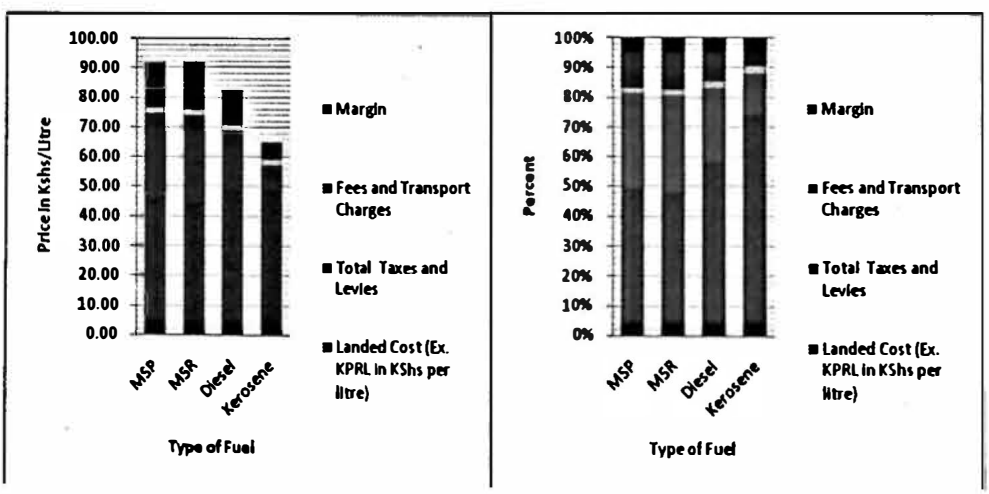
kerosene as a necessity among poor households (Figure 4.17). However, between 2001 and 2009, the retail price has remained higher than the wholesale price.

4.6.6 Breakdown of petroleum prices in Kenya

Petroleum prices can be broken down into the various components: the landed cost, total taxes and levies, fees and transport charges, and profit margins. The landed cost is derived from the landed hydrocarbon value, and is usually calculated before the domestic taxes are added. Petroleum products attract four main taxes: excise duty, road maintenance levy, petroleum development levy, and import declaration and remission taxes. As can be seen from Figure 4.18, in June 2010, the landed cost of motor spirit super was Ksh 45.2 and 43.93 for motor spirit regular. On the other hand, the prices of diesel and kerosene were Ksh 48.20 and Ksh 48.22, respectively. With regard to taxes, MSP and MSR super had the highest levels at Ksh 29.76 and Ksh 30.34, respectively. Diesel taxes totalled to Ksh 21.09, while Kerosene taxes amounted to Ksh 9.14. The margins ranged from Ksh 15.86 in the case of MSR to Ksh 5.96 for kerosene. The margin for diesel was Ksh 11.84. This margin is shared between the wholesaler and the petroleum retail outlets. The margin for kerosene is small when shared between the wholesaler and the retailer.

Thus, landed cost accounts for about 50 per cent of the retail price in the case of MSP and MSR and 58 per cent and 74 per cent in the case of diesel and kerosene, respectively. On the other hand, taxes and levies accounted for about 31 per

Figure 4.18: Breakdown of petroleum prices in Kenya



Source: Computations from Petroleum Institute of East Africa and Kenya Pipeline Company data, June 2010

Table 4.3: Comparative oil prices by country (US cents per litre), 2009

Country	1998	2000	2002	2004	2006	2009
Botswana	31	42	41	66	78	69
Brazil	80	92	55	84	126	151
China	28	40	42	48	69	66
Egypt	29	26	19	28	30	43
Ghana	32	20	28	49	86	33
Kenya	**70**	**71**	**70**	**92**	**112**	**116**
Libya	22	25	10	9	13	41
Malaysia	28	28	35	37	53	46
Nigeria	13	27	20	39	51	44
South Africa	43	50	43	81	85	82
Sudan	33	28	30	47	72	46
Tanzania	63	75	67	93	104	123
Tunisia	60	49	29	68	83	80
Uganda	86	86	83	102	117	141
Venezuela	14	12	5	4	3	2

Source: International Energy Agency

cent for MSR and MSP, and 26 per cent and 14 per cent for diesel and kerosene, respectively. Profit margin was about 16.5 per cent for MSP and MSR, and 14 per cent and 10 per cent for diesel and kerosene, respectively. The profit margins for Kenya are more or less the same as those in other oil importing countries in sub-Saharan Africa and other developing countries. However, the energy regulator has to exert pressure on the marketers to reduce the profit margins. Tanzania's margins for kerosene, for example, are Ksh 3 lower than that of Kenya, and yet the two countries have similarities in market structure and supply infrastructure.

