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Maize Marketing in Kenya, 1976-1996
Liberalization and Food Security

Henk Meilink

Abstract

This chapter reviews Kenya's experiences with policy reforms in the staple food maize market. Escalating fiscal costs associated with intensive government involvement in the grain markets motivated the World Bank and the IMF to promote the 'liberalization' of marketing and pricing systems in the food market as a central component of the 'structural adjustment programmes' (SAP) implemented throughout Africa in the 1980s. As maize trade and pricing greatly affect Kenya's food security, this chapter attempts to trace the implications of maize market reforms for the various actors in the maize sector: producers, traders, millers, consumers and the state itself. There are five parts. Section 3.2 discusses the theoretical basis of SAPs and the anticipated consequences for food security. Section 3.3 describes the characteristics of Kenya's maize market prior to the reforms. Section 3.4 analyses the politics of the reform process and the emerging new setting of the maize market. Decisive reform implementation only commenced in 1994 when the maize trade was fully liberalized and private traders began to participate in the market. This period is analyzed in Section 3.5 and is followed by the conclusions in the final section.

The Kenyan government has long been reluctant to 'leave the maize market to the workings of the market forces'. The state marketing board, the NCPB, still holds a dominant position continuing to set the annual maize price for producers and to purchase a substantial part of the marketed maize.

From a food security point of view, the major beneficiaries of the reforms have been the urban consumers. Maize flour prices in the urban areas have dropped considerably, largely as the outcome of increased competition in the maize milling industry. Unfortunately, knowledge of the consequences of market reforms for Kenya's rural consumers and smallholder maize producers is still unsatisfactory. A tentative analysis of recent price developments in rural maize markets in various provinces in Kenya shows, for instance, no signs of diminished (regional or seasonal) price instability.

3.1 Introduction

The international financial institutions (IMF and World Bank) responsible for the design of 'structural adjustment programmes' (SAPs), and other donors involved in Africa's development, have reached the conclusion that African governments, through their interventions in the agricultural and food sector, have failed to secure reliable food supplies at stable and affordable prices for their populations (with the exception of the urban population to which food policies were often heavily biased). State food marketing boards in particular, which were granted a monopoly position in their food procurement and pricing activities, have been blamed for their inadequate performance, operating at high costs and causing a serious drain on the state budget. Their inefficiency and ineffectiveness are also thought to have contributed to low producer prices and a generally ill-functioning domestic food marketing system.

Consequently, 'structural adjustment' called for the end of government involvement in the pricing and marketing of agricultural produce. This policy reform would pave the way for ultimately 'liberalized' (or rather privatized) markets.[1] The replacement of the state boards by private marketing agents was expected to result in not only a better fulfilment of the marketing tasks but also in substantially lower costs. This would allow for positive incentive margins for both traders and processors and a higher price for food producers, thus stimulating the growth of food output. But consumer food prices were also expected to rise, as existing food subsidies were being reduced or entirely removed. This effect, however, was believed to be offset by a counter move to lower consumer prices made possible by the lower operating costs of the private marketing system.

This chapter seeks to confront SAP theory with the Kenyan experiences of food market reforms. It concentrates on the marketing of maize for two reasons. First, maize is the staple food of the large majority of the Kenyan population. It provides some 45 per cent of calorie intake of the average Kenyan household and over 90 per cent of Kenya's farmers are involved in maize production (Smith, 1992, 2). Second, Kenya has a long tradition, stemming from the colonial period, of extensive government price control and market regulations in its maize sector. Since the early 1980s the World Bank and other donors have been pressing the Kenyan government to reduce its role in the pricing and marketing of its staple food.[2]

As maize represents a crucial commodity in the food security record of the majority of the Kenyan population, it is important to examine how a de-controlled maize market impacts on the factors that determine food security at different levels. At the level of individual households a relevant question is if maize market liberalization helps (1) to increase a

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1 The term 'liberalized' conveys a positive message. It suggests that a market 'freed' from government intervention and regulation performs better! In the literature the term 'liberalization' refers to the relaxation of regulatory controls on private marketing, whereas 'privatization' implies a withdrawal of state agencies from pricing and marketing (Jayne & Jones, 1997, 1505).

2 Marketing arrangements and price formation processes are closely interrelated and are therefore often discussed simultaneously.

household's ability to produce more food for self-consumption or (2) to enhance its capacity (purchasing power) to buy the required food in the market. And as the price of food is a crucial determinant of food security for consumers and producers alike, questions about how far food prices are affected by market reforms become of central importance.

Furthermore, at the sectoral level, relevant issues include: the effect of market liberalization on the level of, and the yearly fluctuations in, overall maize production (national food security). And finally, from a regional point of view, the question of whether market liberalization will facilitate the flow of maize from surplus to deficit areas in the country (regional food security) needs attention.

For a proper understanding of the factors at work it is argued that next to a 'technical-economistic' orientation a 'political-economic' approach is necessary. This is because in African conditions, food systems are highly politicized and 'patronized' by the politically powerful. Often political interests and considerations in the food policy-making process tend to overrule sound economic arguments. This makes an analysis in strict economic terms (which is typical for most of SAP design and theoretical reasoning) largely miss its mark.

