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REPUBLIC OF ZIMBABWE



FIRST FIVE-YEAR  
NATIONAL DEVELOPMENT PLAN

1986-1990

VOLUME II

APRIL, 1988

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## VOLUME II

1986-1990

# NATIONAL DEVELOPMENT PLAN

FIRST FIVE-YEAR

REPUBLIC OF ZIMBABWE



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## INTRODUCTION

This volume, which is the second part of the First Five-Year National Development Plan, contains programmes and projects which are formulated on the basis of the six major objectives of the Plan as outlined in Volume I. Each programme or project is, therefore, pursuant to one or more of these objectives.

Four basic economic indicators were used in determining the programmes and projects to be included in the Plan. These indicators are: investment, employment creation, output, and export potential. With respect to employment creation, the Plan requires use of labour-intensive techniques where feasible as a strategy for maximizing the economy's capacity to generate additional employment opportunities.

Most of the priority projects whose financial requirements are in excess of Government's capability have been spread over a period that extends into the next five-year plan in order to enable Government to match the total investment programme with available human and financial resources and the requisite foreign currency.

An additional aspect of this Volume which needs to be pointed out is that the programmes and projects are presented in summary form. Where applicable, the necessary details will be presented in the Investment Register. Exceptional cases apart, the programmes and projects to be implemented in each fiscal year, especially those in the public sector, will be drawn from Volume II and the Investment Register and presented as part of the Annual Plan. Implementation of the Annual Plan is largely a function of the Annual National Budget which is the key instrument for implementing National Development Plans.

Because of the nature and structure of the economy, Volume II contains mainly Public Sector investment programmes and projects, albeit with strong indications of projects in which private sector investment is expected and encouraged. Most of the projects in which the private sector is expected to make direct contribution are in manufacturing, mining and, to some extent, in the agricultural sector.

The main thrust of the investment programme is in keeping with Government policy of expanding the productive base of the economy as a strategy for generating additional employment opportunities as well as increase the wealth of the nation.

While the structure and level of public investment will be determined directly by the State, private investment will be influenced largely by the orientation of Public Sector Investment and by the projects contained in the Investment Register as well as by the short-term fiscal and monetary measures which will be implemented during the Plan period which are designed to influence change in the intended direction. It should be emphasized that the main preoccupation of each Annual Plan is not the level of investment but the restructuring of the key productive sectors and their contribution to overall development.

Efforts have been made to make this Volume conform to the planned distribution of resources as outlined in Volume I. This is revealed in the table overleaf.

**PUBLIC SECTOR INVESTMENT PROGRAMME**  
**(1986/87-1990/91 COMPARISON OF VOLUME I AND VOLUME II)**  
**(Z\$ million)**

Sector	Volume I		Volume II	
	1986/87-1990/91 (at 1985 prices)	Structure in per cent. share	1986/87-1990/91 (at 1985 prices)	Structure in per cent. share
Agriculture and forestry . . . . .	880	19,5	842 (1 214)	17,0
Mining and quarrying . . . . .	257	5,7	179 (257)	3,6
Manufacturing . . . . .	415	9,2	381 (550)	7,6
(1-3) Productive sectors . . . . .	1 552	34,4	1 402 (2 021)	28,2
Electricity and water . . . . .	541	12,0	950 (1 368)	19,1
Construction and housing,* . . . . .	888	19,7	818 (1 178)	16,5
distribution, Hotels and Restaurants . . . . .	165	3,7	38 (55)	0,8
Transport and communication . . . . .	794	17,6	812 (1 169)	16,4
(1-7) Material production sectors . . . . .	3 940	87,4	4 020 (5 791)	81,0
Education** . . . . .	200	4,4	617 (888)	12,4
Health . . . . .	175	3,9	188 (270)	3,8
Public administration and others . . . . .	198	4,3	138 (199)	2,8
(1-10) Total . . . . .	4 513	100,0	4 963 (7 148)	100,0

The figures in brackets in column 3 are at current prices.

\* Includes general purpose investment by Government and urban development.

\*\*Volume II figures includes Youth Training Centres, Health Centres, Public Services Training Centres and Agricultural Training Centres.

As will be apparent, this volume is organized according to social and economic sectors and where feasible, the programmes and projects are also presented according to provinces, especially in sectors such as agriculture, water development, education and health and, to some extent, in mining and manufacturing. Efforts will be made in the preparation of future plans to present most of the sectors according to provinces.

The average rate of inflation assumed in Volume I is still relevant to this Volume and it remains the objective of Government to contain inflation rates at a level lower than that assumed for the Plan period.

Provincial Plans for the period 1986/90 were submitted to Cabinet in November, 1986. Attempts have been made to integrate key elements of these plans into this Volume, taking into account the potential contribution of projects identified by provinces towards the attainment of the objectives of the First Five-Year National Development Plan. In addition, the projects were subjected to the same rigorous test which consists of the four basic indicators referred to earlier.

Although most of the programmes and projects contained in the eight Provincial Plans are relevant to the development requirements of the provinces, it was not possible to incorporate all of them into this Volume for two main reasons. First, the total investment requirements of Provincial Plans for the Plan period under consideration are much larger than available national resources as already determined globally and sectorally by Cabinet. Second, most of the self-reliant projects in Provincial Plans, including some projects to be implemented by Non-Governmental Organizations, are not included in the Plan because the mechanism for financing these projects currently falls outside the domain of the National budget. In this connection, integration of self-reliant projects into National Development Plans and the budgeting process will be one of the main tasks to be undertaken by the Regional Planning arm of the National Planning Agency during the current Plan period and beyond. This is because Government attaches great importance to self-help which, in addition to its contribution to overall development, demonstrates the initiative and efforts of the masses in the development process.

Accordingly, Government will make efforts to develop a methodology for incorporating these projects into National Plans.

The emphasis on provincial development to which Government has committed itself will be pursued with vigour in conjunction with efforts to attain regional balance. It is for this reason that attempts have been made in this Volume to proceed rapidly along this front. In view of the historical imbalances that have existed among regions in the development of the economy over an extended period of time, it will take time to attain the intended balance.

In assessing progress towards regional balance, one is cautioned against examining a given sector, project or programme in isolation of the rest of the activities in the economy. One needs to take into account the physical location of all programmes and projects and their priority ranking in the context of total investment, past investment developments and private sector investment in the regions. In this way, one will get a clearer view of Government's strategy for attaining regional balance and how much progress has been made in this important aspect of development. In subsequent plans, Government will strive to promote the changes that will further reduce disparities in incomes and economic opportunities that exist among regions.

One of the major weaknesses in the national planning machinery which the Plan seeks to address is the lack of an effective link between national plans and provincial plans. In the future, this link will be strengthened and harmonized as a result of the establishment of the National Planning Agency (NPA) which includes a section that will oversee all aspects of provincial planning. The Regional Planning Section of the National Planning Agency will guide Provinces in the preparation of Provincial Plans in line with national development plans. In addition, the Plan Implementation Section of the NPA will play an important role in the establishment and refinement of provincial planning in that it will monitor and review the implementation of provincial plans with a view to recommending corrective measures, where necessary.

In conclusion, it should be emphasized that since publication of Volume I of the Plan, disparity already exists between available resources and investment requirements of the Plan. This caution is essential in view of the fact that there are several projects which were still under consideration by Government at the time of publication of this Volume. These projects are shown in Annex I. If a decision is reached to implement one or more of the projects during the Plan period, it would be necessary to make major changes in the investment programme.

#### AGRICULTURAL PRODUCTION

##### Small-Scale Farming

##### Large-Scale Farming

##### Commercial Farming

##### Industrial Farming

##### Other Agricultural Projects

##### Agroforestry

##### Agroforestry</h5

#### **ABBREVIATIONS:**

ADMA	Agricultural Dealers and Manufacturers Association
AFC	Agricultural Finance Corporation
AGRITEX	Department of Agricultural Technical and Extension Services
ARDA	Agricultural and Rural Development Authority
CABS	Central Africa Building Society
CMB	Cotton Marketing Board
CSC	Cold Storage Commission
DDF	District Development Fund
DERUDE	Department of Rural Development
DMB	Dairy Marketing Board
DR & SS	Department of Research and Specialist Services
GMB	Grain Marketing Board
HP	Horse Power
IDC	Industrial Development Corporation
MMCZ	Minerals Marketing Corporation of Zimbabwe
NFPS	National Fund for Pre-investment Studies
PHC	Primary Health Care
PSIP	Public Sector Investment Programme
PTA	Prefential Trade Area
R & D	Research and Development
SADCC	Southern African Development Coordination Conference
SCZ	Scientific Council of Zimbabwe
SEDCO	Small Enterprises Development Corporation
SRN	State Registered Nurse
UDCORP	Urban Development Corporation
UHT	Ultra High Temperature
UNDP	United Nations Development Programme
VETS	Department of Veterinary Services
ZBC	Zimbabwe Broadcasting Corporation
ZDB	Zimbabwe Development Bank
ZDC	Zimbabwe Development Corporation
ZESA	Zimbabwe Electricity Supply Authority
ZIPAM	Zimbabwe Institute of Public Administration and Management
ZISCO	Zimbabwe Iron and Steel Corporation
ZMDC	Zimbabwe Mining Development Corporation
ZTDC	Zimbabwe Tourist Development Corporation

## **AGRICULTURE AND RURAL DEVELOPMENT**

Agriculture, which is one of the three material production sectors, is placed at the centre of the development strategy, especially as it relates to rural development.