4.6.7 Comparative analysis of gasoline prices

Kenya has one of the highest prices of petroleum products in the developing world. The price of gasoline (super) in 2009 was US$ 116 cents per litre compared to only 33 cents in Ghana and 43 cents in Egypt (Table 4.3). While the latter two countries are producing their own oil, the prices in some net importers of petroleum products such as Botswana and South Africa are still much lower than those in Kenya, most probably because of tax rates.

4.6.8 Petroleum sector constraints

The petroleum sector in Kenya faces certain constraints. As a net importer of petroleum products, the country is vulnerable to international price volatility. Kenya does not have adequate hedging facilities to cushion the country from unforeseen price increases. Other constraints include:

- The refinery infrastructure is old and outdated, which limits the capacity to refine enough crude oil to meet demand.
- The pipeline infrastructure is not able to pump enough products due to low capacity, particularly from Nairobi to Kisumu.
- The 90-day stock required as per the energy policy has not been implemented fully, which affects security of supply. As a result, stock-outs are very high in northern and the western region.
- The distribution channel lacks efficiency, leading to lack of timely supply in some regions of the country. This creates disparities in pricing of products as well as artificial shortages.
- The railway system is too inefficient to adequately complement the pipeline infrastructure.

Capacity utilization in Kenya's petroleum sector varies from product handling at the port of Mombasa, storage facilities at Kipevu, refinery capacity, to pipeline capacity. To begin with, the Likoni channel is narrow and, therefore, large vessels cannot enter the port. This limits the volume of crude and world products that can be offloaded at the port. The current facilities at the port are, therefore, over-utilized. Secondly, the Kipevu Oil Storage Facility cannot handle all the products being offloaded, and this causes delays. Many oil carrying vessels have to wait at sea for weeks before offloading. Thirdly, the refinery capacity can only handle 30 per cent of petroleum demand, and this is compounded by the old technology used in the refinery. Fourthly, the storage facilities in Nairobi, Nakuru, Eldoret and Kisumu are over-utilized and require urgent upgrading.

In conclusion, though price controls can cushion the consumers from prohibitive prices, they can worsen the problem by failing to encourage consumers to conserve and producers to invest more. They can also generate artificial shortages. What is required instead of petroleum price controls is a good regulatory environment that ensures an efficient distribution of products in the country, and gradual building of more infrastructure capacity.

5. Causes of High and Rising Food Prices in Kenya

Besides the factors identified as causing high prices of the specific commodities discussed in the preceding section of this paper, this section summarizes other factors identified in literature as being generally responsible for high food prices, both globally and in Kenya. These factors include supply side constraints, demand factors, trade policies, and structural and institutional factors.

5.1 Supply Factors

Several factors that constrain supply and thereby contribute to increased food prices in Kenya and elsewhere include escalating petroleum prices, drought, loss of soil and productivity, agricultural subsidies in developed countries, rising ozone levels, and structural and institutional factors.

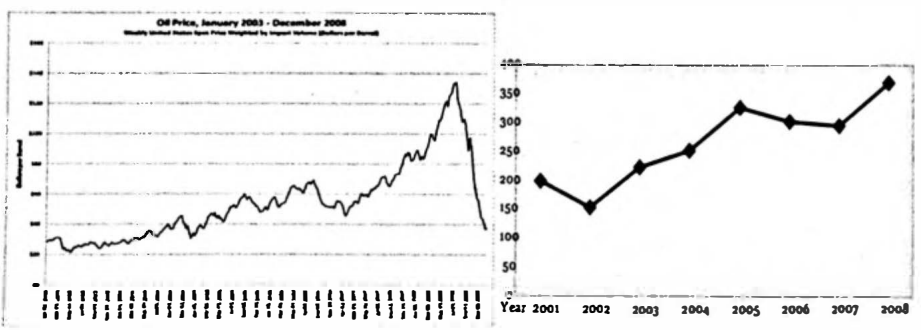
5.1.1 Petroleum prices and their impact on fertilizer costs and other production costs

Global oil prices have risen steadily since the early 2000s, reaching a peak of more than US$ 132 per barrel in June 2008 (Figure 5.1a).