The chapter is organized as follows. Section 3.2 briefly outlines the theoretical basis of SAP reforms and the anticipated effects on food security. In Section 3.3, the focus is on the long-term characteristics of Kenya's maize market. It discusses the motivations of heavy government intervention and the resultant outcomes and tries to explain the reluctance of the Kenyan government to comply with SAP 'market liberalization' demands. Sections 3.4 and 3.5 look at the period starting in December 1993, when the Kenyan government finally gave in to the World Bank/IMF conditionalities. Here the various actors involved in the market (producers, traders, millers, consumers and government itself) who have all responded differently to reforms are considered in an attempt to pinpoint the 'winners and losers' in the new maize market setting.

3.2 Structural adjustment: theoretical framework and rationale

The World Bank (WB) and the International Monetary Fund (IMF) are the originators of the 'structural adjustment programmes' in Africa. The general diagnosis of the IMF/WB involves the notion that macro imbalances and domestic supply constraints are at the root of Africa's ongoing crisis. Excessive deficits in the balance of payments (external imbalance) and the government's budget (internal disequilibrium) were caused by a combination of external and internal developments.

External shocks in the 1970s included the two oil crises, the recession and tariff protection in the industrialized western countries, the terms of trade deterioration, the higher interest rates and an overall diminished demand for Africa's traditional exports on the world markets. These events gave rise to a rapid worsening of the balance of payment position in a great number of African countries at the beginning of the 1980s.

Internally the situation was exacerbated by the consequences of mistaken development policies. These included: inappropriate exchange-rate policies (overvaluation of the local

currency), disincentive trade policies, heavy taxation of farmers' output and an over-extended and inefficient public and parastatal sector. Soon, government expenditures began to far exceed revenues and led to serious budget deficits, impeding the growth of domestic supplies of goods and services. Constraints on growth of production were also thought to emanate from excessive government regulation of, and participation in, economic transactions and decision making. This caused 'distortions' in the market and price formation processes and led to the unproductive allocation of scarce resources.

Not surprisingly the proposed remedy involved a substantially reduced role for African governments in the functioning of the economy. Financial resources were to be switched from the public to the private sector and from consumption to productive investments. More funds in the hands of private producers, accompanied by a proper price incentive structure, would lead to increased output, more employment and rising incomes for the African population. A move towards market-driven economies was also expected to produce internationally competitive goods and services, which would contribute to the foundation of a sustained, export-led growth of production. Correct price signals are crucial and are anticipated to effectively work their way through all (monetized) sectors of the economy where markets of different types (for products, inputs, labour, land and capital) are well integrated and operate efficiently and smoothly. These are the characteristics of the type of economy envisaged by international bankers to be the best guarantee for sustained economic growth and welfare improvement (World Bank, 1989 and 1994). Economic price signals and well-integrated, efficiently operating markets are the essential building blocks of standard SAP reasoning.

The agricultural sector, and small farmers in particular, are expected to benefit from three types of reforms: a) an end to past policies of high export taxes and overvaluation of the national currency. Devaluation (and the subsequent producer price rises) combined with internal decontrolling of price formation is assumed to enhance agricultural output; b) improved domestic marketing of agricultural produce. The replacement of inefficient parastatal marketing boards by private traders tends to lead to substantially lower operating costs of marketing activities. Gains resulting from more efficiency in the marketing system are assumed to translate into higher producer prices and c) reforms in international trade regulations. Liberalization of import/export regulations, in the form of reduced (or completely removed) tariffs, quotas and subsidies are also expected to clear the way for increased export trade and production in the agricultural sector.

It must be remembered that from the outset SAPs were not designed with the explicit goal of improving the food security conditions of the African population. Indeed, food security considerations did not rank high on the list of SAP priority objectives. The focus was first and foremost on exportable agricultural commodities which were expected to earn badly needed export revenues. Nevertheless market and related price reforms (as central elements of SAPs) have consequences for the food security of different socio-economic groups. The main analytical task is then to assess how food markets (and other types of markets in which households operate) are altered under the process of SAP implementation and how these changes in market conditions in turn affect the crucial determinants of

household (and other levels of) food security. In particular, changes in: a) producer and consumer prices and b) food availability in urban and rural markets should be the subject of analysis.[3]

Food price rises may result in higher incomes for food producing households, at least if there is a production surplus that can be sold on the market. But a substantial proportion of the food producing households in sub-Saharan Africa are also food buyers on the market (when household stocks are depleted).[4] Households are then confronted with the adverse effect of higher retail prices. The net outcome depends on the household's own-produced food to food purchased ratio. Furthermore a devaluation of the national currency (a priority measure in SAP implementation) tends to increase farmers' costs of imported agricultural inputs (fertilizer, fuel, etc.) and consequently partly to offset the advantages of a food price rise.

So much for theory and the (sometimes hidden) assumptions incorporated in the theoretical framework. The remainder of the chapter will concentrate on the actual workings of Kenya's maize marketing system and our knowledge of the consequences of the changes brought about by the reforms.

3.3 Maize marketing and pricing in Kenya: before the reforms

Maize like any other commodity traded in a marketing system increases in value as it moves through the marketing channel from the farmer to the retail selling point. The value also increases when it is stored between harvests and if it is processed (milled and packaged). Different marketing functions are performed by different actors in the market chain. The operations of the actors are in turn affected by policies pursued by the state and a range of non-policy, agri-technical and socio-cultural variables (Thorbecke, 1992, 4). A proper understanding of each of the participating actors' roles and their behavioural determinants is a prerequisite for a meaningful analysis. But before focusing on the actor groups in the maize market, a brief overview of the trend in national supplies of maize over the years is called for.

