

Ministry of Agriculture

CROP  
PRODUCTION  
POLICY

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## INTRODUCTION

Although nationally there is sufficient food, some families suffer from shortages of maize and other food crops due to overselling and low yields particularly in marginal areas.

In some areas of the country, high value cash crops are available but for some of these there are strict market constraints. Other areas at present although equally suitable have access to low value cash crops only or must sell part of their food crops for cash. It is an aim of this policy to enable a choice of high value crops for all parts of the country.

Some crops are grown in unsuitable agro-ecological areas while others are cultivated on steep slopes without proper land use practices

Mindful of the risks of crop contamination and health hazards due to inappropriate use of pesticides, this policy aims at ensuring judicious use of chemicals.

There is scope for decreasing imports with crops such as wheat and oil seeds, expanding and diversifying exports with other crops.

The Government policy therefore, aims at a balanced and diversified production of food and cash crops to meet the country's requirements for food, foreign exchange and raising rural incomes. It also aims at improving and maintaining the productive potential of the land. In pursuing this policy, it ensures that:-

- (a) Self sufficiency in food is maintained.
- (b) There is a fair distribution throughout the country of cash crops to afford farmers equal opportunity of increasing income generation while avoiding the risk of overproducing for the trade.
- (c) Crops are grown in areas which have suitable agro-ecological factors with appropriate farming systems to suit varying topographic conditions for the conservation of natural resources.
- (d) Appropriate technology is continually being transferred to farmers for steady improvement in yield.

- (e) There is quality control in crop production and no risk of pesticide contamination as a result of any use of chemicals on crops.
- (f) There is diversification of both food and cash crops for food security, promoting import substitution of expanding exports while accommodating changing market conditions.
- (g) Seasonal and medium credit facilities are provided to needy farmers for inputs like fertilizers, planting material, pesticides etc.
- (h) Processing and preservation of food crops is promoted.

The achievement of these policy objectives largely depends on a strong Extension/Research linkage, staff and farmer training.

## CROPS

### 1. MAIZE

#### Objectives

To achieve and sustain self sufficiency through increased yields rather than expanded area.

Average yields at present range from 2,000 - 3,600 kg/ha for hybrids; 1,400 - 2,400 kg/ha for composites and 880-1,300 kg/ha for unimproved maize. However, there is room for increasing yields under suitable agroecological conditions and improved husbandry practices. Yields of more than 6,500 kg/ha for hybrids, 4,500 kg/ha for composites and 2,700 kg/ha for unimproved maize have been attained.

The goal therefore is to strive to achieve the potential yields.

#### Strategies-Improved Maize

The strategy for maize focuses attention on:-

- (a) Suitable agroecological areas where production of improved varieties will be encouraged.
- (b) Marginal rainfall areas such as Shire Valley floor, Lupembe, Mlare, Chileka, Symon, Balaka, Mkope and Nankumba areas where production of improved maize will be promoted when suitable varieties have been identified or under irrigation wherever feasible.
- (c) Marginal areas in terms of soil conditions and low temperatures. Where maize is grown on steep slopes, buffer strips and ridging on the contour will be encouraged. In marginal areas of low temperatures and soil pH of less than 5.5 the strategy will be to encourage the use of appropriate fertilizers and identification of suitable varieties.

#### Low Yielding Maize

The strategy will be to gradually replace the low yielding maize with high yielding varieties while making available extension advice to those still growing low yielding maize.

## Operational Objectives

In order to achieve the objectives outlined above, the following course of action will be followed:-

- (a) Extension advice on recommended husbandry practices will be intensified.
- (b) Promotion of seed selection in unimproved maize, composites and synthetics.
- (c) Encourage mixed cropping with legumes and other recommended crops.
- (d) Maximise the use of organic fertilizers to reduce dependence on inorganic fertilizers while improving the soil structure.
- (e) Demonstration on all types of maize will be encouraged.
- (f) Demonstrate improved storage techniques.
- (g) Promote the growing of varieties in their areas of suitability e.g. MH12, MH15 and UGA for high altitude areas; MH16, NSCM41, and CCA which will be replaced by CCC, for low altitude areas.