The steep rise in the price of oil has had the effect of increasing the cost of fertilizer, since the majority of fertilizers require petroleum or natural gas to manufacture. The main fossil fuel input for fertilizer production is natural gas, whose price has also escalated (Figure 5.1b). Because natural gas is a substitute for petroleum in some uses (for example, natural gas liquids and electricity generation), the increasing prices of petroleum lead to increasing prices for

Figure 5.1: International oil and natural gas prices

(a): International oil prices (b): Natural gas prices



Source: United States Department of Energy

natural gas. The increase in prices of oil and natural gas has led to considerable increase in fertilizer prices and, ultimately, escalating food prices. As reported in the *New York Times* of April 30, 2008,[1] costs of the other raw materials for fertilizer production, such as potash, have also been increasing. The rising demand for food and bio-fuels has also stimulated greater agricultural production and unprecedented demand for fertilizer. Fertilizer mines and factories around the world have been unable to keep up with the demand for the fertilizer, leading to high fertilizer prices.

Another channel through which high petroleum prices have contributed to escalation of food prices is by raising the cost of running farm machinery such as tractors. The high cost of electricity in milling and other food processing enterprises, which is partly influenced by petroleum prices, has also contributed to high food prices.

Price controls at the wholesale or retail levels will not be able to tackle the problem of high food prices arising from increased oil and fertilizer costs. Fertilizer subsidy would be more appropriate.

5.1.2 Drought and other natural disasters

Among the factors that have caused shortfalls in crop production around the world is drought. In 2008, for instance, severe weather conditions led to decreased production of most food crops in Kenya. The extended drought in Australia in 2008 led to the annual rice harvest falling by as much as 98 per cent. To tackle food shortage as a result of drought, there will be need to increase acreage under irrigation. This is a major priority in Kenya Vision 2030 and the economic stimulus programme. Controlling prices would reduce the incentive for farmers to invest in irrigation.

5.1.3 Soil and productivity losses

Research has shown that large areas of croplands are lost year after year due to soil erosion, water depletion and urbanization. These arise from human activities such as settlement in water catchment areas and destruction of forests. Lewis (1985), in a study that covered Kiambu and Murang'a districts, found that almost 25 per cent of the sampled fields were suffering from excessive soil losses. High food prices arising from productivity losses will not be addressed by price controls. Instead, it will require cost-effective measures to increase soil productivity, reduce soil erosion and protect water catchment areas.

[1] http://biz.yahoo.com/nytimes/080430/1194770341872.html?.v=6

5.1.4 Rising levels of ozone

Another factor that has been cited as a possible cause of reduced food production, and therefore rising food prices, is the high level of ozone in the atmosphere. Plants have been shown to be highly sensitive to the ozone level, and that lower yields of important food crops such as wheat and soybeans may be a result of these levels. Manning (2008), studying the effects of ozone levels in the Yangtze Delta on oilseed rape, which accounts for one-third of the vegetable oil used in China, found that higher ozone levels led to 10-20 per cent reduction in size and weight (biomass). Addressing climate change challenges requires concerted international effort and cooperation, and adoption of adaptation technologies.

5.2 Demand Factors

Several demand factors have increased demand for food crops and hence their prices. These include increased use of food for bio-fuel production, increase in population, and change in consumption patterns.

5.2.1 Increased use of food to produce bio-fuel

One of the main causes of rising global food prices has been the increased diversion of food crops (maize in particular) for making first-generation bio-fuels (Chandrashekhar, 2008). The increased use of bio-fuels has been driven by increased concerns for energy security, rising oil prices and climate change. *The Economist* magazine of June 2008 estimates that 100 million tonnes of grain per year are being redirected from food to fuel.[2] As farmers devote larger parts of their crops to fuel production than in previous years, land and resources available for food production have been reduced correspondingly. The resultant reduction in global grain production has led to rising grain prices.