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3 These are but two factors determining household food security. A host of other factors play a role including community support mechanisms and kinship and lineage relations, nutrition knowledge and eating habits, food storage and processing facilities, market infrastructure, health and sanitary conditions, decision making on the allocation of household expenditures, women's work load and time use, wars and conflicts, and droughts and environmental degradation. These complex inter-acting factors make an SAP-food security analysis a difficult exercise.

4 The percentage of farming households unable to produce enough food to last from one harvest to the next varies with time and place, but is often surprisingly high according to empirical findings. Sijm (1997, 63ff) notes that in Mali during the 1980s 'probably one half of the farm households did not produce enough to meet their consumption requirements'. Corresponding figures for Malawi and Tanzania reach as high as 80 per cent! (Ibid., 64). For Zimbabwe, Tagwireyi (1991, 64) quotes a figure of 40 per cent.

Production

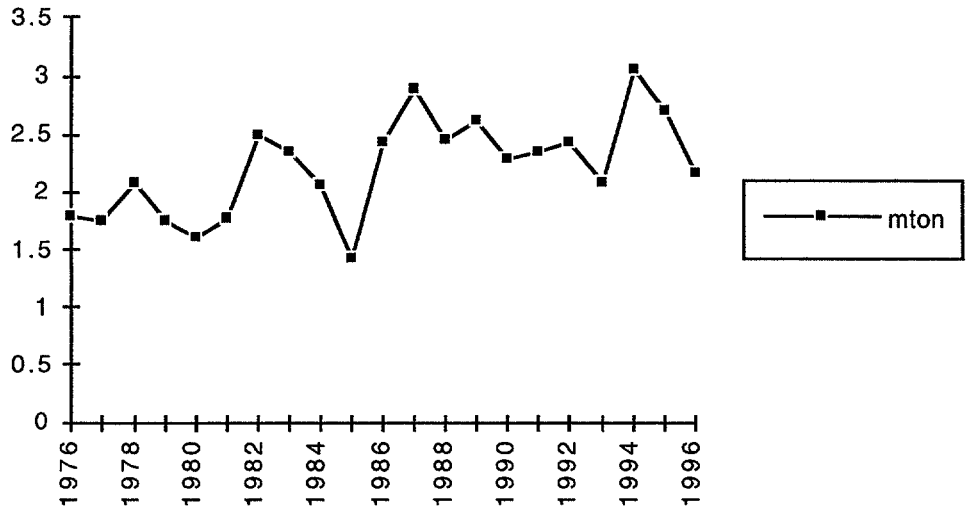
In Kenya almost all farmers (large- and small-scale) are involved in the cultivation of maize. But under the prevailing rain-fed conditions, harvests have shown great variation in the last 20 years (Figure 3.1). The serious declines in the drought years of 1979/80, 1984/85, 1992/93 and 1996 are well recorded. Production levels fluctuated from a low 1.4 million tons in the drought year of 1984/85 to over 3 million tons in the record year of 1994. It seems that in the fifteen-year period (1975/76 - 1989/90) maize production more or less kept up with the rate of population growth. In this period the five-year average rose from 1.8 million tons per year in 1975-1980 to 2.0 million tons in 1981-1985 and 2.5 million tons yearly in 1986-1990 (see Appendix). This volume of 2.5 million tons was assumed in 1990 to be enough to attain self-sufficiency (World Bank, 1991, 1). However, in the 1991-1996 period the yearly average dropped slightly to 2.46 million tons. Taking into consideration an average population growth rate of 3 per cent, this would indicate that the country slipped back to a maize output level lower than the self-sufficiency benchmark. As is clearly shown in the diagram, variations in maize production in the 1993-1996 period were extremely high: from a record harvest of 3 million tons in 1994 – a rise of 46 per cent! compared to the 2 million tons of the preceding year – to 2.2 million tons in 1996. This kind of variation causes considerable price fluctuations and has serious implications for national food security and the workings of the maize marketing system.

Variability in maize output is also reflected in the occurrence of exports and imports. During the nine-year period 1980-1988, Kenya exported 923,000 tons of maize and in the same period imported 1,021,000 tons, resulting in a net-inflow of around 100,000 tons (World Bank, 1991, 2). In the first half of the 1990s the net inflow increased dramatically to over 520,000 tons which may also be interpreted as a sign of lagging domestic production.

The planted acreage increased steadily (due to the introduction of hybrid maize) until the end of the 1980s when it levelled off at 1.4 million hectares (see Appendix). Statistical analysis indicates that the relationship between planted areas and production levels is strong.[5] Nearly two-thirds of the variation in production was explained by variation in the planted area. This implies that the area cultivated, rather than the yield, has been the determining factor for maize output growth. Maize yields stabilized at levels between 1,500 and 2,000 kg per hectare throughout the 1976-1996 period (see Appendix). Stagnation in land productivity is another worrying feature of Kenya's food sector. Given Kenya's overall shortage of good quality agricultural land, it is beyond any doubt that a radical intensification of maize production through increased use of agricultural inputs and the adequate provision of agricultural services is an absolute *sine qua non* for future food security.

5 The Pearson correlation coefficient is 0 80.

Figure 3.1 Kenya: maize production in million tons (1976-1996)



Note: Data are in the Appendix.

