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LIVESTOCK DEVELOPMENT AND MARKETING

Sessional Paper No. 3 of 1993

ON

NATIONAL FOOD POLICY

OCTOBER 1993

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TABLE 1: PROJECTED NATIONAL FOOD REQUIREMENTS FOR THE YEAR 2000

	CONSUMPTION		ENERGY/PROTEIN PER 100 GRAMS	NATIONAL FOOD REQUIREMENTS IN YEAR 2000	
	KG/PERSON/YEAR URBAN	125.6		Cal. g Prot. per person per day	per person per day
MAIZE	97.1	125.6	345	3,676	1,131.51
MILLET/SORGHUM	0.0	19.8	327	482	140.65
WHEAT	24.7	10.0	333	401	119.04
RICE	13.1	1.4	333	117	34.89
POTATOES	14.8	26.4	74	737	48.66
OTHER ROOTS	3.0	30.5	110	762	74.76
PULSES	13.8	14.2	320	434	123.78
SUGAR*	20.6	10.4	375	660	220.80
MILK**	88.6	72.1	79	2,795	196.98
BEEF	11.9	6.8	234	241	50.38
FAT	6.5	1.7	700	83	51.68
VEG	36.9	20.4	21	732	13.71
FISH	1.9	1.7	115	53	5.49
					2,212.32
					64.77

*, **Per capita consumption figures in the table appear to be underestimated.

Assumptions:

Sugar demand estimated on basis of 21.4 kg per caput per yr. Milk demand estimated on basis of 91 lt per caput per yr. Liquid milk and milk products expressed in whole milk equivalent.

Urban population will increase from 3.8 m. in 1989 at the rate of 4.8 per cent per year. Hence urban population by year 2000 will be 6.364 million compared to 24.35 million rural population.

SECTION 1

INTRODUCTION

Objectives

1.1 The major national objectives in Kenya's development policy are food self-sufficiency, food security, employment creation, income generation, generation of foreign exchange earnings, rural-urban balance, and overall growth.

1.2 In view of the rapid population growth and the increasing demand for food, food production and food security will remain key priorities in the agricultural sector. Other important objectives of the sector will continue to be the generation of raw materials for domestic industry and agricultural exports and contribution towards the national objectives indicated above.

1.3 Food security is basic to the survival of any nation, not to mention any family or individual. Accordingly, within the list of national, family or individual goals, that of food security should have top priority since no meaningful development in economic, social or cultural spheres is possible without food security. An economy based on agriculture, as is the case in Kenya, must allocate sufficient resources to its agricultural sector to ensure that national food security is achieved, through self-sufficiency in the production of basic food commodities and the generation of foreign exchange which can be used for the importation of other foods, and the occasional importation of basic food when the need arises.

Recent Performance of the Agriculture Sector

1.4 The policies on food stated in Sessional Paper No. 4 of 1981 on National Food Policy, and consolidated in the Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth oriented towards food production and distribution have broadly been attained in years of good weather.

1.5 Over the decade 1980 to 1990, agricultural production as a whole grew at an average rate of 3.5 per cent per year. The rate of growth was 4.0 per cent per year over the period 1986 to 1990. Considerable progress in the expansion of food production was achieved through the use of hybrid maize and an increase in the number of improved cattle. Tea production grew from 73,000 tonnes in 1980 to 197,000 tonnes in 1990, making Kenya the world's third largest exporter. Coffee production over the same period increased from 51,900 tonnes to 112,000 tonnes. Both Kenyan tea and coffee are renowned for their quality and frequently trade on world markets at prices

SECTION 6

THE DECISION-MAKING FRAMEWORK

6.1 One of the factors contributing to the periodic food deficits with which Kenya has been confronted since independence has been the lack of appropriate and timely decisions on producer and consumer prices and on import and export programmes to cater for deficits and surpluses. The decision-making framework in these two critical areas needs to be more clearly defined to prevent repetition of food shortages.

6.2 Decision-making for minimum producer prices for the main staple food commodities is centred on the Annual Agricultural Price Review. The Ministry of Agriculture, Livestock Development and Marketing is required by law to announce producer prices in advance of the crop season for all scheduled crops and commodities. In the future, this annual review will cover only those commodities for which minimum producer prices will apply. However, in order to prepare effective policy intervention strategies in the agricultural sector, careful monitoring of all agricultural commodities will be mandatory.

6.3 The Ministry of Agriculture, Livestock Development and Marketing will continue to prepare the basic analysis of production, processing and distribution costs and movements in international market prices as a basis for determining import and export parities.

6.4 Decisions on minimum producer prices will be made within the framework of the Review. In the event that there is a need for ad hoc price revisions within the year to reflect changed circumstances, such revision will follow the same review procedure.

6.5 Consumer prices for food commodities are no longer controlled with the exception of maize which will be abolished in 1994. The responsibility for decisions on consumer prices has been with the Ministry of Finance. The Ministry's Monopolies and Prices Commission will monitor the marketing of agricultural commodities to discourage monopoly/monopsony elements and promote competition.

6.6 Steps have been taken to define more clearly the reporting and decision-making procedures for the supply of the main staple foods. Overall responsibility for maintaining adequate supplies rests with the Ministry of Agriculture, Livestock

extension and similar infrastructural support and services, farmers must be accorded adequate incentives to motivate them to produce food sufficient to meet national requirements.