During the Plan period, therefore, Government will implement agricultural and rural development programmes and projects that are intended to increase agricultural productivity and output. The resettlement programme will remain central in the attainment of the rural development objective. In this regard, approximately 75 000 families will be resettled during the plan period.

In order to increase agricultural productivity and output and ensure continued expansion of the sector, Government will take measures which are designed to create a suitable environment for a high and sustainable growth rate in the sector. Some of these measures include provision of credit facilities to small-scale resettlement and communal farmers, annual review of the pricing policy for agricultural produce, promotion of research activities relevant to the sector and development of irrigation schemes. In addition agricultural production will be further diversified.

An important aspect of development to which Government will pay greater attention in the development of agriculture and the rest of the economy is the regional dimension. This is to ensure regional balance in the development process. It is for this reason that this chapter is organized according to provinces.

### **REGIONAL DIMENSION OF AGRICULTURAL DEVELOPMENT**

The regional dimension of agricultural development considers the development of agriculture in each province with a view to promoting and diversifying agricultural production in accordance with the soil and climatic conditions of each province. It also helps to determine which agro-based industries that use locally produced agricultural raw materials should be established in a given province.

#### **MANICALAND PROVINCE**

Manicaland Province falls within Natural Regions I, II, III, IV, and V. Compared to the other provinces, Manicaland has the highest potential for agricultural development. The main agricultural activities in the Province are crop and cattle production. The crops produced include maize, sorghum, groundnuts, rice, sunflower, tea, coffee, cotton, tobacco, wheat, soyabean, potatoes and a variety of horticultural products. There are well developed irrigation schemes in the Province which are made possible by perennial rivers. There is still potential for the development of additional irrigation schemes and this potential will be examined during the Plan period.

During the Plan period Government will implement several projects in the Province, the most important of which are outlined below.

#### **Middle Sabi III B**

The Middle Sabi III B project produces cotton and wheat. It will be extended by 960 irrigated hectares. The canal to bring water to the project area is already in place. Engineering works will be established to service this project.

#### **Small-holder coffee and fruit project**

The Small-holder Coffee and Fruit Development Project is designed to improve productivity in the small-scale farming of coffee and fruit starting with Ngorima Communal area. The project includes production of Arabica Coffee on at least 300 hectares with 600 participants in Honde Valley. It also includes cultivation of 100 hectares of pineapples by 300 farmers in Ngorima and 270 hectares of other fruit in Ngorima Valley and Ngarura in Honde Valley.

#### **Rusitu Small-Scale Dairy Scheme**

The Rusitu Small-Scale Dairy Scheme is designed to resettle 647 families with adequate facilities for dairy and fodder production, acquisition of crossbred heifers and the development of zero-grazing units.

#### **Pungwe Valley Outgrowers**

The Pungwe Valley Outgrowers' Tea Project will develop 1 000 hectares for tea cultivation, with 667 outgrowers. Total green leaf production is set at 6 600 tonnes per annum. It is envisaged that total output of made tea will average 1 400 tonnes per annum.

### **Buhera District Rural Development Project**

The Buhera Rural Development Project is located in the poor, dry and degraded area of the upper catchment area of the Sabi Valley. The project is intended to rehabilitate and reclaim the area through implementation of sound land-use, soil conservation measures, grazing schemes, water supply and other infrastructure, credit and marketing facilities. The project is expected to stabilize physical and ecological conditions and promote higher standards of living through improved livestock production.

### **Honde/Pungwe Valley Development Project**

This project aims at the following:

- (i) encourage correct cropping patterns including replacement of cereal crops by three crops, introduction of demonstration farms, increase production of rice, barley, tea and coffee;
- (ii) improve livestock management and the draught power situation;
- (iii) provide support infrastructure, especially roads, marketing and transport;
- (iv) encourage and assist in the development of cooperatives for production and services;
- (v) provide credit facilities for productive activities;
- (vi) introduce small-scale irrigation schemes using perennial streams; and
- (vii) introduce correct land-use patterns.

### **Musikavanhu Irrigation Development Project**

About 1 500 hectares of irrigable land has been identified in the Mahusekwa communal area. About 750 hectares will be irrigated using underground water. The necessary infrastructure, including settlement will be introduced. The rest of the area will have a land-use re-organization programme which will include:

- (i) reinforced grazing land management;
- (ii) improved crop husbandry; and
- (iii) provision of support infrastructure such as roads and marketing facilities.

### **Nyanyadzi/Nenhowe Irrigation Project**

This irrigation project has 424 families supporting a direct population of about 5 000 people and indirectly up to 10 000 people. Increased demand for irrigation in the area has been evidenced by a long waiting list, illegal extension of the irrigated area and illegal abstraction of water upstream of the Nyanyadzi Weir. The project thus seeks to alleviate these problems by putting an additional 150 hectares under irrigation near the Nyanyadzi scheme. The water will be pumped from Odzi River to a night storage dam from which it will be gravitated. 150 new plot holders will be placed on this project (one hectare per family).

### **Bonde Irrigation Scheme**

This project involves the development of 600 hectares for irrigation. The development includes a take-off weir canal and in-field canals, night storage dams, staff housing, access roads and perimeter fencing. The scheme is intended to meet the increased demand for irrigation.

### **Deure Block "C" Scheme**

The project aims at redesigning blocks B and C of the Deure Irrigation Scheme in order to increase agricultural output. It includes the rehabilitation of lined canals, construction of three fish ponds to be integrated with intensive vegetables, poultry and pig production.

### **Musikavanhu Irrigation**

The project which is in Natural Regional V is intended to increase food self-sufficiency and raise the incomes of the people in the Sabi Valley through expansion of irrigation facilities in the Valley. In addition, several bore-holes will be drilled for irrigating 400 hectares.

### **Nyamaropa Development**

The project involves redeveloping Block "A" which consists of 197,3 hectares. The objective is to construct 21 113 metres of lined canals to service the 197,3 hectares.

### **Chisumbanje Stage I**

The Chisumbanje expansion Stage I envisages expansion of the existing Estate and settler area of about 4 000 hectares of flood irrigated land. The project comprises the construction of a pump station on the Save River and main canal to serve 4 000 hectares of flood irrigated land. The irrigation will be implemented in four stages of 1 000 hectares each. Infrastructure will include housing for labour and management, settler housing offices, workshops and sheds.

### Tawona Extension

Great demand for land by people in the area has been felt for some time and planned extension is essential to prevent illegal expansion. The project will extend the present irrigated area by 71,64 hectares for settlement of 71 farmers who have no irrigation holdings at present.

### New local sales distribution centre in Mutare

The existing complex is no longer viable due to structural degradation and the age of the equipment. The new project will consist of a local sales and distribution complex which will serve the city of Mutare and its hinterlands.

Table 1 below gives details of the capital expenditure for the projects discussed above.

TABLE 1

MANICALAND PROVINCE: CAPITAL EXPENDITURE, 1986-1990 (Z\$'000)

Projects	Implementing agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87- 1990/91
Middle Sabi IIB	ARDA	7 800	1 750	—	—	—	9 550
Smallholder coffee and fruit project	ARDA	900	2 397	1 373	—	—	4 670
Rusitu small-scale	ARDA	2 950	3 170	—	—	—	6 120
Pungwe Valley Outgrowers	ARDA	—	—	2 532	2 148	1 831	6 511
Buhera District	ARDA	—	5 227	5 184	1 907	1 007	13 325
Honde Pungwe	ARDA	—	2 420	2 324	1 700	2 324	8 768
Musikavanhu Irrigation	ARDA/ AGRITEX	—	1 690	2 001	2 048	2 725	8 464
Nyanyadzi/Nenhowe	AGRITEX	1 650	1 205	805	1 000	1 340	6 000
Bonde Irrigation	AGRITEX	—	3 722	2 400	1 800	1 500	9 422
Deure Block "C"	AGRITEX	—	260	350	510	500	1 620
Musikavanhu Irrigation	AGRITEX	—	—	1 920	2 000	1 900	5 820
Naymaropa Development	AGRITEX	200	400	—	—	—	600
Chisumbanje Stage I	ARDA	—	18 505	23 516	12 909	12 742	67 672
Tawona Extension	AGRITEX	81	279	—	—	—	360
New local Sales Distribution Centre in Mutare	C.S.C.	1 038	—	—	—	—	1 038
Mutare Abattoir	C.S.C.	—	50	1 607	1 701	—	3 358
Vumba Coffee Farm	Y.S.C.	81	279	—	—	—	360
Chisumbanje Youth Project	Y.S.C.	10	10	11	10	10	51
Sanyanga Garden	Y.S.C.	11	10	10	10	18	59
<b>TOTAL</b>		<b>14 721</b>	<b>41 374</b>	<b>44 033</b>	<b>27 743</b>	<b>25 897</b>	<b>153 768</b>

### New Mutare abbatoir

The project seeks to provide a 100 head per day abattoir in Mutare to service producers in the Province.

In addition there are three projects for Youth (Vumba, Chisumbanje and Sanyanga Gardens) for production of crops and vegetables.

### MASVINGO PROVINCE

Most of Masvingo Province lies in Natural Regions IV and V. Only a small part of the province is in Region III. In other words most of the Province lies in poor rainfall regions in which intensive farming can only be carried out under irrigation.

Mixed farming is dominant in the Province and the main crops include finger millet, bush millet, sugar cane, cotton, maize and groundnuts. Cattle rearing dominates livestock production.