Marketing

A large proportion (70 per cent) of Kenya's maize production is provided by small-scale producers with the remainder being produced by medium- and large-scale farmers (Karanja, 1992, 139).[6] But when *marketed* maize output is considered the situation is reversed: large maize farmers market around 75 per cent of their production and smallholders only 25 to 30 per cent. Smallholder producers often intercrop maize with beans whereas large maize producers grow maize in pure stand. The latter in most cases own farm machinery and have access to formal credit institutions. Smallholders are generally self-financing and have to rely on (more expensive) informal credit sources when they have to pay for services or inputs. Large farmers deliver their maize surplus directly to the National Cereals Produce Board (NCPB) depots. Most of these depots are situated near railway stations. (The railway runs through the heart of the large-scale farm region, the former White Highlands.) Many large farmers have their own vehicles or can easily hire them in order to transport maize to the depots.

Significantly, only a small portion of Kenya's total maize production finds its way into the marketing system. For the 1983-1989 period an average share of 41 per cent was estimated (Argwings-Kodhek, 1993, 333). The remainder is retained for seed and home-consumption. This relatively small proportion of marketed maize reflects the predominantly

6 Kenyan statistics define smallholders as farmers with 8 ha or less, medium-scale farmers have between 9 and 20 ha and large-scale producers more than 20 ha.

subsistence nature of maize cultivation in Kenya. Obviously, a situation of thin food markets reduces the scope for 'economies of scale' in marketing and transport.

Prior to the market reforms, Kenya had a dual maize marketing system consisting of an officially regulated, state-controlled sector which predominantly served the large-scale, commercial maize farmers and a parallel, unofficial sector where smallholders traded small quantities at local markets.

In theory, nearly all marketed maize[7] was to enter the state-controlled NCPB marketing board (founded in 1979 after the merger between the Maize and Produce Board and the Wheat Board). This government parastatal was granted a legal monopoly to purchase, distribute and import maize. By 1987 the NCPB operated 60 depots and over 600 buying centres throughout the country (Government of Kenya, 1988, 42). But by far the largest part of the NCPB's purchases (85 per cent) came from the two western provinces of Rift Valley and Western which form the major maize producing areas of Kenya. Rift Valley alone provided two-thirds of the total NCPB maize purchases (World Bank, 1991, 14; Kliest, 1985, 43).

The official NCPB system predominantly served the large-scale producers and Kenya's urban population. Most (80 to 90 per cent) of the NCPB's sales of maize went to large millers[8] in the three major urban areas: Nairobi, Mombasa and Kisumu (Ikiara, 1998, 102). The neglect of rural consumers was largely due to the implicit assumption that the rural population produced enough to meet its own requirements (Jayne & Jones, 1997, 1512).

Essentially the pre-reform maize marketing system was characterized by a circuitous, expensive flow of maize from the NCPB depots in surplus regions to large-scale millers in urban areas, where it was milled at subsidized margins and then sent back as maize meal to the rural areas (Jayne & Jones, 1997, 1515). The margins granted to the large roller mills were much higher than those for the small *posho* mills which mainly operate in rural areas.

It is not clear how much of Kenya's total *marketed* maize under this system flowed into the official system, that is, into the NCPB depots. The World Bank estimated this share at 80 per cent in 1981/82 (World Bank, 1991, 14). But another WB publication puts the figure at 50 per cent (World Bank, 1986, 148). Maritim, in his comprehensive study on Kenya's maize sector, concluded that in 1974/75 no more than 40 per cent of all *marketed* maize entered the NCPB depots (Maritim, 1982, 21). And Jabara estimated a figure of 45-50 per cent for marketed maize sold to the official marketing system (Jabara, 1985, 615). Most likely, the NCPB share has fluctuated over time. Moreover, in years of abundant harvests the NCPB was often unable to absorb the maize that farmers offered for sale.

Nevertheless, there is no doubt that a great deal of Kenya's marketed maize was handled not by the controlled, official marketing system but in the parallel marketing sub-system. Maritim (1982, 21) estimated that 60 per cent of all marketed maize in Kenya was

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7 Movements of up to two bags of maize across district boundaries and 10 bags within districts were free, and did not require a transport permit issued by the NCPB.

8 Maize is overwhelmingly consumed in milled (flour) form. In urban areas large mills produce refined 'sifted meal' maize while in the rural areas (and to a limited extent also in urban areas) so-called hammer mills produce a whole or *posho* type of maize meal.

traded in rural local markets where prices and the volumes exchanged were determined by the supply and demand conditions prevailing in that specific locality. Here the official prices set by the government, as part of its food price policy, were largely ineffective. Likewise, government regulations to restrict movement of maize across district and provincial boundaries (as the second characteristic of the official food policy) were generally evaded. Bribery of police and local administrators and 'smuggling' were common practices.

The unofficial marketing sub-system served in particular the large number of small-scale maize producers (up to 70 per cent of their *marketed* production was handled in this sub-system) and by far the majority of rural consumers (World Bank, 1986, 148). Unfortunately, the significance of the parallel market sub-system in Kenya is often under-estimated in writings on marketing issues. The excessive attention paid to the merits and shortcomings of the official, government-controlled maize marketing sub-system is misplaced. It tends to ignore the market conditions faced by the larger part of the Kenyan population living in rural areas and often in locations beyond the reach of official marketing regulations. Here, food markets need not be 'liberalized' as they have never been subject to a firm 'government policy grip' (especially with regard to price formation).

Pricing

As a result of the dual marketing system, prices paid to farmers differed. Official prices were especially relevant to large-scale maize producers as they delivered directly to the NCPB depots. The policy of official pricing did not, however, affect the majority of Kenya's small-scale farmers. Here producers (and consumers) had to rely on local markets and local traders as the main actors in the price formation process. It is estimated that of the total smallholder *marketed* output only 30 per cent found its way to the NCPB depots (Meilink, 1985, 26).