1.9 Moreover, the last three years have demonstrated that pressure on the economy and food security in particular, can come from unexpected sources as the following three examples illustrate. Firstly, the political instability in the region which brought an exodus of refugees into the country from neighbouring countries in 1992 put considerable pressure on available supplies of food. Secondly, the withholding of external aid by donors from 1991 denied the country foreign exchange resources for use in financing food imports. Thirdly, the pressure exerted by donors on political reform and the structural adjustment process has resulted in considerable changes in the priority allocation of domestic resources. From these examples, it is clear that the country needs to put increased emphasis on self-sufficiency in food to avoid being held at ransom by external forces.

Food Security Strategy

1.10 In order to meet the above sectoral objectives, Kenya's agricultural development strategy is aimed at the continued expansion of productive investment, through growth in agricultural outputs and conservation of scarce natural resources to ensure their sustainable utilization.

1.11 There is a clear need for the country to continue with the major policies spelt out in Sessional Paper No. 4 of 1981 on National Food Policy which set guidelines for decision-making on all major issues related to food production and distribution. The overall objectives of this policy were to:-

- Maintain a position of broad self-sufficiency in the main foodstuffs in order to enable the nation to be fed without using scarce foreign exchange on food imports.
- Achieve a calculated degree of security of food supply for each area of the country.

- Ensure that these foodstuffs are distributed in such a manner that every member of the population has a nutritionally adequate diet.

1.12 It is essential that the food policy continue to be consistent both internally and with the broad objectives of national development. This is important because it has implications for the attainment of other national objectives, such as high levels of employment, a more equitable distribution of income, optimal resource allocation and the maintenance of a sound balance of payments position.

Agricultural and Livestock Credit

5.7 Upon establishing an agricultural development bank under the AFC, the Government will need to inject share capital into the bank. Funds will also be required to set up the Crop and Livestock Insurance facility and the Agricultural Loan Guarantee Fund. In addition, the Government will need to provide finances for subsidized credit to small-scale farmers for promoting food production.

Infrastructure

5.8 The Government will require to substantially increase funds allocated to the maintenance of rural and trunk roads particularly in areas of high agricultural and livestock production potential.

5.9 In order to develop irrigation potential along lakes and rivers, the Government will need to share the initial costs of bringing power supply lines to those areas with the Kenya Power and Lighting Company.

Weather Monitoring

5.10 Improving the services of the Meteorological Department will require additional funding.

Marketing Information

5.11 The Ministry of Agriculture, Livestock Development and Marketing will require additional funding to support the development of a strengthened marketing information system.

Health and Nutrition Education

5.12 The Ministries of Education and Health, and the Ministry of Agriculture, Livestock Development and Marketing will need additional funding for increased health and nutrition education.

NCPB's Storage Facilities

5.13 The formal marketing system managed by the NCPB has changed substantially since the liberalisation programme of the cereal sector started. Presently, NCPB owns 104 depots with a storage capacity of 19 million bags. Under the second phase of the Cereal Sector Reform Programme, NCPB will rationalize this capacity. There are possibilities of disposal or renting out capacity that is not required by NCPB. This measure would imply reduced overheads for the Board and a corresponding reduction in the amount of subvention required from the

constant review of these rates is stressed. The possible means by which production can be increased are then considered and the required expansion in marketing capacity is estimated.

1.19 In Section 3, a policy framework is developed for each of the major areas of food production and distribution, encompassing pricing and marketing, agricultural inputs, research and extension, food security, processing, trade, nutrition, resource development, and incentives.

1.20 Section 4 indicates the programmes that require to be implemented or strengthened in order to achieve the goals of the National Food Policy.

1.21 Section 5 gives, at a general level, the financial implications of the major programmes required.

1.22 Section 6 is a description of an appropriate framework for government decision-making concerning production, pricing and marketing and distribution.

surveys and monitoring of the nutritional status of the population.

and inadequate machinery services for land preparation and harvesting, have prevented expansion in production. The country continues to depend on imports for 50 to 60 per cent of annual requirements.

2.5 Sugar production is below self-sufficiency requirements. Production increased from 308,000 tonnes in 1982 to 432,000 tonnes in 1990. With the exception of 1986 when imports reached 142,500 tonnes, they were insignificant in most years over the period, ranging between nil and 80,000 tonnes. Production in 1992 was 372,000 tonnes compared to 434,000 tonnes in 1991. In 1993, production is expected to be about 350,000 tonnes. The sharp decline in domestic production has been caused primarily by inadequate investment in cane development in the sugar industry. Imports in 1992 were 130,000 tonnes and may reach 150,000 in 1993. The country is, however, in the process of rehabilitating Nzoia, Sony and Miwani sugar factories and expanding existing processing facilities in addition to establishing new sugar processing facilities with a view to satisfying domestic demand. The crushing capacity Nzoia sugar factory is being expanded from 3000 to 7000 tonnes of cane per day while there are plans to expand Sony from 3,400 to 5,400 tonnes of cane per day.

2.6 Over the decade 1980 to 1990, rice production in irrigated schemes stagnated around 21,000 tonnes of milled rice per year. Rainfed rice production now accounts for an additional 6,000 tonnes per year. National consumption requirements are estimated at 60,000 tonnes of milled rice per year and imports account for about 55 per cent of requirements.

2.7 Recorded milk production increased from 260 million litres in 1982 to 316 million litres in 1986 and to 392 million litres in 1990. Except in years of drought when imports of dry milk powder have been necessary, production has generally been sufficient to meet demand. Total production was estimated at 2.4 billion litres in 1990 of which about 60 per cent entered the formal marketing system. A large proportion of the remaining 40 per cent would have entered the formal market, had roads been in place and factory intake capacity been adequate. Milk pricing and marketing was liberalized in May 1992.