## 2. RICE

The policy aims at increasing production through expansion in hectareage and increase in yields to meet the domestic and export demands.

Hectareage on rice is decreasing. Yields range from 1,000 to 2,300 kg/ha for Faya and 1,800 to 3,000 kg/ha for Blue Bonnet. The objective is to attain the potential yields of 2,500 kg/ha for Faya and 3,500 kg/ha for Blue Bonnet varieties and introduce acceptable high yielding varieties especially in irrigation schemes.

### Strategy

- (a) Exploiting the potential in traditionally rice growing areas and later extending to other suitable areas.
- (b) Where adequate irrigation water is available, double cropping of rice will be encouraged but where water supply is limiting for rice, diversification will be advocated.

- (c) Ensure full utilisation of irrigation schemes.

### Operational Objectives

- (a) Encourage the growing of high yielding (early maturing) varieties.
- (b) Promote good crop husbandry practices especially early planting, correct spacing, use of fertilizers and weeding.
- (c) Work and cooperate with local leaders and scheme committees in the recruitment of settlers and management of schemes.
- (d) Promote improved water management practices especially bunding, field levelling, canal maintenance and equitable water distribution.
- (e) Ensure timely seed and fertilizer supply particularly in irrigation schemes.
- (f) Initiate the development of self-help schemes in suitable areas.
- (g) Replace winter rice with less water demanding crops such as maize and wheat where irrigation water is inadequate.
- (h) Promote growing of two or more rice crops per year through the use of early maturing varieties in irrigation schemes while stressing the benefits of double cropping.
- (i) Promote use of suitable farm mechanization in irrigation schemes such as ox-drawn implements.
- (j) Promote growing of Kilombero, Mwasungu and other accepted varieties.

### 3. SORGHUMS AND BULRUSH MILLET

The policy is to increase production of sorghum and bulrush millet in marginal rainfall areas.

Yields for sorghum grown by Smallholders average 600 kg/ha, but there is scope to increase these yields to 3,000 kg/ha with the PN 3 variety. However, yields of up to 6,000 kg/ha have been achieved with hybrid sorghums.

Yields for Bulrush millet average 600 kg/ha but there is potential to achieve 1,700 kg/ha.

### Strategy

- (a) Promoting production of these crops in low rainfall areas e.g. Shire Valley floor, Lupembe and Mlare areas.
- (b) Promoting sorghum and bulrush millet production as security crops in other low marginal rainfall areas.
- (c) Promoting production of sorghum hybrids for cash purposes in these areas.

### Operational Objectives

- (a) Promote the acceptance of improved varieties for food purposes, e.g. PN 3.
- (b) Expand and support production to meet food requirements.
- (c) Increase yields through use of improved varieties and recommended land and crop husbandry practices.
- (d) Provide credit for improved varieties.
- (e) Ensure timely input supply to farmers.
- (f) Demonstrate improved storage techniques.

## 4. FINGER MILLET

The policy aims at increasing production through increasing yields and expanding hectarage.

Present yields average 500 kg/ha but the crop is known to yield as much as 4,000 kg/ha.

### Strategy

- (a) Promotion of finger millet production in suitable traditional growing areas.
- (b) Where millet is cultivated on steep slopes, appropriate land husbandry practices will be strictly followed.



- (c) Appropriate and acceptable methods of growing finger millet will be promoted.

### Operational Objectives

- (a) Encourage the growing of finger millet within the recommended cropping system without unnecessarily opening new land.
- (b) Seed bulking of improved varieties.
- (c) Appropriate physical conservation structures will be recommended for various slopes, e.g. strip cropping, marker ridges, storm drains, grass strips and bunds.
- (d) More practicable methods of sowing and fertilizer application will be made available.
- (e) Promote the use of manures and fertilizers.