The objectives of the official producer pricing policy (prior to the SAP reforms) were formulated in the "Sessional Paper No. 4 of 1981" and included the following: a) to provide incentives to farmers in order to encourage them to expand food production and to attain broad national self-sufficiency; b) to achieve that goal, producer prices at the farm-gate would be related to longer-term import parity prices (Government of Kenya, 1981, 16).

Producer price setting by the government has always been a complex and delicate exercise. This is not only because conflicting interests are involved, but also because marketed supplies are highly unpredictable due to factors beyond the control of pricing policies. There is no direct relationship between the price offered to farmers and the level of maize production because a host of other influences combine to determine actual maize output besides the set price level. These include public and private investment in the agricultural sector, storage facilities, input availability and their pricing, agricultural technology research, land policy, credit arrangements, the proper functioning of markets, timely payments to farmers and above all sufficient and timely rainfall.

In fixing the producer price for maize, the government made less and less use of the 'cost of production' criterion and gradually moved to 'import and export parity prices' as

guidelines. [9] In retrospect, the official prices paid were not unfavourable. Attractive pricing echoed the colonial policy which involved relatively high prices paid to settler grain producers (Heyer, 1976, 317). After independence this policy was continued. In the 1980s official nominal prices for maize producers rose from Ksh 86 per 90 kg bag in 1980 to Ksh 239 in 1990. After the 1991 drought, prices were pushed up from Ksh 275 in 1991 to Ksh 729 in 1993 (Table 3.1).

Taking 1982 as a base year, the index for agricultural input prices, on the other hand, rose from 222 in 1991 to 350 in 1993 (Government of Kenya, 1995, Table 8.6). Thus the increase in input costs for farmers in the 1990s was significantly less than the increase in their output prices. It can therefore be concluded that the producer price policy pursued by the Kenyan government acted as an incentive for maize producing farmers.

When applying the import parity price criterion, this conclusion is confirmed. The World Bank estimated that producer prices hovered around 75 per cent of import parity during the 1980s and were nearing import parity levels in the early 1990s (World Bank, 1994, 82; Swamy, 1994, 220).

During the 1980s official consumer prices[10] for milled maize (*posho* meal) increased rapidly from a nominal Ksh 1.65 per kg in 1980 to Ksh 5.14 in 1990, a rise of 212 per cent. When compared to the change in the 'consumer price index' in the same period, retail food prices rose more than the overall index (World Bank, 1991, 54).[11] Increases were even more rapid in the 1990s: from Ksh 5.14 in 1990 to Ksh 13.88 per kg in 1993, a rise of 170 per cent in three years (Table 3.1). Inflation during the same period showed an increase of only 127 per cent (Government of Kenya, 1996, Table 4.19).

These price developments underline the fact that, in contrast to elsewhere in Africa,[12] during the 1980-1993 period food consumers in Kenya were not protected from inflation.[13]

The last column of Table 3.1 indicates that maize producers received a share of the consumer price which fluctuated between 67 per cent (1983) and 42 per cent (1986 and 1992). Although the share was higher in the first half of the 1980s there is, however, no clear indication of the marketing sector[14] taking an increasing share of the consumer price during the 1980 - 1993 period. Rather the pattern is one of fluctuating shares.

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9 These prices are relevant for commodities (tradables) entering international trade. They represent a reference point in measuring the opportunity costs of a country's exports and imports. In a situation where imports and exports are completely liberalized, the 'parity maize pricing' policy is supposed to clear the market internationally. However, at the time the (official) producer price is fixed and announced, it is uncertain whether this price will eventually turn out to be the 'equilibrium price' Another complicating factor in the process of setting the right (market clearing) price is the wide price range between import and export parity prices, due to the extremely high transport and handling costs of maize in Kenya.

10 Consumer prices are the retail maize flour prices included in the Nairobi 'cost of living index' as published in the *Statistical Abstract*.

11 The maize consumer price index during the 1980s rose from 100 (1980) to 303 (1989) while the total consumer price index increased to 241 in the same period.

12 In Africa a policy of low, subsidized urban food prices was widely adopted.

13 Maize consumer prices after 1993 were not available at the time of writing as the *Statistical Abstract* of 1994 was the latest issue to have been published.

14 Defined here as encompassing all actors · traders, transporters and millers.

Table 3.1 Maize: Official producer prices, consumer prices, 'price spread' and producer's share, 1980-1993 (nominal prices)

Year	*Producer price (Ksh per 90 kg bag)*	*Consumer price (Ksh per kg)*	*Price spread (Ksh per kg)*	*Producer share (% of Cons.price)*
1980	86	1.65	0.70	57
1981	90	1.65	0.65	61
1982	96	1.92	0.86	55
1983	139	2.30	0.76	67
1984	158	2.78	1.03	63
1985	168	4.11	2.25	45
1986	178	4.65	2.68	42
1987	188	4.65	2.57	45
1988	193	4.77	2.63	45
1989	201	5.00	2.77	45
1990	239	5.14	2.49	52
1991	275	5.92	2 87	52
1992	428	11.25	6.50	42
1993	729	13.88	5 78	58

Sources: Producer prices are from *Economic Survey* 1987, 107 and 1997, 126. Consumer prices are from *Statistical Abstract,* 1991 and 1994 respectively, Tables 234 and 230. These are Nairobi retail prices for wholemeal *posho* maize

Note: 'price spread' is the consumer price minus the producer price in Ksh per kg.