2.8 Beef is the most important meat consumed in the country. Production in 1990 was estimated at 228,000 tonnes. Pricing was liberalized in 1987 and the market has behaved quite well, with consumer prices responding to the supply versus demand circumstances. Mainly due to financial problems and clinging to outdated policies, the Kenya Meat Commission (KMC) did not live up to expectations of an export slaughterhouse. KMC is no longer a monopoly in the meat trade.

Programme to Improve Weather Monitoring and Dissemination of Weather Information

4.79 The Kenya Meteorological Department is the main institution charged with the responsibility of generating meteorological and climatological information above, in addition to providing services to civil aviation and for shipping routes in the Western Indian Ocean. Although the facilities currently available at the Department have been improved considerably making it one of the leading institutions in Africa for this kind of work further improvements are required to make it even more effective.

4.80 The Meteorological Department will continue to monitor, through an expanded station network, meteorological parameters critical for crop development, including rainfall, evaporation, soil temperatures and surface winds.

4.81 There is need to expand meteorological stations in the rural areas to support those already existing in the large urban areas. An information dissemination system at the district level will be required to improve information on weather for the farmers and extension staff.

4.82 Computerised facilities that link our system with the regional and global networks will be designed to provide advance information on impending weather changes on a day to day basis.

Programme to Improve National Food Security

4.83 Kenya is committed to the maintenance of food reserves to safeguard food security. The most important reserves will be maize, beans, wheat, sugar and milk powder. To reduce the cost of purchase and storage, the reserve physical stocks will be maintained at levels just adequate to cover the import lead time of six months. In addition, the Treasury will maintain, at all times, a foreign currency Food Import Fund sufficient to meet import requirements for at least three months.

4.84 The basic agricultural commodities to be promoted can be classified as, meeting internal self-sufficiency, strategic reserves and surpluses for export.

4.85 First, basic food crops will be promoted principally to meet internal self-sufficiency and strategic reserve needs of the nation. Second, major cash crops, namely tea, coffee and horticulture will be produced mainly for export. And third, industrial raw materials will be produced primarily to feed existing and emerging industries which will also require strategic inventories to smoothen production, with some surpluses being exported after processing.

2.13 To maintain a position of self-sufficiency in maize up to 2000, production capacity will need to expand by at least 4.0 per cent per annum and probably at a rate considerably in excess of this. Rates of growth of this magnitude have in the past been achieved in Kenya only during the brief period of rapid adoption of hybrid maize. There are few examples of countries sustaining such rates of growth in the production of their staple foodstuffs over extended periods.

2.14 The high rates of growth required in the production of wheat and rice reflect both the fact that the nation is short of self-sufficiency in them and that, per capita demand is expected to grow over time, leading to production requirements increasing at a rate greater than that of population growth. Similarly, rising per capita demand for milk, beef and beans will require a high rate of production growth if self-sufficiency is to be maintained.

2.15 In summary, Table 1 shows the high rate of overall expansion in the production of foodstuffs required to meet growing domestic demand. The high rates of growth required also highlight the necessity to sustain the expansion in production through the remainder of the decade and beyond if self-sufficiency is to be achieved. Few countries have been able to sustain such growth in food production and the need to do so presents Kenya with a formidable challenge.

2.16 To ensure that growth targets are realistic and that adequate measures are undertaken to meet them, the estimated growth rates require to be reviewed regularly to ensure that they reflect the reality as closely as possible.

Nutritional Considerations

2.17 The above forecasts of food requirements are based on market demand and take no account of the nutritional requirements of the population.

2.18 The average daily per capita food intake provided an estimated 2,020 calories and 54.6 grams of protein in 1979-81. In 1986, the national food intake embodied an estimated average daily per capita intake of 2,089 calories and 62 grams of protein. In 1987-88, the per capita daily intake was estimated at 1,799 calories and 51.9 grams of protein, indicating a significant decline.

2.19 In 1990, the minimum per capita nutritional requirement was an estimated 2,111 calories and 63 grams of protein. Current demographic changes involve a reduction in the age population growth as well as small changes in the age distribution. The annual population growth rate declined from 4 per cent over the period 1969 to 1979 to 3.34 per cent

which has been introduced for Nairobi and Eldoret will be expanded.

4.68 The Government will promote the orderly development of the private sector in the marketing of agricultural commodities, including livestock. One means of achieving this will be to facilitate the establishment of a programme of training and commercial credit for commodity dealers to take over the functions of food storage, marketing and distribution from public institutions.

4.69 The programme to expand the role of co-operatives in maize and milk processing and distribution will continue.

4.70 The price mechanism plays a crucial role in ensuring that domestic food production is adequate to meet consumption requirements. In the past, the producer and consumer prices of the main staple foods were fixed by Government. This control will not be continued, with the exception of minimum (floor) producer prices for maize, wheat, sugarcane and rice paddy, which will continue to be reviewed annually by the Ministry of Agriculture, Livestock Development and Marketing and will be fixed at levels which are sufficiently attractive to farmers to stimulate domestic production to achieve a level of broad self-sufficiency. Subsidies will only be used to meet the losses incurred on imports and in supporting purchases of surplus maize during glut periods. A programme to improve the decision-making framework for price policy is described separately below.

Programme to Establish an Information System

4.71 The critical importance of accurately monitoring the overall food supply position is well recognized by the Ministry of Agriculture, Livestock Development and Marketing. The Ministry will develop a comprehensive food information and reporting system. Suitable donors will be approached to fund this programme.