Sugarcane has also been increasingly used to produce ethanol instead of being crushed to produce sugar. Since the returns from ethanol are higher than white sugar, farmers prefer to sell their canes to produce ethanol. World Bank (2008) observes that increased use of sugarcane to produce ethanol in Brazil has reduced the volume of global sugar production and increased sugar prices. On 29 April 2008, the US President, George W. Bush, noted that "85 per cent of the world's food prices are caused by weather, increased demand and energy prices", and that "15 per cent has been caused by ethanol". Mitchel (2008) estimated that 70-75 per cent of global rise in food prices have been caused by diversion of food crops

[2] The total worldwide grain production for 2007 was just over 2000 million tonnes.

to bio-fuel production. However, other studies have found the impact of bio-fuel production on food prices to be smaller.

5.2.2 Population growth and change in consumption pattern

Population growth has also increased demand for food and thus increased pressure on prices. Kenya's population is growing by around one million people per year (Kenya National Bureau of Statistics, 2010). In addition, there has been a shift in consumption behaviour of the population away from traditional foods towards greater dependence on maize, rice and wheat, thereby increasing pressure on the demand for and price of these three commodities.

5.3 Trade Policies

The trade policies adopted by Kenya, regional integration blocs and other countries have also affected food prices.

5.3.1 Export bans

Responding to rising food prices, some countries banned exports of certain goods. Egypt, Vietnam and India, for instance, banned the export of rice to cushion their domestic consumers from rising prices. This adversely affected countries that are net importers of rice due to the resultant reduction in supply and increase in the price of rice.

5.3.2 Regional tariff differentials

Under the EAC and COMESA trade regimes, maize, wheat, rice sugar and palm oil are considered as 'sensitive products' and, therefore, attract duties higher than the stipulated Common External Tariff of 25 per cent. The duty rate is occasionally adjusted depending on economic performance and related factors. Further, some of the products are considered as having potential for domestic production and cross-border trade, and tend to be protected against imports from outside the region. The review provided for under Articles 12(3) and 39(c) of the EAC Customs Union protocol creates disparities in applicable tariffs among member countries (Table 5.1).

These disparities in the application of tariffs on sensitive products, together with exemptions and duty remission schemes, lead to price disparities in the trade bloc and encourage anti-competitive practices such as hoarding and smuggling.

Table 5.1: EAC common external tariff on selected products

HS Code	Products	CET 2007 version (%)	Revised import duties during 2010/11 (%)				
			Burundi	Kenya	Rwanda	Tanzania	Uganda
1001.90.20							
1001.90.90	Hard wheat other wheat and meslin	35	35	10	0	10	10
1101.00.00	Wheat and meslin flour	60	35	60	35	60	60
1005.90.00	Maize	50	-	0	-	-	-
1006.10.00							
1006.20.00							
1006.30.00							
1006.40.00	Rice	75	35	35	30	35	35
1701.11.90							
1701.12.90							
1701.91.00							
1701.99.90	Sugar	35					
100							
100							
100	35	N/A*	25	35	35		

Source: EAC Secretariat, 2010

* Sugar imports into Kenya are under the COMESA safeguard rules.

Full implementation of the EAC common market is expected to lead to uniform application of tariffs and other trade instruments. Further, the EAC partner states are working towards a more harmonized CET for SADC, COMESA and EAC through a Tripartite Agreement. The on-going comprehensive CET review will take into consideration the need of industrialization of the region, degree of processing and value addition, and level of development of the region.

5.3.3 High MFN tariffs

The economic rationale for maintaining high tariffs is to protect domestic producers against competition from imported products that are from non-preferential benefiting countries. However, protection has the negative effect of stifling competition, thereby leading to inefficient allocation of factors of production. The resultant higher costs translate into high prices.

5.4 Governance and Institutional Factors

Governance and institutional factors that lead to rising food prices in Kenya include:

(i) Delay in paying farmers, thereby demoralizing them.

(ii) Low crushing capacity of sugar and other processing firms. In the case of sugar, for example, millers supply only 60 per cent of national sugar demand currently. This inadequate milling capacity and the consequent delay in cane harvesting have discouraged farmers from adopting quick maturing cane varieties. In addition, delay in harvesting cane reduces sucrose content and, therefore, the price the farmers will fetch.

(iii) Low capacity of maize millers to meet national demand.

(iv) Lack of capacity of the National Cereals and Produce Board (NCBP) to buy all the maize stocks from farmers during harvest, leading to huge post-harvest losses.

(v) Control of market by a few big suppliers (millers), which leads to poor prices to farmers.