As we saw, the 'outreach' of official pricing was restricted to NCPB operations and urban millers and consumers. Maize prices in rural Kenya were largely unaffected by official pricing, but determined by the prevailing local market forces of supply and (effective) demand.

A review of studies analyzing food price movements in these rural markets reveals substantial price variations, both regional and seasonal, even between adjacent areas (Meilink, 1987, 24ff). This finding supports the widely held view that the government's policy of restricting private food transports, within and across districts, has only worked to aggravate seasonal and regional price fluctuations in Kenya's rural markets (Schmidt, 1979; Maritim, 1982; Booker & Githongo, 1983; Ateng, 1984; Food supply monitoring project seminar, 1985). The variation of (uncontrolled) local market prices is illustrated in Table 3.2.

Average provincial prices for a bag of maize (90 kg) in different markets in the same year show an erratic pattern of variation. Here we consider the variation in the pre-reform period, recorded in the first four columns. In 1990 the differential between the highest price (Coast) and the lowest price (Nyanza) amounted to Ksh 108. In 1991 there was a difference of Ksh 210 between the highest price (Rift Valley) and the lowest price (Eastern). In 1992 the difference was extremely large: Ksh 642(!) between the high (Central) price and the low (Eastern) price. And in 1993 the price differential of Ksh 489 between the high (Eastern) price and the low (Nyanza) price also indicates the wide range of regional price variation in maize traded in the same year in various local markets in Kenya's rural areas. Clearly towards 1993, prices in all rural markets increased very rapidly (in many cases threefold in three years).

These policy considerations go far towards explaining the persistent reluctance, throughout the 1980s, to give in to pressures for marketing reforms emanating from the IMF and the World Bank regarding 'structural adjustment' conditionalities. Over the years numerous attempts to liberalize food marketing have been unsuccessfully tried (Mosley, 1991, 109).

But in 1987, when once again a reform proposal was formulated in the 'Cereal Sector Reform Programme' (CSRP) initiated by European Community donors, the Kenyan government seemed prepared to take action. The conditions attached to the World Bank's 'sectoral adjustment loan' agreed with the government in 1986 and the escalating costs of the NCPB's operations in the first half of the 1980s had certainly contributed to the readiness of the government to implement the policy change.[15]

The reform's aim was to scale down the role of the NCPB in maize marketing through a series of measures: a) the creation of a network of 'licensed buying agents' (LBA's)[16] who were allowed to purchase maize on behalf of the NCPB (and could also engage in maize trade on their own account) and along with this the reduction of the number of NCPB depots in the rural areas; b) to raise the amount of freely transportable maize from 2 to 10 bags across district boundaries; c) large urban millers were allowed to purchase 20 per cent of their maize supplies directly from traders and cooperatives (the remaining part still had to be purchased from the NCPB); and finally d) the financial position of the NCPB was to be improved by writing off of its accumulated debts to the Treasury (financed by the European Community) and the full subvention of the NCPB's future functions by the Ministry of Finance. Furthermore a 'crop purchase revolving fund' was to be introduced in order to enable the NCPB to make timely payments to farmers and trader agents.

NCPB tasks were scaled down to: a market stabilization function (through floor and ceiling market prices); to maintaining a national food security stock; and finally (continued) commercial operations in the maize market, in full competition with private traders. It was expected that financial support from the Treasury would enable the NCPB to reduce its into-depot and ex-depot margin while still being able to compete with private traders (Smith, 1992, 13).

By mid 1992, five years after the introduction of CSRP reforms, the progress made was far from impressive. Although restrictions on inter-district maize movements were further relaxed to free transportation of 44 bags in 1991 and raised further to 88 bags in 1992 (Argwings-Kodhek et al., 1993, 333), mention is made of the 'reluctance' of the district level bureaucrats to adhere to this measure and of the continued practice by local police of harassing traders and demanding fines (Lewa & Hubbar, 1995, 576). Moreover, in October 1992 the movement of maize was entirely banned before the December 1992 elections and not lifted until the end of 1993 (ibid, 575). This exemplifies the strong involvement of 'Kenyan high politics' in food marketing issues.

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15 The European Community financed the Cereal Sector Reform Programme (CSRP) which was carried out in the period 1988-1992 . Other donors such as the World Bank, USAID and the IMF also participated.

16 This was not a new phenomenon as in the early 1980s, prior to the establishment of the NCPB buying centres, LBAs were also appointed, They later gave way to the new NCPB depots.

3.5 A liberalized maize market?

Although only a few years have passed since the effective liberalization of the maize market (in 1994), a number of profound changes have occurred affecting the various actors in the maize marketing chain (the NCPB, farmers, traders, millers and consumers) in different ways. These changes must now be reviewed.

The NCPB

One of the pressing problems to be solved in the liberalized maize market is the new design of the state marketing agent (NCPB) now facing competition from the private sector. Events in the first years testify to the difficulties the Kenyan authorities had with accepting the new conditions. In particular, there was a growing fear that food policy objectives (that is ensuring food security, especially in urban areas) would be jeopardized under the new system.