The Programme will provide:-

- Early warning to Government, the private sector and parastatals on emerging crop or livestock conditions which could result in either shortages or excess supply of major food commodities.
- Reliable and timely information on the availability and use of major agricultural inputs, including fertilizers, seeds, chemicals, credit and land preparation services.

4.72 The programme will be implemented by the extension service of the Ministry of Agriculture, Livestock Development and

them being essential for national development. Nor should there be further destruction of forests, which must be retained for ecological reasons. This means that in order to meet the required output growth rates for milk and maize, the per hectare yields will have to increase more rapidly. For maize the necessary growth rates are achievable provided there is widespread adoption of the already available high-yield seed varieties and more intensive and extensive use of fertilizer. For milk, however, the achievement of the necessary expansion will only be possible through intensive feed-based dairy keeping, improved transport system and better processing capacity. Under the Sixth Development Plan (1989 - 1993) strategies have been applied laying emphasis on development of drought resistance crops for ASAL areas including sorghum, millet, sweet potatoes, pulses and oilseeds. The ASAL areas include most of the Eastern and North Eastern Provinces.

2.26 Although in Nyanza and Western Provinces there is still some scope for expansion in the area devoted to the production of food, land availability is also rapidly becoming a constraint. As in Central and Eastern Provinces, increases in food production must rely largely on intensification and increased yields.

2.27 There is some potential for expansion in Rift Valley and Coast Provinces, where considerable tracts of land are either idle or under-utilized. Expansion of the area devoted to intensive food production, as well as increases in yields, will be an important means of expanding food supply in these provinces. Resources will be required and measures taken to ensure that these sources are exploited to the full.

2.28 Intensive production of food will also be achieved through the development of the country's full potential of small-scale irrigation and drainage.

2.29 During the next decade, however, expansion of food production will need to be based primarily on increases in yields. The aim is to set rolling a "green revolution".

This may be achieved by:

- increasing inter-cropping;
- increased multiple cropping;
- improved soil analysis and increased and efficient use of fertilizers;
- increased use of other inputs;

a continuing programme to develop fisheries further as a source of both food and, in the case of coastal fisheries, expanded exports. Farmers will be encouraged to develop fish ponds for the production of fish for home consumption and/or for commercial sale. The development of poultry, game and non-conventional sources of meats will be intensified. The Ministry of Agriculture, Livestock Development and Marketing will popularize the production and consumption of these types of meats through its extension services.

Programme to Improve and Expand Food Processing Facilities

4.58 To overcome the limitations in the present agricultural marketing system, liberalisation will be continued over the next five years. This will be accomplished through the removal of movement controls on maize, among other factors.

4.59 In this respect, the NCPB will be exposed to increasing competition in the short to medium term. In the long-term, its functions will be limited to the maintenance of the strategic reserves and buyer of last resort, thus leaving over 75 per cent of the market to private traders, millers and co-operative societies.

4.60 There is need to increase the production and commercial offtake of milk. Producer co-operatives and private individuals will be encouraged to participate in the dairy industry by the issuing of licenses to process and distribute milk. This will serve to increase production of offtake and minimize processing and distribution costs and, hence, consumer prices.

4.61 KMC is an important instrument for the implementation of national meat production programmes and policy measures will be aimed at maintaining it as a viable institution.

4.62 Horticultural processing facilities will be developed further to cater for domestic and export markets. The HCDA is undertaking the establishment of processing facilities alongside horticultural production centres. Wholesale markets for fresh fruits and vegetables have been established in most urban centres and this process will continue in the future.

4.63 The Kenya Bureau of Standards will continue to implement comprehensive quality controls, which will apply to all food processing operations. Measures will also be taken to prevent misleading advertising and promotional campaigns which exaggerate the nutritional qualities of processed food products.

available for export after priority internal consumption and strategic reserve needs have been met.

2.35 To support the storage, marketing and distribution of the increased production, the development of additional storage and marketing capacity is required. Most of this capacity will be required for cereals, legumes, horticulture, milk and beef. Current storage facilities in the country under the public and private sectors are more or less adequate for the present population size under the scenario of no futures trading. But to increase and improve marketing and storage capacities to cater for the requirements of the population by the year 2000, including gradual development of futures trading capacity, it is estimated that marketing and storage capacities need to be increased by more than 25 per cent above current levels. The investment in physical facilities will come largely from the private sector but the public sector will require to play a key role in facilitating the development of private sector participation through training of commodity dealers and access to long-term credit. The Government will also need to set the necessary environmental health standards and undertake the necessary regulatory inspection of facilities.

Household Food Security Considerations

2.36 The availability of adequate supplies of food at the national level will not ensure access to food by households and individuals. The ability of households and individuals to obtain sufficient food will depend among other factors, on whether they grow their own food and their ability to generate other forms of income. Macroeconomic policy will impinge on household food security through its effect on job creation, income growth, population growth, education, health, etc. The structural adjustment programmes (SAPs) being undertaken will continue to have important repercussions on household food security. The implementation of such SAPs should include a strong social dimensions facility to assist targeted vulnerable groups to maintain or improve their access to adequate diets. The definition and identification of vulnerable groups should be reviewed regularly to ensure efficient targetting of assistance.

Programmes on Research in Agroforestry

4.43 Research to identify local multipurpose trees (MPT) and shrubs will be intensified as well as their efficient propagation methods. Multipurpose trees fertilize the soil and they can be used as fodder for livestock and even serve as firewood, building poles, etc.