6. Conclusions and Alternative Policy Options to High Food Prices in Kenya

This study has shown that the problem of escalating prices of essential commodities is real in Kenya and requires urgent attention. However, direct price controls are not the appropriate intervention. Moreover, although this has not been discussed in the study, while a case can be made for setting quality standards, prescribing "... the type of packing, weight, size, quality, marking and the processing and ingredients of any such goods manufactured in Kenya" is another form of direct control that would curtail innovation to the ultimate disadvantage of the consumer who is supposed to be the beneficiary of the legislation.

A three pronged approach is recommended as an alternative to direct price and other controls: (i) ensuring urgent household food security without interfering with the prices; (ii) lowering food prices through short-term trade policy measures or administrative action; and (iii) enhancing long-term food supply. The government and development partners have key roles to play in each of these interventions.

6.1 Ensuring Food Security without Interfering with Prices

These are "quick-fix" or "stop-gap" measures aimed at ensuring urgent food security especially for the poor without distorting the prevailing prices.

6.1.1 Interventions by the Government

The Government of Kenya should consider greater use of targeted social benefits as stop-gap measures. Examples of such support include:

(a) Targeted social benefits

The most commonly recommended intervention in response to rising food prices and the inability of the population to afford basic essential goods is the provision of targeted social benefits, usually through conditional or unconditional cash transfers. The main advantage of this intervention is that it does not act as a disincentive for the producers who must cope with rising production costs. Instead, it acts as an incentive to the producers when more of their goods are demanded. In addition, since it is targeted, it ensures that only those who cannot afford the basic goods benefit, thereby ensuring that the cost of the programme is manageable. Various kinds of cash transfer programmes are currently in place

in China, Brazil, Egypt, Ethiopia, Indonesia and Kenya.[1] These programmes were introduced after it was determined that the targeted groups were not able to afford basic and essential goods, particularly foodstuffs. Implementation of these programmes can be made dynamic to take care of any unforeseen shocks in food prices. For instance, Ethiopia increased the cash wage in its cash-for-work programme by 33 per cent in February 2008 in response to rising food price inflation that had reached 23 per cent (year on year) by that month.[2] It needs to be stressed that social benefits must not be viewed as long-term measures to combat rising food prices or ensuring food security. Appropriate long term measures should be implemented, concurrently with these stop-gap measures.

(b) Self-targeted food-for-work programmes

These are designed to minimize the incentives the non-poor may have in taking advantage of social safety net programmes. This can be achieved by introducing manual work for food and queuing (which will be a disincentive for those who can afford to buy the food). Several countries, including Madagascar, Cambodia, India and Bangladesh have used this kind of social benefit scheme to ensure food security of the most vulnerable people.

(c) Emergency food aid

Countries such as Angola, Afghanistan and Kenya have used emergency food aid to ensure food security for its poor in times of severe food shortages and increased food prices. With buffer stocks built in times of surplus, the government can easily give emergency food aid when that becomes necessary during times of drought and low harvest. This can also be a short-term policy option in responding to rising food prices as long term measures are put in place to increase food supply and security.

6.1.2 Interventions by development partners

Development partners have a role in ensuring food security through social benefits, mainly by partnering with government and providing technical assistance.

[1] In Kenya, examples are the school feeding and the orphans and vulnerable children programmes

[2] See a note on rising food prices prepared by the World Bank on by the http://siteresources.worldbank.org/NEWS/Resources/risingfoodprices_backgroundnote_apr08.pdf, accessed on 1/07/2010

(a) Partnership in financing social benefit programmes

Most social benefit programmes entail massive financial commitments way beyond the meagre fiscal resources of developing countries. Donor agencies, including the World Bank, DfID, and WHO have been involved in the past in financing of several social programmes in most developing countries experiencing high food prices, Kenya included. The key recommendation is for the government to develop adequate early warning capacity to enable it determine impending food and other crises well in advance. This would enable the government to approach the development partners with partnership proposals to counter the impending crises.

(b) Providing technical assistance in the design, targeting and programme implementation

Several development partners, by their vast experience in the implementation of social programmes in different countries and under different contexts, can provide technical assistance to the government on what works, why it works and the conditions for success. This will increase the effectiveness and success rate of such programmes. In Egypt, for instance, the World Bank helped bring together Mexican officials with experience in conditional cash transfer programmes to share with government officials on their experiences. In Ethiopia, the wage rate analysis by the World Bank was the basis of adjusting the cash transfer programme in the wake of rising food prices in 2008.[3]

6.2 Lowering Food Prices Through Trade and Administrative Measures

Several trade and administrative measures can assist the government and development partners to deal with food price increases.