The Province has potential for increasing the production of goats, sheep and pigs. The Province is experiencing population pressure, both human and livestock. As a result marginal areas are increasingly being brought under cultivation and this has led to soil erosion and siltation of rivers and dams.

There are three large scale irrigation estates in the Province namely Triangle Limited, Hippo Valley and Mkwashine. A fourth newly opened irrigation estate is the ARDA Tshovani Scheme. The crops produced under irrigation are sugar cane, cotton, wheat, maize and citrus fruit.

An additional big dam, the Manyuchi dam, will be completed in 1988. The water will be used to irrigate 12 000 hectares of oil palm plantations. In addition to these large-scale irrigation schemes, there are a number of small-scale irrigation schemes which are currently operating efficiently.

Inspite of the arid conditions that prevail in the Province, there is potential for crop diversification through irrigation which would lead to higher levels of output. To this end, schemes such as the Lundi-Tende, Tokwe-Mukosi will be investigated.

Some of the major projects to be implemented during the Plan period are outlined below.

#### **Coordinated Agricultural and Rural Development**

The Coordinated Agricultural and Rural Development (CARD) project is intended to improve the agricultural performance of small-scale farmers in Gutu. Various measures which are intended to improve the performance of small-scale farmers have been designed and these include land-use planning, crop development, livestock development, farm technology, horticultural development and provision of agro-services. The key implementing agencies are the District Development Fund, the Department of Water Resources, the Department of Veterinary Services and the Ministry of Health. Coordination will be done by ARDA. It is envisaged that the CARD programme will be extended to the other districts in the Province with the various components of the programmes varied in accordance with prevailing local agro-ecological conditions.

#### **Mkwashine Ranch Irrigation Scheme**

The planned Mkwashine Dam is intended to develop the lowveld of Masvingo Province. The area will produce irrigated stockfeed. This project will be a finishing ranch.

#### **Sengwe Cattle Development Project**

This project is located in the Chiredzi District. Studies that have been undertaken in this area indicate that the best way of raising the standards of living of people in this dry region is to improve methods of cattle management especially in view of the prevalent overgrazing practices in the area. In this connection, Government will develop ground water systems to open up under-utilized grazing areas. Other programmes will include reclamation of major catchment areas which require a time period beyond the Five-Year Plan period.

#### **Masvingo Province Irrigation Programme for Rehabilitation and Expansion**

and output in the region. The basic infrastructure is already in place. For this reason, fifteen low cost irrigation schemes have been identified for rehabilitation and expansion. These include schemes such as Manjinji and many others.

#### **Partial Replacement of Existing Complex**

The project provides a partial rebuild of an existing factory complex. The new works will include a slaughter facility with capacity to handle 400 cattle and 200 small animals per day. It will also include a by-product process area, a cold store and hide curing and storage area.

#### **Replacement of Steam Raising Facilities**

Boiler House and Steam Raising facilities will be provided at the Masvingo factory in order not to jeopardize the preferred layout for the replacement abattoir.

#### **State Farm development—Sikato**

The project consists of Sikato and Ivyland Farms (1 746 hectares). So far, 409 hectares are under irrigation.

#### **Nemamwe Youth Project**

The youth project is situated at the Nemamwe Growth Point with a membership of 29 persons. The main agricultural activity is poultry.

Table 2 below gives the capital expenditure for Masvingo Province.

TABLE 2  
MASVINGO PROVINCE: CAPITAL EXPENDITURE, 1986-1990 (Z\$'000)

Project	Implementing agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87-1990/91
Carl (Gutu) . . . . .	ARDA	1 245	2 144	724	1 904	1 062	7 079
Mkwashine Ranch . . . . .	ARDA	—	170	603	0	0	773
Sengwe Cattle . . . . .	ARDA	—	121	307	304	630	1 362
Masvingo Irrigation . . . . .	ARDA	100	2 816	2 600	2 500	450	8 466
Replacement of Steam Raising-facilities at Masvingo . . . . .	—	150	388	—	—	—	538
Masvingo partial replacement of existing complex . . . . .	C.S.C.	—	2 108	6 006	20 000	39 394	67 508
State Farm Development—Sikato . . . . .	ARDA	1 560	470	450	544	571	3 595
Chikombedzi Youth Project . . . . .	Y.S.C.	5	10	3	4	—	22
Nemamwe Youth Project . . . . .	Y.S.C.	15	10	5	10	17	57
Repling waters . . . . .	(L.W.F.)	20	20	20	20	20	100
<b>TOTAL . . . . .</b>		<b>3 095</b>	<b>8 257</b>	<b>10 718</b>	<b>25 286</b>	<b>42 144</b>	<b>89 500</b>

## MASHONALAND CENTRAL PROVINCE

Mashonaland Central Province falls within Natural Regions II, III and IV. The Province has adequate and reliable rainfall and its suitable for both intensive and extensive farming. Crop and live-stock production are the major agricultural activities in the Province. The crops produced include tobacco, maize, cotton, sorghum, soyabeans, wheat, barley and groundnuts. The Province has potential for increasing and diversifying crop production, including horticultural crops. In addition to crop production, live-stock production (beef and dairy cattle) is an important agricultural activity in the Province. Potential also exists for the rearing of small livestock such as sheep, goats and pigs.

The projects outlined below will be implemented during the plan period and they are all planned to take into account the natural endowments of the region.

### Agra Joint-Venture Project

Agra Joint-Venture is a proposed joint-venture company between ARDA and a Bulgarian company, Agromodal which will develop Halstead Estates North of Harare. The farm will produce tobacco on 40 hectares, groundnuts on 40 hectares and about 90 hectares will be devoted to maize production. About 400 livestock will also be raised on the farm.

### Chiweshe Tractorisation

A tractor mechanization project is being carried out in Chiweshe to study the economic, technical, social and organizational aspects of mechanization in communal areas, especially in the area of cooperative development.

### Planting Seed Factory (Glendale)

The present plant is old and has become costly to maintain. It can no longer cope with the growing demand for planting seed. The project thus seeks to refurbish the factory so as to meet the increasing demand. The project also includes four locomotives, five tractors and ten micro-computers.

### Bulk Silos—Chiweshe and Bindura Scheme

This scheme provides for bulk handling facilities in the two respective communal areas.

### Drimwe Youth Project

The project is situated in the Chiweshe communal area and has a membership of 20 youths. The project has four agricultural components:

- (a) the poultry section producing broilers for sale with an average of one thousand broilers for sale per month;
- (b) piggery section which produces porkers for sale to Colcom Central Cooperative Limited;
- (c) goat breeding section; and
- (d) the crop production section which is mainly dry land farming with maize as the main crop.

Other projects to be undertaken during the Plan period include grazing schemes in Chiweshe, Mt Darwin, Nyatu and Musana. In addition, irrigation schemes in areas such as Godzi, Gitsa, Machaya and Kapembere have been identified and will be studied during the Plan period.

Table 3 below shows the capital expenditure for the projects discussed above.

TABLE 3  
MASHONALAND CENTRAL: CAPITAL EXPENDITURE 1986-1990 (Z\$'000)

Projects	Implementing agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87-1990/91
Agro joint venture . . . . .	ARDA	—	750	500	—	—	1 250
Chiweshe tractorisation . . . . .	AGRITEX	—	119	119	—	—	238
Planting seed factory (Glendale) . . . . .	C.M.B.	3 491	—	—	—	—	3 491
Bulk silos—Chiweshe . . . . .	C.M.B.	500	500	800	800	370	2 970
Bulk silos—Bindura . . . . .	G.M.B.	—	—	—	560	1 000	1 560
Drimwe youth project . . . . .	Y.S.C.	15	20	15	11	16	77
TOTAL . . . . .		4 006	1 389	1 434	1 371	1 386	9 586

## MASHONALAND EAST PROVINCE

A large part of Mashonaland East Province falls within Natural Regions II, III and IV, with small parts in Natural Region V. The Province receives high and reliable rainfall in Natural Region II and this makes it suitable for intensive farming. The potential for agricultural production is high in the Province. However, output is low because of degraded soil in many parts of the Province which resulted from inappropriate agricultural practices and cultivation of unsuitable crop varieties.

The Province produces a variety of livestock and crops. The major crops grown include maize, ground-nuts, cotton, sorghum and sunflower. The Province also has great potential for production of horticultural crops. There is a large number of perennial rivers including streams that flow for a greater part of the year. Inspite of this, there are limited irrigation schemes in the Province. The dam sites on the Mazowe, Shavanhewe, Nyagui, Chivale and Nyadire rivers offer great potential for irrigation schemes. In order to increase agricultural output in the Province therefore, Government will implement a number of projects during the Plan period. The most important of these projects are outlined below.

### Mashonaland East Smallholder Fruit and Vegetable Programme

The programme is aimed at encouraging horticultural production in communal areas as well as improve transport and marketing facilities. The programme includes:

- (a) Mutoko-Uzumba Mango and Vegetable Project for the expansion of fruit and vegetable production in this frost-free area. Exports of mangoes are envisaged in the long run;
- (b) Seke Fruit and Vegetable production and marketing;
- (c) Chinamora Vegetable project which will establish marketing facilities; and
- (d) Mbare Musika to improve receiving facilities.

### Wedza Virginia Tobacco Project

The Wedza Virginia Tobacco Project will promote small-holder virginia tobacco production. The project is intended to reach 160 to 200 small-scale farmers and seeks to achieve its objective through provision of credit facilities to the smallholder farmers to cover the initial cost of barn construction and operating costs and provision of a tillage unit to alleviate the draught power shortage in the areas covered by the project. Infrastructure such as access roads, boreholes as well as servicing collective nurseries and grading sheds will be provided where necessary.