Programmes on Livestock Breeding

4.44 Research on productive traits for both milk, meat and eggs will be intensified in relevant species.

4.45 Breeding for disease resistance is a much more difficult proposition but essential. Studies will be initiated to sample local breeds that are resistant to local diseases. These will be used for crossing purposes to impart resistance to more productive breeds.

Programmes in Animal Diseases Research

4.46 Animal diseases play a major role in limiting livestock production through reduced production or death. Efforts will be intensified to find affordable reliable and efficient vaccines for Foot-and-Mouth Disease (FMD), Contagious Bovine Pleuropneumonia (CBPP) and Contagious Caprine Pleuropneumonia (CCPP), among others.

4.47 Trypanosomiasis is a major debilitating disease of cattle and camels. Efforts to identify the environmentally friendly method of controlling the vector tse tse flies will be intensified.

4.48 Worm burdens are a serious threat to young calves and small stock particularly during rainy weather and when stock are living in unhygienically high concentrations. Efforts to find suitable strategic dosing regimes will be continued for every ecozone.

Programmes on Research in Animal Nutrition

4.49 Nutrition is a major problem for both monogastric and ruminant farm animals in Kenya. Efforts to develop on farm concentrate feeds for ruminants, pigs, and poultry will be intensified. The search for an alternative source of energy will go a long way towards eliminating the competition between man and animals for maize.

4.50 Forage forms the bulk feed for milk production. Intensified research to find suitable forage species particularly for dry areas will be a major focus. Use of crop residues by livestock will be investigated for recycling purposes.

Grain marketing will be liberalised. This will involve the removal of the movement permits and their replacement by licensing of commodity dealers, who may be private companies or co-operatives, and who will deal with cereals in both producing and consuming areas. This licensing will not affect small traders.

A training and financial assistance programme will be put in place for commodity dealers to enable them to take over successfully the storage, marketing and distribution of cereals from public institutions.

In the short to medium term, The NCPB will remain an active participant in grain marketing. In the long-term, however, the NCPB will become a "buyer and seller of last resort". For its normal trading, NCPB will operate on commercial principles. However, whenever there is a bumper crop which NCPB and other traders cannot handle under normal trading, then the Government will assist NCPB financially for the purchase of that crop. The NCPB will keep separate accounts for these different activities.

The activities of the Livestock Marketing Division will be confined to assisting pastoralists in difficult areas where private traders cannot operate profitably. In order to cut down on the loss of weight and quality of beef animals from excessive trekking, the Government will encourage private entrepreneurs to set up slaughterhouses in the beef production areas, with the meat being moved in refrigerated trucks to central marketing places. The private sector including farmers will be encouraged to become majority shareholders in KMC. The intention is to encourage farmers and other private people to participate actively in the management and marketing of meat.

To improve services to farmers and consumers, the monopoly of KCC in milk processing and marketing will be reduced by licensing other milk processors and marketers, subject to meeting the legally required sanitary standards. The Kenya Dairy Board will be restructured to become more responsive to the needs of the dairy industry, accountable to milk producers, processors and the Government. The restructured Board will undertake the role of regulating the dairy industry more effectively and efficiently. The Government will also implement other facets of the Dairy Development Master Plan. The Dairy Act (Cap.336) will be reviewed to harmonize it with a liberalized dairy industry.

The maintenance of rural roads will be improved to facilitate the marketing and distribution of food. Other

4.28 It has been estimated that approximately 16 per cent of small-holder maize production is lost during the post-harvest period, either through insect and rodent damage or mould. A start has been made on a programme to encourage better handling and storage of crops, at the farm level. The aim of the programme will be to reduce these losses by 50 per cent by year 2000. If successful this will increase the volume of maize available for consumption by some two million bags (220,000 tonnes).

4.29 Extension programmes will be geared to make farmers aware of the advantages of combining traditional and modern materials and techniques of constructing on-farm stores.

4.30 Under NEP II short training courses in storage methods will be conducted for farmers and dealers and extension staff of the Ministry of Agriculture, Livestock Development and Marketing by the Crop Storage Unit of the Ministry.

4.31 The Ministry of Agriculture, Livestock Development and Marketing will continue to improve its livestock extension activities, giving priority to extension and demonstrations designed to improve management practices and to encourage the introduction of high-quality stock under NEP II.

Programmes to Intensify Research on Food Production

Programmes on Food Crops Research

4.32 Plant breeding is a gradual process of variety generation. There has been concern on the performance of available maize seed, particularly the 500 series and efforts will be made to revitalize these series through breeding as well as have a fairly broad base for other maize varieties.

4.33 Although maize accounts for 23 per cent of total farmland and 13 per cent of the value of marketed output, it only receives 8 per cent of the research funds. This share will be increased. Other high priority crops include oil crops. Research for oil crops will be fully funded before we switch to other crops.

4.34 Attention will also be given to efficient crop production systems for semi-arid areas. Priority will be placed on drought resistant crops such as sorghums, millets, pulses, roots and tubers. The national wheat research programme will focus on minimum cultivation techniques and production methods suited to smallholders in drier parts of the country. Research in triticale production and utilization will continue. The paddy breeding programme will be focussed on rain-fed rice particularly in Western Kenya.

distributors of agro-chemicals will be required to hold regular campaigns to educate users on the safe handling and use of agro-chemicals.

3.8 The main aim of policy for seeds will be to ensure adequate supplies of high quality seeds of improved varieties of a wide range of crops.