## 5. WHEAT

The policy aims at increasing production to meet domestic demand thereby reducing dependence on imports.

Although there is potential for increasing hectareage, the area under wheat is decreasing. Present yields range from 400 - 1,000 kg/ha but there is scope for increasing yields up to 2,500 kg/ha. The goal therefore will be to increase hectareage significantly and strive to achieve the potential yields.

### Strategy

- (a) Promote production of wheat under irrigation on estates, irrigation schemes, and wherever irrigation facilities are available.
- (b) Promote wheat in the high altitude areas of Neno, Ntcheu, Tsangano/Dedza Hills, Shire Highlands, Ntchisi Hills, Nchenachena, Viphya Plateau and Misuku Hills under residual moisture.
- (c) Produce area specific recommendations.

### Operational Objectives

- (a) Initiate seed bulking to ensure adequate seed supplies.

- (b) Provide appropriate technology for sowing and fertilizer application.
- (c) Provide suitable production packages for irrigated and rainfed crops.
- (d) Intensify extension effort through regular staff and farmer training.

## 6. TOBACCO

The policy is to increase yields and improve quality of tobacco and to control production in line with trade requirements while ensuring appropriate and effective use of land.

Average yields per hectare are 500 kg for Western tobacco, 450 kg for Oriental, 1,200 kg for Burley and 1,500 kg for Flue-cured tobacco. Under good management yields of 2,000 kg/ha for Western tobacco, 1,000 kg/ha for Oriental tobacco, 3,000 kg/ha for Flue-cured tobacco and 4,000 kg/ha for Burley tobacco have been obtained. The objective is, therefore, to achieve a steady increase towards the potential yields.

### Strategy

- (a) Encourage production in agro-ecologically suitable areas, taking into account the volume of the trade requirement and the tobacco variety suitability.
- (b) Promote the production of high quality tobacco.
- (c) Expand production of oriental tobacco.
- (d) Western and oriental tobacco will remain exclusively smallholder crops and smallholder farmers' participation in the production of burley and flue-cured tobacco will be restricted to specific schemes and authorities.
- (e) Promote suitable cropping systems to ensure correct land use.

### Operational Objectives

- (a) Production of Northern Division Dark-Fired tobacco will be promoted in Dowa, Lilongwe, Ntchisi, Dedza (Thiwi-Lifidzi), Kasungu (Chambwe Area), Mzimba, Rumphi (Nkhamanga plain) and Chitipa plain.

- (b) Promote Southern Division Fire-Cured tobacco in Blantyre (Lirangwe), Chiradzulu, Phalombe, Mulanje West, Zomba South, Namwera and Kawinga areas.
- (c) Sun-Air tobacco will be promoted in Mchinji, Kasungu, Bwanje Valley, Nsipe and Chilipa.
- (d) Production of Oriental tobacco will be promoted in Mzimba/Rumphi areas.
- (e) Institute vigorous registration of tobacco growers to promote high standard of management.
- (f) The provisions of the Tobacco Act dealing with unregistered growers will be enforced.
- (g) Encourage the timely application of manures and recommended fertilizers.
- (h) Promote timely planting, weeding, curing and recommended leaf handling practices.
- (i) Promote appropriate disease control and pest management practices.
- (j) The provisions of the Tobacco Act dealing with crop hygiene will be enforced.
- (k) Promote high standard of nursery management to ensure vigorous seedlings.
- (l) Enforce the conservation of fuelwood, woodlot establishment and recommended cropping systems as well as soil conservation practices.
- (m) Ensure careful use of pesticides to avoid contamination.

## 7. GROUNDNUTS

The policy aims at a substantial increase of both confectionery and oil nuts to meet local and export demand and provide raw materials for the domestic oil industry.