### Additional Slaughter and Boning Capacity at Marondera

The project will provide two additional quick chillers and a 600 carton continuous freezer. This will effectively increase the kill capacity from 500 to 700 per day and the boning capacity by about 80 per cent.

### Extension to Primary Marketing Depots

The project is intended to reduce the burden of the high cost of transport for small-scale and communal farmers in areas such as Mutoko.

### Depot Extension—Murehwa Bag Depot

The project will provide bulk handling facilities at Murehwa.

### Additional Storage Handling and Storage Facilities: Cleveland Rudhaka

The massive increase in stock holdings and sustained high intake of grain in the area are straining the facilities at depots which were originally planned for smaller volumes. Thus, the project is intended to provide additional facilities at existing depots.

### Harare Multi-Purpose Complex Project

Provision is being made for the construction of a local sales and distribution complex and a national vehicle workshop with full ancillary facilities to replace the existing factory which has outlived its usefulness.

### Rudhaka Coordinated Rural Development Scheme

This programme will provide Rudhaka with management services which will link resettlement areas with communal lands. The scheme also involves the development of agricultural cooperatives in the area.

### Mere Estate Farm Youth Project

The project has a membership of 28 youths and the main activities include tobacco farming on 20 hectares under irrigation, groundnuts farming on 20 hectares under dryland farming and soyabeans production on 20 hectares. An additional 40 hectares has been earmarked for sunflower and horticulture. Cattle ranching will also be introduced during the Plan period.

The investment programme for the Province for agricultural development will also include establishment of seven grazing schemes, cattle sale and cotton marketing points.

TABLE 4  
MASHONALAND EAST: CAPITAL EXPENDITURE, 1986-1990 (Z\$'000)

Projects	Implemen-ting agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87-1990/91
Mashonaland East small holder fruit and vegetable . . . . .	ARDA	500	2 129	924	1 029	430	5 012
Wedza Virginia . . . . .	ARDA	—	—	481	3 720	56	4 257
Additional slaughter and boning capacity at Marondera . . .	C.S.C.	—	10 000	966	500	500	11 966
Extension to primary marketing depots . . . . .	C.M.B.	—	364	500	500	500	1 864
Depot extension Murehwa Bag Depot . . . . .	C.M.B.	175	—	—	—	—	175
Additional storage handling and storage facilities Cleveland . . . . .	C.M.B.	520	1 000	—	—	—	1 520
Rudhaka . . . . .	G.M.B.	—	598	773	1 134	221	2 726
Harare multipurpose complex . . . . .	C.S.C.	2 560	7 497	33 703	17 432	6 624	67 816
Mere Estate . . . . .	Y.S.C.	200	300	300	300	100	1 200
<b>TOTAL . . . . .</b>		<b>3 955</b>	<b>21 888</b>	<b>37 647</b>	<b>24 615</b>	<b>8 431</b>	<b>96 536</b>

#### MASHONALAND WEST PROVINCE

Most of Mashonaland West Province is located in Natural Regions II, III and IV. The main agricultural activities in the Province are livestock and crop production. Some of the crops produced include maize, sorghum, cotton, tobacco, groundnuts, wheat, coffee, soya beans and sunflower. For the Province as a whole agricultural productivity and output are low, especially in communal areas.

The other problems associated with agriculture are overgrazing, shortage of grazing land, soil erosion and lack of draught power in the Zambezi Valley. For the Zambezi Valley in particular the problem of draught power is due to tsetsefly.

In spite of these problems, agriculture in the Province could be further developed and diversified through irrigation.

Several dam sites have been selected and further investigation will be carried out during the Plan period.

The projects to be implemented in the Province during the Plan period are outlined below.

#### Zambezi Valley tillage Unit Project

The presence of tsetsefly in the Valley prevents the rearing of cattle that would provide draught power. The project, therefore, attempts to solve the problem of draught power by providing about 25 tractors to the community in the valley. This will make possible cultivation of crops such as barley and cotton.

#### Kanyati/Gatshe Development Project

The project is intended to solve land-use and resource management problems in Nyaminyami District. The main components of the project are;

- (i) agricultural development including land conservation, farming systems, research, promotion of cotton cultivation, livestock and small-scale irrigation;
- (ii) wildlife management;
- (iii) infrastructural development, in particular water and roads;
- (iv) institutional support, including management training for community administrative staff, agricultural extension, credit and marketing; and
- (v) monitoring and evaluation in order to determine the best way of managing resources in marginal lands that are being freed of tsetsefly.

#### Mfuli Magonde Development Project

The Project is designed to exploit under-utilized natural resources in the Mfuli and Magonde communal areas. The area has potential for crop production and stock breeding and also has potential for development of water resources. In short, the project will provide a framework for a viable system of resource management.

### Doreen's Pride Project

The property of Doreen Pride consists of 11 000 hectares of land and is situated near Kadoma. It is a designated state farming enterprise. The irrigation section of the farm will be used for production of cotton, wheat and soya beans. There are also plans to develop a large scale dairy unit. ARDA will establish a Game Safari on the property to exploit the existing wildlife resources.

### Bulk Silos Development Programme

A number of bulk silos will be commissioned in the Province during the Plan period. These include Karoi, Lions Den, Mukwiche, Magunje and Mhangura. The programme seeks to provide bulk shipment facilities in the region.

### Powder and Butter Factory: Kadoma

The project seeks to develop six properties covering 45 000 hectares of land in the Battlefields area adjoining Doreen's Pride Estate. The project will also incorporate a game safari unit which is designed to exploit the game in the area.

### Kadoma Refurbishment Phase II

Funds will be provided for upgrading the veterinary services provided by the existing facility. In addition, the project will expand the boning capacity to a genuine 800 quarters a day and extend the facility's operating life.

### Additional Ginning Capacity: Kadoma

The project will increase the ginning capacity in the area by 50 000 tonnes in order to meet growing demand.

### Gin Press Replacement

The project seeks to increase the capacity of the plant and to save on high cost of maintenance and repairs of the existing press.

Additional projects which will be implemented during the Plan period are: the Kanyati project, Gatshe Gatsche, Madzongwe, Maramba, Munyati and Muzvezve irrigation schemes. Other projects which will be studied for possible implementation during the Plan period include the Omay Cashew Nut Project, Fruit Growing along the Ngezi river and market gardening projects.

Table 5 below gives details of the Capital expenditure for the major projects that will be implemented in the Province.

TABLE 5

MASHONALAND WEST: CAPITAL EXPENDITURE, 1986-1990 (Z\$'000)

Project	Implemen-ting agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87- 1990/91
Zambezi Valley Tillage . . . . .	ARDA	70	—	65	100	65	300
Kanyati/Gatshe . . . . .	ARDA	—	2 182	2 098	372	—	4 652
Mfuli/Magonde . . . . .	ARDA	—	—	1 821	1 739	1 701	5 261
Powder and butter factory, Kadoma . . . . .	D.M.B.	—	1 000	6 000	—	—	7 000
Gin Press replacement, Chegutu and Banket . . . . .	C.M.B.	—	1 247	1 000	1 500	1 073	4 820
Bulk silos, Karoi . . . . .	G.M.B.	1 000	5 000	2 000	3 060	1 000	12 060
Bulk silos, Lion's Den . . . . .	G.M.B.	800	1 000	1 500	1 300	1 010	5 610
Bulk silos, Magunje . . . . .	G.M.B.	—	2 000	4 000	3 500	2 000	11 500
Bulk silos, Makwiche . . . . .	G.M.B.	500	500	800	800	370	2 970
Bulk silos, Mangura . . . . .	G.M.B.	—	—	2 000	2 500	3 000	7 500
Depot extension, Magunje . . . . .	G.M.B.	175	—	—	—	—	175
State Ranching Development, Battle-field . . . . .	ARDA	—	2 000	2 561	—	—	4 561
Doreen's Pride Project . . . . .	ARDA	—	202	245	184	194	825
State Farm and Development, Sisi . . . . .	ARDA	—	243	327	356	360	1 286
Kadoma Refurbishment, phase II . . . . .	C.S.C.	156	—	—	—	—	156
Additional ginning capacity, Kadoma . . . . .	C.M.B.	—	—	9 000	6 000	—	15 000
Empty bag depot, Norton . . . . .	—	—	1 600	—	—	—	1 600
TOTAL . . . . .		2701	16 974	33 417	21 411	10 773	85 276

## MATABELELAND NORTH PROVINCE

The Matabeleland North Province falls in Natural Regions IV and V which are characterized by low rainfall and persistent droughts. Communities in the Province are engaged largely in semi-extensive livestock production. The Province has potential for growing drought tolerant crops.

The fishing industry at Lake Kariba also has potential for further development and Government intends to provide the infrastructure necessary for enhancing the industry.

While cattle rearing dominates livestock farming, potential exists for diversification and increase of production of other livestock such as sheep, goats and pigs. Available information also indicates that the Province has potential for the development of irrigation schemes for production of a variety of crops.

There are at least 30 major dam sites in the Province of which only a few have been built. Additional dam sites have been surveyed and others are still awaiting further investigation. It is estimated that uncommitted surface water available for agriculture and other development in the Province is about 7,8 billion cubic metres. This amount of water can irrigate about 55 864 hectares. These are not the only water resources available in the Province, there is a considerable amount of underground water in areas such as Nyamandhlovu.