The NCPB had actually lost ground in maize marketing in the early 1990s. In 1989 about 24 per cent of the total maize production was delivered to the board but by 1993 this had fallen to a mere 15 per cent (Ikiara, 1995, 37). In an attempt not to be outdone by the private traders, the government decided to raise the NCPB's buying price to Ksh 855 (per 90 kg bag) for the following agricultural year. However, in that year (1994/95) Kenya experienced a bumper maize harvest of over 3 million tons due to favourable rainfall. In addition, large volumes of maize (8 million bags) were imported after the drought of 1992/93. Private traders, responding to the liberalized import policy, imported 3 million bags themselves. As a result of this abundant supply, retail prices dropped spectacularly from Ksh 1,400 per 90 kg bag in June 1994 to Ksh 400 in January 1995 (EIU, 1995, 17).[17] Though favourable for consumers, the maize producers suffered from not being able to sell their surplus maize and complained bitterly.[18]

In 1995 the government reacted by instructing the NCPB to accelerate its purchases from farmers in order to secure their market outlets. This exercise added an estimated Ksh 3 billion ($ 8 million) to public spending (although farmers had to wait several months for their money) and also added to the irritation of the donors, who once again witnessed increased government intervention in the maize market.

In late 1995, President Moi, responding to renewed donor pressure, announced major changes with regard to NCPB operations. It was directed to buy and sell maize only at market prices from then on and to continue to keep a strategic reserve of 3 million bags for food security reasons. Furthermore he promised the donors that the board would be fully commercialized by the end of 1996 and that it would be free to export maize to fund its payments to farmers (in October 1995 the board still owed maize and wheat farmers an

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17 Since production costs were between Ksh 450 and Ksh 1000 per 90 kg bag depending on the region, farmers had to sell at a loss.

18 The Minister for Agriculture, Mr Simeon Nyachae, imposed a 6-month ban on imports in August 1994 to ensure a market outlet for Kenyan producers. Soon, however, the ban was lifted and replaced by an import duty and a dumping tax (*The Daily Nation*, 29/11/1994).

Table 3.3 Kenya: Post-reform official producer prices for maize (1993-1996; nominal prices)

Year	*Ksh per 90 kg bag*
1993	729
1994	855
1995	720
1996	950

Source Economic Survey, 1997, 126, derived from Table 8 4

For farmers (and consumers) in the local, rural markets, prices during the reform period showed quite a different pattern, as is illustrated by the last three columns of Table 3.2. Rapidly increasing prices in the structurally maize-deficit Coast province are striking. Throughout the reform period prices here were far higher than in any other province in Kenya. There is little evidence in Table 3.2 to suggest that farmers and rural consumers elsewhere (outside Coast Province) faced less regional price variability in the first years of trade liberalization than before. In 1994 the regional differential between the highest and lowest market price amounted to Ksh 792. In 1995 it was only Ksh 89 but in 1996 it went up to Ksh 489 per 90 kg bag.

The traders

The large majority of maize traders in Kenya are locally based retailers and small market traders who typically handle between five and ten bags a week with a working capital of no more than Ksh 10,000 ($200). Trade activities are not confined to maize only. Most traders combine it with the buying and selling of wheat, beans, millet, sorghum, rice, cassava and potatoes. The majority hire transport (*matatus* or minibuses, handcarts or pick-ups) to move the maize to the selling points. The latter may be a NCPB buying centre or alternatively a local market. Generally it has been felt that the most profitable activity was retailing, in contrast to buying maize at the farm-gate and transporting it further along the trade channel (Ikiara, 1995, 61).

The only traders involved in inter-district trade are the larger transporters/distributors. Most of them own lorries and trucks and many are involved in maize transports to and from the large mills and also in international trade with Tanzania and Uganda whenever price differentials allow profitable operations. As noted above, in 1993, large volumes of maize flour flowed into the country, mainly from Uganda as a result of import liberalization following the 1992 drought. Liberalization was generally welcomed by the larger traders who reacted by importing massive volumes of maize from Uganda (EIU, second quarter 1995, 15).[19]

Unfortunately, not much is known about the evolution of inter-district maize movements after the reforms. Therefore the important question as to whether small-scale traders have been able to expand their role in the maize trade remains largely unanswered.

[19] Later the Kenyan government reimposed a ban on maize imports after complaints by the large farmers.

liberalization,[21] indicate that between the surveys, the price of sifted meal dropped from Ksh 20.70 per kg to Ksh 15.33 (-26 per cent) and for wholemeal even more, from Ksh 14.46 to Ksh 9.71 (-33 per cent). It was estimated that 40 per cent of this decline could be attributed to the lower milling margins and 60 per cent to lower maize grain prices resulting from the good 1995 harvest. Jayne & Argwings-Kodhek (1997, 451) estimate that the total gain to Nairobi's consumers amounted to Ksh 525 million (over $10 million) in one year. They conclude that the removal of subsidies on roller milled maize meal was largely compensated for by the lifting of restrictions on private maize movements and that urban food security improved as access to cheaper whole maize flour increased (ibid, 456).

But whether rural households have also been able to benefit from increased maize supplies at lower market prices remains uncertain due to a lack of empirical research. Table 3.2 provides an inconclusive picture. Although in all provinces (except the Coast) prices dropped considerably in 1995, they rose again in 1996 in most provinces.

3.6 Conclusions

Since the decision to fully liberalize the Kenyan maize market was taken as late as December 1993, the time period over which I have been able to assess the outcomes of the reforms has been rather short. Therefore my conclusions must be tentative. Despite profound changes in maize trade and maize processing, the reform process has not yet been completed. The maize marketing board, the NCPB, is still far from being 'commercialized'. This state body continues to set the annual maize price for producers and also continues to purchase a proportion of the total marketed maize. It seems that the government is still hesitant and lacks the political commitment to scale down the NCPB's role to one of 'buyer and seller of last resort'.