Hectarage on groundnuts has not increased significantly. Yields are low at 475 kg/ha for Chalimbana, 750 kg/ha for Mani-Pintar and 350 kg/ha for Malimba. Yields of up to 2,000 kg/ha, 2,400 kg/ha, and 1,500 kg/ha. can be achieved with Chalimbana, Mani-Pintar and Malimba respectively.

The objective will therefore be to increase hectarage under groundnuts and improve yields towards the potential levels.

### Strategy

- (a) Promoting the production of Chalimbana and Chitembana nuts in the agroecologically suitable plateau areas.
- (b) Promoting the production of oil nuts (Mawanga and Mani-Pintar) in the rift valley floor excluding the Shire Valley floor and Nkhata Bay lakeshore.
- (c) Promoting Malimba in the Shire Valley floor, Karonga, Nkhata Bay lakeshore and rosette resistant varieties in the Phalombe plain.

### Operational Objectives

- (a) Smallholder seed bulking programmes will be initiated to ensure adequate supply of high quality and inexpensive seed.
- (b) Control of fungal diseases especially leafspot will be encouraged using Daconil.
- (c) Encourage 60cm ridge spacing for farmers using appropriate ox-drawn implements.
- (d) Encourage recommended crop husbandry practices particularly optimum plant population.
- (e) Encourage application of lime and gypsum.
- (f) Expand cultivated hectarages in suitable areas.
- (g) Promote rotation with cereals for the benefit of both crops.

## 8. COTTON

The policy aims at increasing production and improving quality to meet domestic and export market demands.

Past trends in production have been declining due to reduction in hectareage and low yields. The present yields average 700 kg/ha but there is potential to achieve yields of up to 3,000 kg/ha. The objective will therefore be to steadily increase yield towards the potential and expand hectareage.

### Strategy

- (a) Exploit the potential in the present cotton growing areas.
- (b) Limit the involvement of the estate sub-sector in cotton production while at the same time encouraging smallholder production.
- (c) Promote appropriate and recommended disease and pest control measures to ensure high quality yields.

### Operational Objectives

- (a) Promote production in Karonga Lakeshore, Nkhotakota Lakeshore, Salima, Henga-Kasitu, Bolero Valley, Symon, Mwanza, Bwanje Valley, Mangochi, Machinga, Zomba West, Lirangwe and Shire Valley floor and Phalombe.
- (b) Expand hectareage in the present cotton growing areas.
- (c) Promote spraying regimes based on recommended threshold levels.
- (d) Promote good management especially in the initial stages of crop establishment.
- (e) Enforce the Cotton Act regarding crop hygiene.
- (f) Estate cotton production will be allowed only in the cotton growing areas.
- (g) Intensify extension effort on thorough picking.
- (h) Boron will be included in the recommended packages where there is boron deficiency.

- (i) Ensure close liaison with relevant organizations on timely supply of pesticides, sprayers and spare parts.

## LSES

Since pulses are a cheap but important source of protein, the policy aims at increasing production for local consumption to improve the nutritional status of the rural population.

Present yields are 150 - 200 kg/ha and 600 kg/ha for mixed and pure stands respectively. There is potential to raise yields up to 500 kg/ha for mixed stands and 1,500 kg/ha for pure stands. The objective is therefore to gradually increase yields towards the potential levels.

## Policy

- (a) Exploit the potential of agroecologically suitable areas for various types and varieties.
- (b) Promote appropriate farming systems.
- (c) Production of canning beans will be maintained according to market demands.

## Additional Objectives

- (a) Promote the bulking of improved seed.
- (b) Promote mixed cropping in all areas.
- (c) Encourage pure stands where land is sufficient.
- (d) Encourage farmers to keep enough supplies for consumption.
- (e) Promote double and/or relay cropping in areas with a long growing season.
- (f) Promote recommended cultural practices.
- (g) Identify region pea varieties resistant to Fusarium.