There is also an aquifer in the region surrounding Deka River, stretching from Robin's Camp to the top end of Kariba. Government plans to develop irrigation schemes at Fanisoni, Lukosi, Tshongwe and Simangani during the Plan period.

The Province has potential for growing a variety of early maturing crops under irrigation. It should, however, be noted that irrigation would increase the cost of crop production. In view of this, it is necessary to develop irrigation technologies which save water and energy so as to reduce production costs.

The other projects which will be implemented in the Province during the Plan period include Castor oil project, Lortondale land preparation, Binga market gardening project, Binga cotton project, small grains project, Moisture conservation project and grazing schemes.

### New Bulawayo Dairy Factory

The present output of the dairy plant can no longer meet the requirement of the Bulawayo area. The plant and machinery are obsolete and, therefore need to be replaced. Furthermore, the present location is so small that the proposed expanded plant needs to be located on a larger land area. The project seeks to maximize production of UHT (long life products) while maintaining the present output levels of lacto and fresh milk.

### Additional Holding Grounds

The introduction of enzootic zones by the Veterinary Department as a result of Zimbabwe's entry into the EEC beef market has reduced the Commission's holding capacity for cattle purchased from areas behind the "EEC Veterinary Fence". It is for this reason that funds will be made available for the purchase of Umbusa and Winters Block farms which are ideally suited for the Cold Storage Commission's purposes.

### Bulawayo Abattoir

The project provides for the construction of a new 600-head per day abattoir (with provision to increase to 800 head per day) with full ancillary facilities to replace the existing factory.

The major projects and programmes to be implemented in the Province during the Plan period are outlined in table 6 below.

TABLE 6  
MATABELELAND NORTH, CAPITAL EXPENDITURE: 1986-1990  
(Z\$'000)

Projects	Implementing agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87- 1990/91
Animal Health Centre . . . .	VETS	150	300	300	—	—	750
Bulk Silo—Bulawayo . . . .	GMB	330	8 000	5 170	—	—	13 500
New Bulawayo Abattoir . . . .	CSC	—	4 951	27 922	34 185	34 185	101 243
New Bulawayo Factory . . . .	DMB	—	10 000	10 000	5 000	5 450	30 450
Additional Holding Grounds . . . .	CSC	400	400	—	—	—	800
<b>TOTAL</b>		<b>880</b>	<b>23 651</b>	<b>43 392</b>	<b>39 185</b>	<b>39 635</b>	<b>146 743</b>

## MATABELELAND SOUTH PROVINCE

Matabeleland South, like Matabeleland North, falls in Natural Regions IV and V which are characterized by low erratic rainfall and persistent droughts. The Province is suited for livestock production and has potential for production of drought resistant crops.

While cattle rearing dominates the production of livestock, the Province has potential for production of other livestock such as sheep, goats and pigs.

Chiredzi and Matopos Research Station are engaged in the breeding of drought tolerant crops which can be grown in Natural Regions IV and V. Thus, any breakthrough in research into these crops will greatly increase agriculture production in this vast Province.

The Province also has irrigation potential. Several major dam sites, the largest being the Oakley Block site on the Mzingwane River have been identified. The Tuli River also has scope for large-scale irrigation development.

It should be noted at this juncture that although potential for irrigated crops exists in the Province the cost of production would be higher than that in the part of the provinces that falls in Natural Regions I and II. It is, therefore, necessary to develop irrigation technologies which save water and energy, as well as promote production of drought tolerant and early maturing crops in order to reduce the cost of production. This also applies to the other provinces with significant areas in Natural Regions IV and V.

During the Plan period, Government will develop irrigation schemes at Moza in Bulalimangwe District, Lupane, Met Edgecombe in Matopo District, Sivole, Shobi, Bert Knott and Shashi in Beitbridge District. The Gwanda and Beitbridge irrigation schemes will be rehabilitated. In addition, studies will be carried out to determine the viability of Modali, Munyengezi and Limpopo schemes.

Government intends to establish large scale ranching in the Marula and Kezi areas. Grazing schemes will be developed in the District of Beitbridge, Bulalimangwe, Gwanda, Insiza, Matobo and Umzingwane. Planned marketing depots include three distribution centres in Bulalimangwe, five distribution centres and one warehouse in Gwanda, six distribution centres in Insiza and two distribution centres in Matobo District.

Some of the major projects are shown in the table below.

### **Model D Pilot Project**

The project is designed to test the suitability of the Model D concept as a standard resettlement formula for the low rainfall Natural Regions IV and V. The project is in the south of Gwaranyemba communal lands. It involves the development of two ranches and the replanning of adjacent communal areas and provision of water for human and livestock. It also involves the division of land between arable and grazing areas. This project should lead to good land management and increased output of crops and livestock.

### **Small Scale Irrigation Schemes**

Under this scheme six irrigation schemes will be rehabilitated. These include Sebasa, Kwalu, Rustlers' Gorge, Konkoni, Talunganga and Shashe.

### **Kezi—Marula Ranches**

The project seeks to develop the Ranches covering an area of 237 728 hectares. The current holding is 10 000 cattle and the number will be increased during the Plan period.

### **Ngezi Youth Project**

The project has five youth participants. The main component is crop production with sunflower, cotton and maize as the main crops. A piggery component will also be introduced.

The following Table gives details on capital expenditure for the projects described above.

TABLE 7

## MATEBELELAND SOUTH: CAPITAL EXPENDITURE, 1986-1990 (Z\$'000)

Project	Implementing agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87- 1990/91
Model Pilot Project	ARDA	500	1 350	1 732	1 522	1 092	6 196
Small scale irrigation schemes	AGRITEX	906	3 900	12 400	6 500	1 000	24 706
Keni Marula Ranches	ARDA	189	259	227	227	227	1 129
Animal Health Management Centres	VETS	300	500	400	—	—	1 200
Marketing depots	C.M.B.		300	300	150	—	750
Sigwezi	Y.S.C.	5	5	—	—	—	10
<b>TOTAL</b>		<b>1 895</b>	<b>6 314</b>	<b>15 064</b>	<b>8 399</b>	<b>2 319</b>	<b>33 991</b>

**MIDLANDS PROVINCE**

About 99 per cent. of the Midlands Province falls in Natural Regions III, IV and V. Agricultural activities in the Province include livestock and crop production. Semi-intensive and extensive farming are practiced. The crops produced include cotton, sorghum, groundnuts and maize.

While there are several dams in the Province, there is still potential for additional dams for irrigation which would help increase agricultural output in the Province. There are at present about 11 dam sites which need to be developed. Agricultural production can also be expanded by growing drought tolerant and early maturing crops. There is also scope for increasing the herds of goats and sheep.

Some of the investment programmes and projects to be undertaken in the Province during the Plan period are outlined below.

**Midlands Province Irrigation Scheme**

The scheme includes construction of irrigation infrastructure in those areas that experience frequent droughts. A feasibility study and subsequent design of 10 potential medium-size dams has been undertaken in order to enhance irrigation in the Province. Four of these sites have been chosen for dam construction during the Plan period.

The four projects will be in areas of low rainfall and these are: Biri, Moza, Insukamini and Hama Irrigation Schemes.

**Additional Ginning Capacity in Sanyati**

Present ginning capacity in the area is inadequate and prospects for increased output of cotton in the area surrounding Sanyati and Gokwe will increase the demand for ginning in the region. Thus, in order to fulfil present and future demand for ginning, a new ginnery with a capacity of 25 000 tonnes will be constructed.

**State Ranching—Sessombi IV**

Government will develop a commercial ranching venture at Sessombi IV which covers 49 300 hectares of land. The project will have 13 000 head of cattle including 1 800 breeding stock and 7 000 weaner steers. When the ranch is fully developed cattle sales will be 4 700 per year, valued at \$2,6 million, at current prices.

**Bag Depot**

The project will provide handling facilities for communal farmers in the area. The scheme includes three agricultural projects and these are: the Sanyati, Sadza and Zvirongwa Ndezvenyu Youth Projects.

The Sanyati project includes poultry farming, vegetable growing, cotton and maize farming. The Sadza project specializes in maize production and poultry while the Zvirongwa Ndezvenyu project includes cattle ranching, piggery and poultry keeping and crop production.

In addition, the development programme will include expansion of Mabwematemba. The other irrigation projects which have been identified need to be studied further. These include, among others, Ward, Dumba, Ruwenje, Sengwe, Chikunsvi and Vungu.

The capital expenditure for 1986-1990 for the Province is contained in the table overleaf.

TABLE 8  
MIDLANDS PROVINCE: CAPITAL EXPENDITURE, 1986-1990 (Z\$'000)

Projects	Implemen-	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87- 1990/91
Additional ginning capacity, Sanyati . . . . .	C.M.B.	600	8 525	10			9 135
Midlands irrigation package . . . . .	AGRITEX	200	270	1 000	1 353	1 000	3 823
UHT plant, Gweru . . . . .	D.M.B.	—	—	2 500	500	—	3 000
Bag depot, Gweru . . . . .	C.M.B.	—	1 000	1 500	2 572	3 042	8 114
State ranching, Sessombi IV . . . . .	ARDA	—	—	3 631	—	—	3 631
Doreen's Pride . . . . .	ARDA	—	202	45	—	—	247
Sadza Youth Project . . . . .	Y.S.C.	—	10	12	—	—	22
Zvirongwa Ndevedu . . . . .	Y.S.C.	30	20	20	20	18	108
TOTAL . . . . .		830	10 027	8 718	4 445	4 060	28 080

In addition to the programmes for the Province discussed above, Government will implement the following projects; foot and mouth disease control, animal management and construction of dip tanks.