There is a need, on the part of the Kenyan government, to be more explicit and establish a consistent policy with regard to the future role of the NCPB in the maize sector. (The haphazard policies of the past have discouraged private investors.) There is also an urgent need for a balanced policy concerning external maize trade and local production stimuli. The events of 1993/1994 were a frustrating experience for Kenya's maize producers as they lost a substantial part of their market sales when private traders and large millers were allowed to import maize freely and cheap imports flooded the country. Although, later, measures were taken to restore market outlets for Kenyan farmers, it illustrates that a complete and swift liberalization of maize imports may undermine incentives for badly needed growth in domestic production. In this context the observed decline in planted maize hectares in 1995 and 1996 (see Appendix) is a disturbing signal. Clearly, market reforms need to generate a positive supply response among producers. If not, fully-fledged liberalization will merely end up jeopardizing national food security objectives.

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[21] The two random household level surveys were organized by a joint team of Egerton University and Michigan State University. Details may be found in Jayne & Argwings-Kodhek (1997).

GOVERNMENT OF KENYA (1981) 'National Food Policy'. Sessional Paper No. 4 of 1981. Nairobi: Government Printer.

GOVERNMENT OF KENYA (1988) 'Household Food Security and Nutrition Policy'. Ministry of Agriculture and Ministry of Livestock Development.

GOVERNMENT OF KENYA (1994) *Statistical Abstract.* Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development.

GOVERNMENT OF KENYA (1994) *Economic Survey.* Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development.

GOVERNMENT OF KENYA (1995) *Economic Survey.* Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development.

GOVERNMENT OF KENYA (1996) *Economic Survey.* Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development.

HEYER, J., J. MAITHA & W. SENGA (1976) *Agricultural Development in Kenya. An Economic Assessment.* Oxford: Oxford University Press.

IKIARA, G., M. JAMA & J. AMADI (1993) 'Agricultural Decline, Politics and Structural Adjustment in Kenya'. In P. Gibbon (ed.) *Social Change and Economic Reform* Uppsala: Nordiska Afrikainstitutet, pp. 78-106.

IKIARA, G., M. JAMA & J. AMADI (1995) 'The Cereals Chain in Kenya: Actors, Reforms and Politics'. In P. Gibbon (ed) *Markets, Civil Society and Democracy in Kenya.* Uppsala: Nordiska Afrikainstitutet.

IKIARA, G. (1998) 'Rising to the challenge: the private sector response in Kenya'. In P. Seppala (ed.) *Liberalized and Neglected? Food Marketing Policies in Eastern Africa.* The United Nations University, Wider, World Development Studies 12.

JABARA, C. (1985) 'Agricultural Pricing Policy in Kenya'. In *World Development,* Vol. 13 , no. 5, pp. 611-626.

JAYNE, T. & S. JONES (1997) 'Food Marketing and Pricing Policy in Eastern and Southern Africa'. In *World Development,* Vol. 25, no. 9, pp. 1505-1527

JAYNE, T. & G. ARGWINGS-KODHEK (1997) 'Consumer Response to Maize Market Liberalization in Urban Kenya'. In *Food Policy,* Vol. 22, no. 5, p. 447-458.

KARANJA, D., J. RUTTO & K. NJOROGE (1992) 'Research Opportunities for Maize Productivity Growth in Kenya'. In *Proceedings of the Conference on Maize Supply and Marketing under Market Liberalization,* held at the Kenya Commercial Bank, Institute of Banking and Finance, Karen- Nairobi 18-19 June 1992, Egerton University, Policy Analysis Matrix, pp. 139-147.

KLIEST, T. (1985) *Regional and Seasonal Food Problems in Kenya.* Nairobi: Food and Nutrition Planning Unit, Ministry of Finance and Planning, and Leiden: African Studies Centre, Food and Nutrition Studies Programme, no. 10.

LEWA P. & M. HUBBARD (1995) 'Kenya's Cereal Sector Reform Programme: Managing the Politics of Reform'. In *Food Policy,* Vol. 20, no. 6, pp. 573-584.

MARITIM, H. (1982) *Maize Marketing in Kenya: An Assessment of Interregional Commodity Flow Pattern.* PhD No. 112. Berlin: Technischen Universitat.

MEILINK, H. (1985) *Agricultural Pricing Policy in Kenya: Scope and Impact.* Nairobi: Food and Nutrition Planning Unit, Ministry of Finance and Planning; Leiden: African Studies Centre, Food and Nutrition Studies Programme, no. 11.

Appendix on maize production in Kenya

Maize acreage, production and yield, 1976-1996

Year	*Million hectares*	*Million tonnes*	*Kg/hectare*
1976	0.950	1.800	1890
1977	0.853	1.743	2043
1978	1.002	2.080	2070
1979	0.875	1.740	1980
1980	0.839	1.604	1912
1981	1 120	1.768	1570
1982	1.208	2.502	2070
1983	1.236	2.340	1890
1984	1 200	2.070	1720
1985	1.130	1.411	1240
1986	1.370	2.430	1770
1987	1 430	2.890	2020
1988	1.440	2.450	1700
1989	1.420	2.628	1850
1990	1.449	2.290	1580
1991	1.471	2.340	1591
1992	1.470	2.430	1727
1993	1.308	2.089	1597
1994	1.500	3.060	2040
1995	1.380	2.699	1956
1996	1.300	2.160	1662

Sources: (a) Government of Kenya, *Statistical Abstract*, various issues.
(b) FAOSTAT database for the 1990-1996 period.