## 10. COFFEE

The policy is to increase production and yields in line with trade requirements.

Potential coffee yields are 900 - 1,200 kg/ha but smallholder yields average 300 - 500 kg/ha. The objective is therefore to achieve a steady increase towards potential levels.

### Strategy

- (a) Exploit full potential in traditionally coffee growing areas.
- (b) Promote adequate and recommended soil conservation measures.

### Operational Objectives

- (a) Encourage farmers to raise their own seedlings.
- (b) Provide pulperies where production justifies.

## 11. CASSAVA

The policy aims at increasing production in all areas.

Yields range from 2,000 to 3,000 kg/ha dry weight. The potential yield ranges from 6,000 to 7,000 kg/ha. The objective emphasizes increase in yields.

### Strategy

- (a) Promote production in all traditional growing areas for food and surplus for sale.
- (b) Promote production as a security crop in other areas.

### Operational Objectives

- (a) Promote the production of more of the bitter varieties in areas where cassava is a staple food.
- (b) Multiplication of disease-free planting material of improved varieties.

- (c) Promote growing of cassava following appropriate land husbandry practices.
- (d) Encourage early planting.

## 12. SWEET POTATOES

The policy aims at promoting production in all areas as a food supplement and for cash.

Present yields average 2,500 kg/ha but there is scope to increase yields to 12,000 kg/ha. The objective is therefore to steadily work towards achieving the potential.

### Strategy

Increase yields through introduction of high yielding cultivars.

### Operational Objectives

- (a) Intensify multiplication and selection of planting material.
- (b) Encourage early planting.
- (c) Promote the growing of improved varieties e.g. Kenya and Negerian varieties.
- (d) Demonstrate suitable storage techniques.

## 13. IRISH POTATOES

The policy is to increase production to meet domestic demand.

Yields are at 5 tonnes/ha but the potential can be as high as 15 tonnes/ha. The objective will be to strive to achieve that potential.

### Strategy

- (a) Increase production of high quality tubers in traditional growing areas.
- (b) Extend production to other suitable areas.



## Operational Objectives

- (a) Introduce high yielding disease resistant varieties.
- (b) Promote production in Shire Highlands, Viphya, Mwera Hill, Phoka and Misuku Hills, Neno, Ntcheu and Dedza Hills.
- (c) Encourage good cultural practices from seed selection to harvesting and storage.
- (d) Intensify disease and pest control to ensure high yields and good quality.

## 14. CITRUS FRUITS

Increase citrus production to satisfy domestic demands. Present production is low due to poor yields and few trees. The objective will therefore be to steadily increase yields and number of trees.

### Strategy

- (a) Exploit the potential in all suitable areas.
- (b) Improve fruit quality for taste and shelf-life.

### Operational Objectives

- (a) Encourage smallholder farmers to produce fruits for consumption and sale.
- (b) Promote the growing of improved varieties e.g. Washington navel.
- (c) Promote sound production management.
- (d) Develop extension packages with emphasis on high standard demonstration.
- (e) Recommend suitable areas, types and varieties for commercial production.
- (f) Encourage the formation of farmer associations to address production and marketing problems.
- (g) Initiate the establishment of nurseries at ADDs.

## 15. PINEAPPLES

The policy aims at increasing production in suitable growing areas in addition to Mulanje.

The potential yields are 75,000 kg/ha. Farmers are encouraged to strive to achieve the potential yields.

### Strategy

- (a) Improve fruit quality in Mulanje area.
- (b) Encourage production in other suitable areas.
- (c) Organise farmers into production and marketing associations.

### Operational Objectives

- (a) Promote production in warm to cool areas with some winter showers.
- (b) Promote proper selection and grading of planting material for uniform crop establishment.
- (c) Encourage the use of recommended varieties.
- (d) Promote high standards of cultural practices.
- (e) Encourage commercial production near urban areas where it is suitable for quick disposal.