The foot and mouth disease control project entails annual vaccination of cattle in vaccination zones. The project also includes additional fencing requirements. The total expenditure for the project is estimated at \$1,5 million.

The animal management project seeks to increase productivity in the livestock subsector in communal areas which have a 2 per cent. off-take compared to 20 per cent. for the commercial farming subsector. It is, therefore, essential that animal management skills be improved in communal areas. In order to achieve this, the Department of Veterinary Services will construct 250 centres in communal areas. So far 100 centres have been completed. The total cost of the project is estimated at \$8,42 million.

The project for the construction of dip tanks is intended to provide new dip tanks in areas where cattle still walk long distances for dipping or where the number of cattle exceeds available facilities. The project is estimated to cost \$1,52 million.

#### State Farms

Government plans to enhance the role of state farms in agricultural production. In this connection, additional state farms will be made available to ARDA as new operations. These new farms will put more emphasis on livestock development and irrigated estates. In addition, the farms will increase vegetable and fruit production. Two additional farms have already been identified and these are: Yomba Estate in Mashonaland West Province which will grow wheat, cotton and soya beans and Petronella in Manicaland Province which will grow coffee.

Expenditures for state farms are shown in table 9 below.

TABLE 9  
CUMULATIVE CAPITAL EXPENDITURE FOR STATE FARMS (Z\$'000)

Projects	Implemen-	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87- 1990/91
State farms . . . . .	ARDA	500	3 250	5 000	10 000	15 000	33 750
TOTAL . . . . .		500	3 250	5 000	10 000	15 000	33 750

#### HORTICULTURAL DEVELOPMENT

The need to promote agricultural diversification is highlighted in Volume I of the First Five Year National Development Plan. One of the areas recommended for such diversification is the development and expansion of the horticultural sub-sector. The largest single investment will be undertaken in Mvurwi where \$2,7 million will be invested for production of passion fruit concentrate for export. The venture will bring 800 hectares under horticultural production. Flower production is expanding rapidly with several large concerns investing about \$0,5 million each in the production of fresh cut flowers.

The Plan period will also see the establishment of a horticultural institution, the Horticultural Promotion Council (HPC) which will have the following functions:

- (a) give advice to growers and interested parties on the type and quantities of horticultural crops that should be grown and the appropriate season to grow the crops;
- (b) liaise with transport organizations to ensure that the most efficient use is made of available transport services;
- (c) advise producers on external markets that the country can exploit, particularly those in Europe and the Middle East; and
- (d) act as a co-ordinating body for all parties involved which include large-scale commercial farmers, small-scale commercial farmers, parastatals, communal farmers, co-operatives, transporters, suppliers of packaging and processors and marketing organizations.

Establishment of the Horticultural Promotion Council is regarded as an important step in the co-operation between Government and the private sector. Furthermore, two export bodies for horticultural crops will be established. These are the Zimbabwe Horticultural Export Corporation (HORTEX-Z) and the Horticultural Export Corporation (HORTEX-N) in the Netherlands.

HORTEX-Z will be responsible for ensuring that policies formulated by the HPC are implemented. It will be a service institution and will provide information and advice on market, marketing and technology, essential inputs not readily available in Zimbabwe, information on business regulations management of the Horticultural Export Revolving Fund which will be established in due course and provision of technical assistance and quality control to farmers.

HORTEX-N will be based in the Netherlands. It will be responsible for studying and analysing the European market with a view to providing farmers with relevant information on the market situation in Europe. HORTEX-N will also sell Zimbabwean produce in Europe and will carry out promotional activities.

#### RURAL DEVELOPMENT

Rural development is a long term process aimed at improving the well-being of the rural population which constitutes over 70 per cent. of the population. Improvement of the well-being of the rural population is dependent on a number of factors such as provision of adequate health and educational services, transport and communications, as well as provision of consumer goods (both durable and non-durable).

As stated in Volume I of the First Five-Year National Development Plan and in the previous Plan, rural development constitutes the centre-piece of rural development, especially in communal areas. Agricultural output in Communal areas should, therefore, be raised above subsistence level with resulting surplus used by rural people for purchase of capital and consumer goods. Part of the surplus can be used for the provision of social services as well as transport and communications services in the respective areas.

#### Resettlement Programme

In order to accelerate the pace of rural development, Government has adopted the rural resettlement programme as one of the strategies for agricultural and rural development. Under this programme, families are settled in such a way that their numbers and those of their livestock are within the carrying capacity of the land. The families are encouraged to use appropriate farming methods which will lead to increase in agricultural output and preservation of the environment.

#### Communal Areas Reorganization

The reorganization of Communal areas is a new feature in the resettlement exercise. It envisages settlement land adjacent to communal areas for rotational grazing of cattle for peasants. This will reduce pressure from Communal areas' grazing areas making it possible for the benefiting communities to expand their use of the land. This model of resettlement will emphasize the rehabilitation of communal areas and, through internal reorganization of these areas, the model will be the main tool for the identification of potential settlers for the translocation models A, B and C.

## Public Works Programme

The Food-for-Work Programme, commonly known as the Public Works Programme, will become a permanent feature of rural development. The programme will be launched during the first year of the Plan period. In this regard, the new arrangement will make possible forward planning which is essential for efficient use of resources.

The construction of dams, weirs and irrigation infrastructure, as well as catchment and gully reclamation are some of the projects which will be given priority during the Plan period.

TABLE 10  
RURAL DEVELOPMENT CAPITAL EXPENDITURE (\$'000)

Programmes	Implementing agency	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87- 1990/91
Models A and C	Department of Rural Development	16 301	18 106	17 250	17 500	18 250	87 407
Model B	Department of Rural Development	1 500	625	3 000	3 500	3 750	12 375
Model C	Department of Rural Development	1 000	1 000	1 500	1 000	1 250	5 750
Communal Area Reorganization	Department of Rural Development	1 000	1 500	2 000	2 250	3 000	9 750
Public Works	DDF	700	13 000	15 000	15 000	15 000	58 700
Strengthening the role and work of Women in Rural Development (Mashonaland West)	Ministry of Community and Co-operative Development and Women's Affairs (MC & CDWA)	1 163	455	489	450	—	2 557
People's participation in Community Development through promotion of self-help organization (Mashonaland Central)	MC & CDWA	134	134	134	—	—	402
Rural Development Demonstration Project for Women (Matebeleland North-Binga)	MC & CDWA	294	347	199	—	—	840
Community Development Fund	MC & CDWA	446	730	700	600	500	2 976
TOTAL		22 538	35 897	40 272	40 300	41 750	180 757

### Agricultural Marketing Facilities

Most of the programmes and projects to be implemented during the Plan period are outlined in the Provincial sections of this chapter. The projects shown in the four tables below are specific to CSC, DMB, CMB and AFC.

TABLE 11  
COLD STORAGE COMMISSION: CAPITAL EXPENDITURE 1986-1990 (Z\$'000)

Project	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87-1990/91
Minor additions, replacements, reconstruction and Renovation . . . . .	1 866	2 239	896	1 000	791	6 792
<b>TOTAL</b> . . . . .	<b>1 866</b>	<b>2 239</b>	<b>896</b>	<b>1 000</b>	<b>791</b>	<b>6 792</b>

TABLE 12  
COTTON MARKETING BOARD CAPITAL EXPENDITURE 1986-1990 (Z\$'000)

Project	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87-1990/91
Depot improvements . . . . .	313	275	200	200	—	988
<i>Miscellaneous</i>						
Replacement depot equipment . . . . .	330	103	125	175	—	733
Lint cleaning facilities . . . . .	—	600	900	400	418	2 318
Plant, machinery and minor works . . . . .	120	200	100	150	205	775
Canteen facilities . . . . .	—	600	240	200	250	1 290
Rural depot housing . . . . .	—	378	500	500	400	1 778
Mechanical workshops . . . . .	—	600	—	—	—	600
Lint handling facilities . . . . .	850	—	—	—	—	850
Lint containerisation:—						
Feasibility study . . . . .	15	—	—	—	—	15
Acquisition of a ginnery . . . . .	—	2 000	—	—	—	2 000
<b>TOTAL</b> . . . . .	<b>1 628</b>	<b>4 750</b>	<b>2 065</b>	<b>1 625</b>	<b>1 273</b>	<b>11 347</b>

TABLE 13  
DAIRY MARKETING BOARD CAPITAL EXPENDITURE 1986-1990 (Z\$'000)

Project	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87-1990/91
Asceptic milk plant . . . . .	—	15 000	—	—	—	15 000
<i>Bulk milk handling</i>						
Farm tanks . . . . .	400	800	425	—	—	1 625
Vehicles . . . . .	—	252	300	360	—	912
Co-extrusion plant . . . . .	—	1 000	800	800	500	3 100
Additions . . . . .	1 967	3 515	354	466	500	6 802
Replacements . . . . .	1 489	3 000	2 500	—	—	6 989
Distribution points . . . . .	729	—	—	—	—	729
Factory modifications . . . . .	300	2 785	3 058	2 122	1 797	10 062
<b>TOTAL</b> . . . . .	<b>4 885</b>	<b>27 852</b>	<b>7 437</b>	<b>3 748</b>	<b>1297</b>	<b>45 219</b>

**Credit facilities.** During the Plan period, the Agricultural Finance Corporation will continue to extend credit facilities to commercial, small-scale and communal farmers. The details of the AFC programme are given in Table 14, below.