3.9 To increase the availability and the quality of concentrates, compound feeds and minerals required for increased livestock and poultry production, the Government will support the production of protein-rich crops like soya beans and support private manufacture of animal feeds in the rural areas to reduce unnecessary transport and distribution costs. Animal feed manufacturers will be encouraged to switch from maize and wheat to sorghum and other raw material sources. The liberalisation of the pricing of maize and wheat will contribute to bringing about a rationalization in their use for human food vis a vis their use in animal feed compounding.

3.10 To keep the prices of imported livestock drugs, semen and embryos low, the Government will allow their importation free of duty.

3.11 For agricultural machinery, the main aim of the policy will be to support the private sector in the development and wider distribution and maintenance of more appropriate technology to increase labour productivity and to reduce the present emphasis on imported capital-intensive equipment. Part of this support will be in the form of improved mechanization extension services. The availability of agricultural machinery, particularly that which is required for small scale farming will be increased through programmes supporting the formal and jua kali manufacturing sub-sectors in supplying mechanized, ox-drawn and hand equipment.

3.12 To encourage farmers to intensify agricultural production through the use of agricultural and livestock inputs (fertilizers, agro-chemicals, livestock drugs, farm machinery), the Government will further seek to reduce their prices by waiving Value Added tax (VAT) on those inputs.

3.13 The Ministry of Agriculture, Livestock Development and Marketing will liaise with relevant institutions to finalize the preparation of the National Agricultural Mechanization Strategy (NAMS). Through the implementation of NAMS, the Government will support the development of an effective farm machinery manufacturing, distribution and servicing system for the country's needs and even for export.

3.14 It is estimated that about a third of the price of major agricultural and livestock inputs accrues to middlemen. While

operatives, farmers' companies and farmers' groups to acquire and market fertilizers.

4.18 The seasonal credit programmes presently in operation will be strengthened to enable farmers to purchase increased quantities of fertilizer.

Programme to Improve the supply and Utilization of Other Inputs

4.19 The distribution of disease and pest control chemicals in livestock will continue to be undertaken by the private sector. Extension campaigns will provide farmers with adequate information on suitable types and application rates. The Ministry of Agriculture, Livestock Development and Marketing will continue to enforce the provisions of The Cattle Cleansing Act and The Animal Diseases Act to ensure that animals are dipped and vaccinated as required by law.

The Ministry of Agriculture, Livestock Development and Marketing will review its strategy to control livestock diseases and make recommendations relating to:-

- The possibility of replacing cattle dipping with immunization as a measure for controlling tick-borne diseases.
- The potential and precise methods for increasing charges paid by the beneficiaries of disease control.
- Means to increase the effectiveness of collecting user charges that are already established.
- A shift of the responsibility for managing cattle dips to the districts; and
- Increases in the efficiency of vaccine production through joint ventures between Government and private pharmaceutical firms.

Programme to Improve Credit Facilities for Food Production

4.20 The overall aim of credit policy for food crops and livestock for the rest of the century will be to steadily expand the supply of credit in order to provide a financial base for the intensive production necessary to meet consumption requirements. Over the long term, the Government aims to broaden the institutional base for credit disbursement through a programme of decentralization.

4.21 The Ministry of Agriculture, Livestock Development and Marketing proposes to expand the seasonal credit scheme so that, by the year 2000, credit is provided for 1.8 million

farming compared to other investments. The liberalization of the economy will permit a more rational allocation of resources in agriculture and other sectors. The Government will ensure that agriculture receives the required level of investment to achieve sectoral objectives.

3.18 The Government will establish an agricultural development bank under the Agricultural Finance Corporation (AFC) with the necessary legal mandate to accept deposits from the public. In this way, the perennial liquidity problem of the AFC, and its heavy dependence on Treasury for funds will be solved. The AFC has not been able to meet the credit needs of farmers, and especially the needs of small-scale farmers. The main reasons accounting for this situation include high default rate by major borrowers and inadequate liquidity. To enable AFC to undertake its mandate in a more satisfactory manner, it is necessary to ensure that strict commercial lending criteria are employed and that the liquidity position is improved. In the tight fiscal environment and liberalization framework it is not prudent to expect significant amounts of funding to come from the Treasury and an alternative sourcing of funds is required. By creating an Agricultural Bank with legal authority to accept deposits from the public, the AFC will be enabled to raise the necessary finances. The bank would lend primarily to agriculture but selected agro-industrial enterprises would also be eligible for credit. To ensure that the bank operates on strict commercial principles, the ownership of the bank would be 51 per cent GOK and 49 per cent private. Farmers, co-operatives and agro-industrial enterprises would be given first priority in the allocation of the private sector portion of shares. Directorships would be representative of the shareholding. To prevent abuse of agricultural credit, the Government's long term policy is to discontinue subsidized interest rates. For this reason, AFC's interest rates will be raised to commercial levels. However, whenever the Government wishes to promote the production of specified food commodities, AFC will be provided with funds under specific programmes for lending to small-scale farmers at subsidized rates of interest. Such credit will be supervised by the extension service of the Ministry of Agriculture, Livestock Development and Marketing. AFC's lending terms will be revised to encourage borrowing by farmers for short to long-term needs.

3.19 Poor weather conditions and diseases often lead to losses of crop and livestock production. Such losses can also lead to defaults in repayments of credit. To reduce such defaulting, repayments of credit advanced to farmers by AFC will carry a mandatory insurance premium. The AFC will operate a Loan Guarantee Fund and a Crop and Livestock Insurance facility for this purpose.