## 6. DECIDUOUS FRUITS

The policy is to increase production in suitable agroecological areas to meet local demand.

### Strategy

- (a) Increase production in suitable areas.
- (b) Improve fruit quality and availability.

### Operational Objectives

- (a) Encourage growing of improved varieties e.g. Anna for apples.
- (b) Promote recommended cultural practices e.g. pruning.

- (c) Encourage farmers to establish nurseries to supply on local need.
- (d) Establish control centres to supply seedlings for multiplication.

## **17. CASHEWNUTS**

The policy is to encourage production for both the export and local demand.

### **Strategy**

Encourage cashewnut production in all suitable areas.

### **Operational Objectives**

- (a) Encourage planting of more trees.
- (b) Promote proper seed selection and nursery management.
- (c) Promote recommended cultural practices.
- (d) Promote production along the lakeshore, Phalombe plain and Shire Valley.

## **18. SUNFLOWER**

The policy is to increase production substantially. The aim is to satisfy raw material requirement for edible oils.

Hectarage is static and farmer interest is declining. Yields are 300 - 400 kg/ha but there is potential to increase yields to 1,000 kg/ha. The aim is to expand hectarage and improve yields.

### **Operational Objectives**

- (a) Encourage the expansion of hectarage.
- (b) Make available improved seed.
- (c) Encourage recommended crop husbandry practices especially rotation and disease control.
- (d) Intensify quality demonstrations.

## 19. BANANAS

The policy aims at increasing production in all suitable areas to satisfy domestic demand.

Present yields are suspected to be low but there is potential to obtain 60 tonnes/ha (from research experiments) with Williams and dwarf Cavendish.

### Strategy

- (a) Encourage production of bananas in all suitable areas.
- (b) Improve fruit quality and yield.
- (c) Address marketing problems.

### Operational Objectives

- (a) Encourage use of nematode free suckers.
- (b) Promote rotation to reduce nematode population.
- (c) Promote commercial production in areas with high rainfall such as Thyolo, Mulanje, Nkhata Bay, Ntchisi, Dowa Hills, Phoka and Misuku Hills and in Karonga.
- (d) Encourage farmers to form associations for marketing purposes.
- (e) Promote good management practices.
- (f) Promote the planting of high quality varieties such as Kabuthu and Williams.

## 20. CHILLIES

The policy aims at increasing production of Chillies to satisfy local and export demands.

### Strategy

Promote production in areas under 1,500m altitude.

### Operational Objectives

- (a) Encourage good seed selection.
- (b) Encourage good management.
- (c) Promote recommended cropping systems.

## 21. VEGETABLES

The policy aims at increasing production of vegetables to meet domestic demand. The objective is to improve the nutrition of rural and urban populations.

### Strategy

- (a) Ensure availability of good quality vegetables throughout the year.
- (b) Organise farmers into associations.
- (c) Promote production in all areas.

### Operational Objectives

- (a) Promote the use of both local and improved varieties.
- (b) Encourage planting in succession.
- (c) Encourage planting of early maturing varieties.
- (d) Encourage control of pests and diseases through crop rotation and proper use of recommended pesticides.
- (e) Assist commercial farmers to make contracts for quick marketing.

- (f) Promote preservation and processing of vegetables to ensure regular supply.

## 22. MANGOES

The policy aims at increasing production of selected fibreless varieties to meet the local demand.

Effort will be made to introduce the improved varieties to farmers wishing to grow them.

### Strategy

- (a) Establish nurseries for Mango improved varieties.
- (b) Encourage growing mangoes in suitable areas.
- (c) Promote processing and preservation of mangoes.

### Operational Objectives

- (a) Distribute seedlings to farmers from Central nurseries.
- (b) Encourage farmers to raise their own seedlings.
- (c) Provide technical extension package to farmers.
- (d) Conduct farmer and staff training on management.
- (e) Organise marketing of mangoes.