6.2.1 Interventions by the government

The government can lower food prices by reducing tariffs and other taxes on essential commodities, providing subsidies to boost supply, and increasing buffer stock.

[3] See a note on rising food prices prepared by the World Bank at http://siteresources.worldbank.org/NEWS/Resources/risingfoodprices_backgroundnote_apro8.pdf pp 7, accessed on 1/07/2010

(a) Reducing tariffs and other taxes on essential goods

It is common for countries to impose tariffs on food imports to generate revenue and protect domestic industries. When food prices are on the rise, reductions in tariffs may increase imports, thereby reducing domestic prices of the food items. However, there is need for caution particularly when reductions in tariffs are combined with increased social benefits. Reduced tariffs will deny the country the revenue required to finance the social programmes, and also expose domestic producers to unfair competition when imports are subsidized in their countries. However, protection of local producers for long may also not be a good policy as it stifles competition and reduces the incentive for innovativeness and efficiency. This policy option should be a short-term measure as long-term measures are being put in place.

(b) Hastening effective implementation of regional trade agreements

This would involve:

(i) Effective implementation of the EAC Customs Union and common market regimes. This would help to ease the prices and food supply situation by facilitating free movement of commodities across the region. This would also lead to uniform application of tariffs and other trade instruments, thereby minimizing price disparities and discouraging smuggling.

(ii) Implementation of the Simplified Trade Regime (STR) by EAC and COMESA, which is expected to enhance movement of goods across the region. In addition, the comprehensive CET review being undertaken by EAC partner states with the aim of achieving a more harmonized CET for SADC, COMESA and EAC should be fast-tracked.

(iii) Hastening harmonization of domestic taxes and implementation of initiatives such as signing and ratifying the agreement on avoidance of double taxation and developing a model for Double Taxation Agreement (DTA). This can help to check against escalation of prices and discourage smuggling in the region.

(c) Providing subsidies to increase supply

Some countries are using subsidies to reduce prices of essential goods. Yemen, for instance, started to supply wheat in selected markets at subsidized rates following a sharp rise in food prices. Kenya itself attempted to introduce subsidized maize

flour for the poor, which retailed at a lower price than the normal retail prices. The government of Pakistan re-introduced ration cards in early 2008 to distribute subsidized maize. These indirect measures had the effect of exerting downward pressure on retail prices while allowing the poor access to subsidized commodities. However, this policy may also be counterproductive, since it exerts downward pressure on producer prices while production costs remain high. If producers are not able to break-even as a result of this pressure, they will reduce or cease production altogether. In addition, the subsidy may impose fiscal pressure and prove unsustainable in the long-run. Indeed, India which had been giving fuel subsidies to its consumers had to abandon the programme on 25 June 2010 due to sustainability challenges.[4] This policy should, therefore, only be considered as a stop gap measure.

(d) Increase in buffer stock

Many countries including Kenya have implemented a grain buffer stock policy to carry over grain surpluses from low price (bumper harvest) seasons to high price (low harvest) seasons. In Kenya, this policy is undertaken by the Ministry of Agriculture through the National Cereals and Produce Board (NCBP). However, the NCBP still lacks the capacity to absorb all the grain harvested during the bumper harvest seasons, for example in early 2010. Administrative bottlenecks in the government compound this capacity limitation. In the early 2010 case, for example, the Ministry of Finance did not release money in time to buy surplus maize, and the Board has not been able to build its financial muscle to date. There is need, therefore, for the government to increase the capacity of the NCBP to absorb surplus grain and also to remove administrative bottlenecks particularly in availing finance for the purchase of surplus grains.

6.2.2 Interventions by development partners

Development partners can play the roles of advocating for reduction of subsidies in developed countries and removal of policies such as export bans that worsen the situation, and helping Kenya to strengthen competition policy and regulatory institutions.

(a) Advocating for reduction of developed country farm subsidies

[4] See http://www.financialexpress.com/news/india-is-the-only-nation-to-adopt-cost-based-price-control-system/175543/ Accessed on 01/07/2010

Several development partners have initiated discussions with countries that have subsidy programmes for their farmers. These discussions need to be hastened to eliminate the negative externalities associated with the subsidies.