Programme to Improve the Supply of Seeds

4.8 The Kenya Seed Company (KSC) has the obligation to ensure that adequate supplies of seed, particularly maize and wheat, are available at the beginning of each crop season. A target rate of growth of sales of improved maize and wheat seed has been established for the company at 10 per cent per annum. The pricing of seed is already liberalized and therefore KSC and other seed companies that might enter the market can operate on commercially viable principles. The Government will continue to encourage seed companies to increase the range of crops for which they supply improved seed.

4.9 The Government will encourage the initiation of both private and public sector projects to increase production of seed and planting materials, particularly of beans, potatoes, oilseeds and horticultural crops.

4.10 The Ministry of Agriculture, Livestock Development and Marketing will continue to maintain close liaison with the seed companies and participate in major decisions on investment and prices. In the main grain growing areas the KCGU already has distribution centres. Co-operative unions and societies and private agents are encouraged to expand their seed distribution activities.

4.11 The Government will gazette Plant Breeders' Rights and negotiate membership of relevant international organizations. This will allow Kenyan farmers to acquire patented new innovations of plant varieties that hitherto have been difficult to get, particularly flowers and other horticultural crops. Farmers will therefore be able to acquire from external sources, competitive planting material which our researchers have yet to develop.

4.12 In view of the need to increase productivity of livestock in high and medium potential areas, KSC and other seed companies will be encouraged to improve the quality and supply of seed for pasture and forage crops.

Programme to Improve Land Preparation Services

4.13 The Tractor Hire Service (THS) of the Ministry of Agriculture, Livestock Development and Marketing will charge commercial rates for its services and will be withdrawn from areas where private contractors provide adequate services in land preparation. The Plant Hire Service (PHS) of the same Ministry, will first, be mobilized to help farmers institute soil conservation programmes on large farms and in arid and semi-arid areas, where mechanization is essential. Second, PHS will help farmers build small dams and other works for micro-irrigation systems that conserve water and utilize it

Research-Extension Linkages

3.25 The District Farming Systems Teams will be strengthened to improve the linkage between farmers, research and extension. In particular research projects at Regional Research Centres (RRCs) will be developed by the Regional Research Centres Committees (RRCs) to which farmers and extension workers have been incorporated. Communication between farmers and extension workers will be improved through regular meetings of Agricultural Committees constituted of farmers and extension workers at the sub-location, location, division and district level. Whenever necessary researchers will be included in these meetings. Maize tours will be undertaken jointly by officials from both the Ministry of Agriculture, Livestock Development and Marketing and the Ministry of Research, Technical Training and Technology.

3.26 In addition to crop and livestock research, the Government will support food research, particularly (a) the processing and storage of traditional foods to increase their appeal to consumers and shelf-life; and (b) food preparation trials and introduction of different dishes to consumers with a view to changing food eating habits. Home economics extension will be strengthened particularly in districts with severe food and nutritional problems.

3.27 Private Research Funding in Kenya is extremely low. Efforts will be made to encourage agricultural research beneficiaries to contribute more to agricultural research.

3.28 The Kenya Sugar Authority will be strengthened and restructured to become more responsive to the needs of the sugar industry and in this way, ensure that sugar research is strengthened significantly, funded by the industry.

3.29 Since the 1920's when the Kenya Stud Book was established, the Livestock Recording Centre, Kenya Milk Records, Central Artificial Insemination Station and Kenya National Artificial Insemination Service have been introduced, operated by Departments in the Ministry of Agriculture, Livestock Development and Marketing, Breed Societies and the Agricultural Society of Kenya. To harmonize and improve coordination and solve the recurring financial problems plaguing these activities, these and similar livestock breeding activities will be put under one organization which will develop a self-sustaining and self-financing breeding programme. This body will finance its activities from a cess from the sale of livestock products and sales of semen. The organization will supply farmers with improved breeds on commercial basis.

SECTION 4

PROGRAMMES TO ACHIEVE THE POLICY OBJECTIVES

- 4.1 Forging ahead towards the Year 2000, the Government, particularly through the Ministry of Agriculture, Livestock Development and Marketing will continue to undertake a comprehensive range of prioritized programmes.
- 4.2 These programmes will focus on promoting increases in national food production to keep pace with population and income growth and to maintain a position of broad self-sufficiency in food for the remainder of the century. Other programmes will be aimed at improving processing and marketing efficiency to cope with the growth in supply.
- 4.3 As part of a comprehensive programme to ensure the security of food supplies without excessive dependence on imports in years of crop failure, food reserves sufficient to see the country through six months will be maintained with appropriate control mechanisms for their management. Additionally, the Government will maintain at all times hard currency reserves for needed food imports. Specific measures will also be introduced to ensure that the increased and more secure supply of food will result in an adequate nutritional intake for the entire population. Phase Two of the Cereal Sector Reform Programme will address itself to the issues.

- 4.4 In order that these programmes be implemented successfully and have maximum impact, it is important that they are mutually reinforcing and consistent with the main aims of both food policy and development policies in general.

Programme to Establish the National Food and Nutrition Secretariat

- 4.5 To undertake longer-term policy analysis and to develop food-security policies and strategies for use in national planning and decision-making a National Food and Nutrition Secretariat (NFNS) is to be created in the Ministry of Planning and National Development. NFNS will also house the Strategic Reserves and Inventories Monitoring Facility. The responsibilities envisaged for the NFNS are as follows:-

- (a) to assist ministries, parastatals and other organisations to improve the focus, timeliness and quality of the data which they collect on variables relating to food security;
- (b) to assemble routinely data on variables relating to food security;

will be improved through the regular meeting of Agricultural Committees, constituted of farmers and extension workers, at the sublocation, location, division and district levels. Extension workers will be expected to identify with farmers' aspirations and assist them accordingly.