TABLE 14  
AGRICULTURAL FINANCE CORPORATION CAPITAL EXPENDITURE 1986-1990 (Z\$'000)

Long term loans	1986/87	1987/88	1988/89	1989/90	1990/91	Cumulative 1986/87-1990/91
Commercial farmers . . . . .	25 000	24 000	25 000	23 000	24 000	121 000
Small farm credit . . . . .	16 328	14 000	17 000	17 000	15 200	79 528
Resettlement credit . . . . .	8 100	9 000	12 000	10 000	11 000	50 100
Co-operative . . . . .	—	2 000	—	2 000	2 000	6 000
National Irrigation Fund . . . . .	4 000	8 000	4 000	7 000	6 000	29 000
Small holders, coffee, tea, fruit . . . . .	300	500	—	—	—	800
<b>TOTAL</b> . . . . .	<b>53 728</b>	<b>57 500</b>	<b>58 000</b>	<b>59 000</b>	<b>58 200</b>	<b>286 428</b>

## MANUFACTURING

### INDUSTRIALIZATION STRATEGY

The manufacturing industry is the key sector for changing the structure of the economy and for achieving rapid and sustained economic growth and development. The industrialization strategy of the First Five-Year National Development Plan includes restructuring of the manufacturing sector (with introduction of modern techniques of production) and increase in the use of locally produced raw materials.

In addition, Government will play an important role in guiding and encouraging the necessary structural changes based on the integrated development of the three productive sectors, namely, manufacturing, agriculture and mining. This policy also requires the development of related economic, social and institutional infrastructures.

As already indicated in Volume I of the Plan, Government will increase its participation in the manufacturing industry because the manufacturing sector is both the key sector in overall economic development as well as the decisive sector in the physical restructuring of the economy. In addition, Government intends to exercise a greater degree of control on industries that it deems strategic to socio-economic development. In this connection, priority will be given to the establishment of new industries in the intermediate and capital goods subsectors because they are crucial in the establishment of an integrated industrial base. As a first move, Government will increase its participation in the manufacturing sector equity participation in joint-ventures with local or foreign partners or indirectly through the Industrial Development Corporation, the Zimbabwe Development Bank and the Zimbabwe Development Corporation. All public enterprises (agricultural and non-agricultural parastatals and Government owned or controlled private companies) and local authorities will be encouraged to participate in manufacturing. Local private companies will be encouraged to increase local control of the sector.

Foreign investment will still be necessary and crucial in those sectors where national sources of capital or skills are in short supply. Foreign capital is also needed to provide technology which local industries do not possess or cannot develop on their own and also to help penetrate foreign markets for some of Zimbabwe's manufactured goods and processed commodities. To this end, Government will make efforts to tap both domestic and foreign capital in order to raise the level of investment in the manufacturing industry.

The sector is projected to grow at an average annual rate of 6,5 per cent. during the Plan period and this growth rate is expected to increase the contribution of the sector to GDP to about 30,0 per cent. by the end of the Plan period.

Wage employment in the sector is expected to increase from 169 000 workers in 1985 to nearly 200 000 by 1990. Future industrial development will require an increasingly large number of skilled manpower at all levels of operation. The transformation and control of the economy by Zimbabweans enunciated in Volume I of the Plan requires an increased supply of indigenous skilled manpower who will make possible the transfer of top managerial positions to Zimbabwe nationals.

In order to achieve the target growth rate for the sector as stated above, an investment of about \$1,4 billion is required over the Plan period. About 30,0 per cent. of this investment will be undertaken by the Public Sector and the remainder by the private sector. Investment by the private sector is expected to be in new industrial projects and in the reconstruction and modernization of existing plants.

Industrial exports are expected to increase from \$560 million in 1985, to \$830 million in 1990. This is equivalent to an average annual growth rate of 8,2 per cent. per year over the Plan period. Export of capital goods will be promoted to reach an annual growth rate of about 13,0 per cent. This will require a significant increase in funds earmarked for the export credit scheme.

Efforts underway to mobilize additional foreign currency from international organizations would boost production for both domestic and external markets, but much more needs to be done in order to reach the appropriate level of foreign currency required by export-oriented and related industries.

The long-term industrialization strategy attaches great importance to the benefits which can be obtained through international cooperation. Zimbabwe is committed to SADCC and the PTA because by their nature, these institutions aim at promoting a meaningful regional division of labour and foreign trade as well as joint-investment among member states.

Each industrial project of international importance to be undertaken will be screened and approved for implementation only upon assurances which guarantee that the project would contribute to both national development and regional cooperation. Government will also encourage and support joint regional projects as well as joint industrial undertakings with the other developing countries.

## DEVELOPMENT OF SUBSECTORS AND MAIN PROJECTS

### 1. Intermediate Goods Subsector

This subsector has development potential which is based on the relatively well developed mining and agriculture sectors. This potential is also shown by the country's import statistics which indicate that import of intermediate goods constitute as much as 51,5 per cent. of total imports, with fuel products and chemicals accounting for 21 per cent. and 17 per cent., respectively.

This is why the future industrialization policy will concentrate on further import substitution of strategic products in the energy and fertilizer industries. Investigations are underway to determine the feasibility for expansion of the Triangle Ethanol Plant and establishment of additional capacity at Chisumbanje. Preliminary estimates indicate that the expansion at Triangle would require \$18 million, of which about \$9 million will be foreign currency. The cost of increasing capacity to the required level at Chisumbanje is estimated at \$220 million. The additional output of ethanol will be used for both energy and production of chemicals.

Government plans to increase the percentage of ethanol in petrol from 16 to about 20 per cent. by 1990. Ethanol can also be used to produce ethylene which is by far the most important raw material for manufacturing many plastics. Zimbabwe consumes about 40 000 tonnes per annum of the major ethylene based plastics. This level of consumption, which is valued at about \$40 million annually, is dependent entirely on imports. However, any attempt to introduce ethanol based plastics in Zimbabwe will be constrained by factors such as non-availability in Zimbabwe of chemicals such as chlorine and benzene which are inputs in the production of these plastics, economies of scale and transfer of technology and its up-dating.

The Industrial Development Corporation is conducting a study for establishing a small-scale chlor-alkali project in Zimbabwe with an annual output of 3 300 tonnes of chlorine, 3 630 tonnes of caustic soda and 7 000 tonnes of Hydrochloric Acid. These products are used widely in industries such as textile manufacturing, food processing, soap and detergents manufacturing, metal processing and plastics (vinyl chloride monomer). The cost of the project is estimated at \$15 million.

The critical factors in the project are: the non-availability of salt in Zimbabwe, high energy cost per unit of product and the small size of the plant.

Another industry to which Government attaches priority is the fertilizer industry. This is so because of its strategic importance in agricultural development and in particular, the communal farming subsector.

The problem concerning fertilizer is the overall low level of its use, especially in communal areas and the industry's limited capacity to meet future demand. The commercial farming subsector uses about 75 per cent. of all fertilizers available in the country. In the communal subsector, farmers use three to five times less fertilizers than in commercial farms. As a result, the yields in communal areas are much lower than those in commercial farms.

There are several factors which explain the low level use of fertilizers in communal areas and these are: low level of incomes, undeveloped distribution and transport system and inadequate credit facilities. Government plans to remove these constraints during the Plan period.

In the long run, however, the limited and aging production facilities used in the production of fertilizers could become the main constraint to sustained growth of the agriculture sector.

In 1981/82 when the country used the highest quantity of fertilizers, about 45 per cent. of the nitrogen component was imported in the forms of ammonia, urea and other nitrogen-based fertilizers.

Plants of four fertilizer producers average fifteen years and some of these plants use outdated technologies. The Sable Chemicals Company uses the electrolysis method in the production of ammonia and consumes about 20 per cent. of the electricity produced in the country.

Preliminary studies justify consideration for establishing a coal ammonia plant with a capacity of 200 000 tonnes/year. This level of output requires approximately 600 000 tonnes of coal suitable for conversion. The studies indicate that Hwange and Sengwe are the two alternative locations for exploitation of coal. It is possible to use the existing infrastructure of Hwange and the energy required in the process can be obtained from the nearby power generation facility. A feasible alternative is to locate the coal-based ammonia plant in the Sengwe area which has at least 200 million tonnes of open-cast low sulphur coal which is currently imported from South Africa at an annual cost of over \$11 million.

The Sengwe coal is ideal for conversion into various coal-based chemicals, notably ammonia for the fertilizer industry.

In this connection, Government has begun construction of a road in the Zambezi Valley which will enable mining ventures to proceed with establishment of multi-million dollar coal projects in the Sengwe area. The cost of the coal-based ammonia plant is estimated at \$323 million, at 1985 prices. Because of the size of the project and its technological complexity, Government will invite international partners to join in the implementation of this project.

The Mining sector represents a much smaller but important market for ammonia/ammonium nitrate which is the raw material for nitrogen-based explosives. Most of the explosives used in mining are imported. A civil explosives joint-venture project between IDC and Nitro-Nobel of Sweden is being considered by Government. When implemented, this project will enable the country to achieve self-sufficiency in civil explosives. The new factory will be established at Kwekwe, adjacent to the main new material ammonium nitrate produced by Sable Chemicals.

The capital investment for the ammonia project is estimated at \$6,8 million.

The study for establishing a chemical pulp and paper plant will be finalised during the Plan period. The project aims at producing 60 000 tonnes per year of bleached and unbleached chemical pulp and 20 000 tonnes of paper per year using locally available raw materials such as pine softwood, eucalyptus hardwood and wattle hardwood. It is projected that demand for paper will reach about 93 000 tonnes per year in 1990. Local production is estimated at 72 500 tonnes per year of which 13 700 tonnes will be exported.