(b) Advocating for removal of policies that have negative effects on other countries

Export bans on essential commodities implemented by several countries have had very adverse effects on the net importing countries. The resultant price increases in the importing countries can easily lead to both political and macroeconomic instability. Development partners with influence on the exporting countries should advocate for the removal of such bans, and the need for these countries to avoid panic and consideration of such policies during future crises.

(c) Strengthening of competition policy and regulatory institutions

One of the main causes of high prices of essential commodities in Kenya is lack of effective competition policy and laws that can protect consumers. The Monopolies and Prices Control Commission, currently under the Ministry of Finance, should be empowered legally and strengthened to deal with competition issues. In countries such as South Africa, where competition policy is strong, price and monopolies commission is placed under the ministry of trade. The Ministry of Trade in Kenya lacks legal and institutional mandate to regulate trade matters.

The draft Competition Bill of 2009, which aims at restructuring the trade sector and protecting consumers, is still in Parliament. This bill proposes the creation of a Competition Authority. Moreover, the bill is clear on institutional and legal framework for consumer protection. The solution to creating competition and protecting consumers lies in the passing of the Competition Bill of 2009, rather than resorting to direct price controls. In addition, there is need to empower the Ministry of Trade to deal with business licensing and other trade matters that are scattered in different ministries.

6.3 Enhancing Long-term Food Supply

To enhance long-term food security, which is the key recommendation of this study, both the government and other players, including development partners, have crucial roles.

6.3.1 Role of government

The government should enhance its efforts on addressing the supply-side constraints that limit the ability of the country to produce enough food to feed its population. It should do this by:

- Increasing acreage under irrigation for maize, sugar and rice;
- Providing input subsidies, including fertilizers to cushion the farmers from high costs of production;
- Strengthening the capacity of the National Oil Corporation of Kenya (NOCK) to better play the role of price stabilizer, and thereby increase competition in the petroleum sector. This will reduce the cost of petroleum, which is an important factor of production;
- Publishing an indicative formula (and regular price updates) to provide information to consumers on the optimal level of oil prices, taking into account all factors such as transport and insurance costs, and profit margins. This will empower consumers with information to enable them apply pressure to oil companies by shirking the products of those selling at high prices. This should be complemented with regular monitoring of anti-competitive market behaviour and conduct in the industry and taking remedial action;
- Enhancing investment in geothermal and alternative sources of energy, such as wind power to reduce the cost of electricity and providing incentives to stimulate greater participation of the private sector;
- Increasing crushing capacity of sugar millers by providing the necessary support;
- Providing incentives to private maize flour millers to increase competition in the sub-sector;
- Addressing the monopolistic behaviour of maize millers using the Restrictive Trade Practices, Monopolies and Price Control Act, Cap. 504 of the Laws of Kenya;
- Investing in more storage facilities to increase buffer stocks; and
- Addressing institutional bottlenecks, including corruption.

6.3.2 Role of development partners

Development partners can help Kenya achieve long-term food security by financing big agricultural projects, increasing funding to the agricultural sector, and helping to resolve the food vs. bio-fuels trade off.

(a) Financing long term agricultural projects

Several development partners have in the past financed and continued to finance projects with the long term objective of increasing food supply in most developing countries, increasing storage facilities and distribution networks. These initiatives should be increased in Kenya.

(b) Making agriculture funding a priority

Funding of agricultural projects in developing countries by the development partners has in the recent past drastically reduced. For instance, 30 per cent of World Bank's annual lending went to agricultural projects in 1980. This had reduced to 12 per cent by 2007.[5] The Official Development Assistance going to agriculture is estimated to be only 4 per cent. Increasing funding to agriculture and looking at agricultural projects as the engine for growth in most developing countries should, therefore, be prioritized.

(c) Debate on bio-fuel vs. food production trade-offs

Development partners should spearhead debate on the competing needs for energy security through the use of bio-fuels and the need for food security through increased food production. The production of second generation bio-fuels produced from waste materials (instead of food crops) can be an alternative way of producing bio-fuels without reducing land under grain production.

[5] See a note on rising food prices prepared by the World Bank at http://siteresources.worldbank.org/NEWS/Resources/risingfoodprices_backgroundnote_apro8.pdf pp 8, accessed on 1/07/2010

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