- 3.36 Additionally, to improve the credibility of extension workers, the Ministry of Agriculture, Livestock Development and Marketing will undertake in-service training of extension workers in farming systems methodology to enable them to assist farmers in detailed planning and budgeting of their farm activities. Such plans and budget will take into account not only commercial enterprises like coffee, tea, dairy, pyrethrum, and horticulture, but also household food requirements and off-farm activities. In such budgets, requirements for credit should also cover traditional crops such as millets, sorghums, pigeon peas, bananas, roots and tubers. The contribution of wild (non-cultivated) vegetables and fruits, such as *Amaranthus spp.* and guava; and small stock such as rabbits, chicken, ducks, etc. to the household diet should not be neglected.

Food Security Policy

- 3.37 The central objective of national food security policy is to ensure an adequate supply of nutritionally balanced foods in all parts of the country at all times. Food security at the national level will be achieved through :-

- increasing food production in all areas of the country;
- emphasizing drought-resistant crops such as sorghum and millet in the dryland areas;
- rapid development of the country's irrigation and drainage potential;
- the establishment of a food commodity monitoring and reporting system;
- continued monitoring and forecasting of weather conditions in the main agricultural zones, and wider dissemination of information on expected weather trends;
- improvement in the marketing, processing and distribution of food;
- adequate multi-commodity strategic reserves, including strategic reserves of milk powder, will be maintained at all times to see the country through difficult times such as droughts and poor harvests.

continue to be the major source of new jobs for the rapidly expanding labour force to the year 2000 and beyond.

3.61 The basic aims of manpower development policy is to increase the willingness of the population to participate in agricultural development and to equip the agricultural workforce with appropriate technical and managerial skills. The Government has placed increased emphasis on vocational training for agriculture. Within the programmes to expand food production, labour intensive techniques will be emphasized wherever situations of labour surplus are envisaged.

3.62 The seasonal nature of much of agricultural employment means that labour shortages occur at certain times of the year despite the general surplus of labour. As the rural population will grow at a slower rate over the next decade than the aggregate demand for food, seasonal labour shortages could well become progressively more of a constraint to meeting this demand unless corrective measures are taken. Programmes to increase labour mobility and labour productivity at times of labour shortage should be undertaken to ease this constraint.

Incentives

3.63 Farmers require solid support in terms of incentives to motivate them to invest their resources in farming. Major incentives include remunerative prices, availability of reasonably priced inputs, effective research and extension services, availability of affordable credit, efficient marketing infrastructure and timely payments. Disincentives should be removed, a prime example being the Presumptive Income Tax (PIT), and whose withdrawal with effect from January 1994, will be welcomed by farmers.

3.64 The liberalization of marketing, improved marketing information, support with minimum producer prices for selected commodities, and improved storage and marketing, and timely payments, will provide farmers with remunerative prices.

3.65 Low prices of inputs will be achieved by (a) importation, free of duty, of fertilizers, agro-chemicals, livestock drugs, livestock semen and embryos, selected farm machinery and equipment, and raw materials for the manufacture of agricultural inputs, machinery and equipment; (b) removal of Value Added Tax on the same; and similar taxes on agricultural and livestock inputs; and (c) the assistance, with foreign exchange to farmers' co-operatives, companies and groups to import agricultural inputs for their members.

3.66 Better communication and rapport with extension workers and researchers will be achieved through better funding of extension and research services, improved supervision and

40 per cent of national consumption requirements. Given the limited potential for rapid expansion of production, demand is expected to continue to exceed supply. The Government recognizes the importance of wheat and bread as components of the diet of many Kenyans. The liberalization of the domestic wheat industry as well as importation of wheat, is expected to increase the supply of wheat in the country. To protect domestic producers from dumping of cheap imports, wheat imports will continue to attract variable duty.

3.42 The demand for rice will continue to exceed domestic supply in the short to medium term. Importation of rice will be liberalised but as in the case of maize, wheat, rice and vegetable oils, will be subject to the variable import duty.

3.43 Recognizing the need to safeguard domestic food supplies at all times, Government policy is to allow food exports only when domestic supplies are assured for the foreseeable future. At the same time, the Government recognizes the need to protect the interests of the farming community and will only sanction food imports to meet confirmed deficits of staple foods which cannot be met from domestic stocks. The long-term goal, however, is liberalization of food trade in keeping with the interregional/international agreements such as the Preferential Trade Area (PTA) and the Pan African Economic Community (PAEC).

3.44 In order to safeguard the national dairy herd, exports of dairy breeding stock will be regulated by the Government.

Nutritional Policy

3.45 A significant proportion of the population, particularly pre-school age children, is malnourished as a result of inequalities in the distribution of purchasing power, seasonal localized food shortages and lack of nutritional education. The overall objective of nutritional policy is to overcome this situation. Recognizing that increasing production alone will not resolve this problem effectively, government policy is aimed at increasing the production and consumption of more nutritious foods, improving the distribution of purchasing power and implementing specific market intervention programmes as and when necessary.

3.46 The Government will improve nutrition education offered in schools by the Ministry of Education, and the informal nutrition education offered by the Ministry of Health, and the Ministry of Agriculture, Livestock Development and Marketing. Non-governmental organizations will also be encouraged to step up their emphasis on nutrition education.