It should be noted that chemical pulp is all imported. The imports amount to 20 000 tonnes per year. It is envisaged that the project will be established on the Transsau Estate near Mutare. The advantage of this location is that there are large commercial plantations of pine, eucalyptus and wattle timber within a radius of 160 km of the plant site. The forests are under-utilized and are estimated to have a net timber surplus of 550 000 cubic metres per year, compared to the project requirements of 310 000 cubic metres of pulp wood per year of which about 190 000 cubic metres is pine wood. The estimated investment for the project is \$350 million of which \$136 million is foreign currency.

Although the Zimbabwe Iron and Steel Company (ZISCO) will continue to be one of the country's leading exporters, Government plans to reverse the current situation where only 20 to 30 per cent. of the steel produced is used locally. In this connection, Government will support the proposed ZISCO modernization programme and the introduction of new product lines. Government will also monitor closely the co-operation between ZISCO and the capital goods industry with a view to increasing the use of ZISCO products in the manufacture of machinery and equipment. Government will also promote increased use of ZISCO's products for the construction of large scale industrial projects.

Steel sheet and steel plate are important basic inputs for many manufacturing industries. The steel industry also plays a vital role in the construction and transport sectors. The annual demand for steel sheet and steel plate is estimated at 130 000 tonnes a year. A plant with production capacity of 150 000 tonnes per annum can satisfy the local market only. Thus, a much larger plant would be required to meet domestic and regional demand.

It is estimated that the steel sheet and the steel plate plants which are to be installed at ZISCO will cost about \$300 million.

Another area in which Zimbabwe has potential is production of stainless steel as all the necessary raw materials are available in the country. These raw materials are coal, iron ore, chromium ore and nickel ore. Stainless steel billets are worth about eight times more than mill steel billets and are therefore more profitable on the world market.

Although there is no precise figure for the demand for stainless steel in the country, estimates indicate that Zimbabwe requires 400 to 500 tonnes of stainless steel per year and this is still far below the minimum efficient size of a plant for production of stainless steel. Thus, establishment of such a plant would require an external market which would absorb most of the stainless steel produced. In this connection, Government will seek a foreign investor who has access to the world market with whom to go into joint-venture in stainless steel production. The other SADCC and PTA countries will also be invited to participate in the venture.

The ferrochrome industry is the country's third largest foreign exchange earner after tobacco and gold. It is important to note that Zimbabwe has an eight per cent. share of the world's market for high carbon ferrochrome and a 15 per cent. share of the low carbon-ferro chrome. Any plan for expansion of the existing ferrochrome capacity should be based on world market demand because domestic consumption of ferrochrome is very low. This should be coupled with planned increase in domestic demand which can be accomplished through implementation of projects which use chrome ore or ferrochrome as inputs. The stainless steel project described above is one such project.

The chrome ore is suitable for the manufacture of chromium chemicals. The principal uses of the chemical grade chrome ore are in the manufacture of pigments for use in the tanning of leather and in the surface treatment of metals.

Although a metallurgical material, chromium metal is also produced from sodium bichromate and in this form, it is finding new and expanding markets in the manufacture of special alloys for anti-friction purposes. This could increase domestic use of chrome and ferro-chrome.

The metallurgy industry which includes iron and steel making, ferrochrome smelting, copper and nickel smelting and refining requires refractory bricks worth \$7 million annually. The refractory bricks based on magnesite and chrome ore represent about one half of total demand, with the aluminium bricks based on kyanite material constituting the other half.

Zimbabwe has abundant deposits of the three minerals which serve as inputs in the manufacture of refractory bricks. However, the raw magnesite from the country's largest known deposit near Kadoma requires a feasible beneficiation before it can be used in the manufacture of refractory bricks. The study of kyanite has reached an advanced stage and will be completed during the Plan period. A feasibility study completed in 1986 recommends the establishment of a kyanite calcination plant of 15 000 tonnes per annum and a high alumina refractories plant of 11 000 tonnes per year in the Mudzi District at Ky Mines. Of the calcinated kyanite produced, 7 200 tonnes will be for export, while 7 800 tonnes will be used in the manufacture of refractory bricks. At present, the high alumina brick requirement of about 3 400 tonnes per year is met through imports. The capital investment for the proposed plant is estimated at \$28.5 million, including, foreign currency equivalent to \$10.2 million.

Zimbabwe imports sheet and plate glass worth approximately \$3.5 million per year. Zimglass Limited (Gweru), which is the country's glass and bottle manufacturing facility and IDC are planning to expand the glass manufacturing factory by establishing a plant which will produce 6 500 tonnes of sheet and plate glass per year. The plant will cost approximately \$31 million, with an import content of about \$15 million. The project will be 80 per cent. based on locally available raw materials, such as dolomite, limestone, feldspar and silica sand.

Imports of high grade hydrated lime is about 80 000 tonnes valued at about \$5 million per annum. IDC and its subsidiary G. & W. Industrial Minerals are studying the feasibility of establishing near Harare a plant with a production capacity of 50 000 tonnes of high grade hydrated lime. High grade hydrated lime with over 99 per cent. purity is required for the two ferrochrome alloy smelters. It is also used for municipal water treatment throughout the country.

The most suitable limestone deposits in Zimbabwe are situated near Mutare and in the Glendale area, North of Harare. The latter site is strategically located in that it is near a railway facility.

The capital cost of the project is estimated at \$7,7 million which includes a negligible foreign currency component. Government will complete the study during the Plan period and will make a decision on when to implement the project.

Being a large grower of cotton, the country has potential for further development of the textile industry for both the domestic and external markets. The production of cotton yarn and fabrics will be encouraged because there is potential for export of the country's cotton yarn, fabrics and clothing.

It is envisaged that by the end of the Plan period, the textile industry could become one of the leading exporters and employer if existing plants are rehabilitated and additional factories are built. Spinning equipment is, on average, 20 years old while weaving equipment is about 16 years old. Estimates indicate that the cost of rehabilitating equipment is \$50 million.

The projects and investment which have been outlined in the last few pages do not exhaust all development possibilities in the intermediate goods subsector. A number of development opportunities in the metal and pharmaceutical industries are being examined. Investigations are under way to determine the feasibility of producing creosote locally for use in the treatment of timber and as an input in the manufacture of tanning resin glue used in the furniture industry. In addition, the possibility of establishing an asbestos spinning plant which would make possible the manufacture of heat resistant materials for protective clothing is being studied.

## CAPITAL GOODS

Imported capital goods account for about 30 per cent. of the country's annual import bill and the import dependence of the country's investment activity is estimated to be over 40 per cent. There is, however, room for import substitution which would reduce this dependence. In order to promote import substitution, therefore, Government will do the following: (i) investment in the capital goods industries will be encouraged; (ii) industries producing machinery, equipment and other capital goods for important sectors or subsectors such as tobacco, cotton, mining, metallurgy and others will be accorded the highest priority with respect to Government policy; (iii) Government will concentrate its Research and Development activities in these priority areas and the transfer of technology from abroad will be facilitated where necessary; (iv) the division of labour within the SADCC countries and the PTA area should be respected and joint-projects with the member countries will be encouraged and supported by Government; (v) protection of the industry in the local market will be provided where necessary; (vi) better cooperation between the capital goods industry and construction companies will be established, with the aim of increasing their capability to execute projects on a turn key basis at home and abroad.

The investment programme for the First Five-Year National Development Plan is estimated at \$7,1 million, of which about \$4,6 million will be domestic investment with the remainder consisting of planned imported capital goods and construction work by foreign contractors.

The agricultural sector which constitutes the centre piece of rural development is assigned \$998 million over the Plan period. Resettlement programmes as well as irrigation projects and other water development schemes will serve as a market for the manufacture of pumps and irrigation equipment.

The mining sector represents another significant market for pumps. Market analyses indicate that there is scope for introduction of the manufacture of larger and more sophisticated pumps.

Zimbabwe is the leading manufacturer of agricultural machinery and implements in the SADCC region and has the capacity to increase production of these items. These products have an advantage compared to other externally made products because the products are suitable for African conditions. In this connection, Government will support R and D in sectors such as combined plough seeder and fertilizer machinery cotton/tobacco sprayer and a combined maize picker/thresher.

There is a wide range of agricultural machinery and implements in the country and this has lead to problems related to availability of spare parts. It is therefore necessary to have a more coordinated approach to production of tractors and other machinery instead of looking at the fragmented, new assembly efforts. About 80 per cent. of tractor parts are made outside the plant by ancillary industries which already exist in Zimbabwe. The annual demand for medium-size tractors is estimated at 2 000 units. For the PTA region, the demand for this size tractor is estimated at 19 000 annually.

In this connection, Government will support the production of a national tractor of one make which is less than 40 horse power. In order to protect the infant industry, Government will restrict import of similar tractors and streamline imports of the rest of the tractor models and spare parts.

During the peak year, 1982, the vehicles industry assembled 8 520 passenger cars, 4 743 light commercial vehicles, 992 heavy vehicles and 284 buses. There is a wide variety of models in the country. The need for rationalization and standardization of the industry has been widely recognized. This is the reason why in 1986, Government introduced policy reforms which aim at eventually building one national car with two models, a small and middle size one. The policy also aims at promoting greater participation in the industry by local investors.

The nation's comprehensive railway system provides an opportunity for the local manufacture and maintenance of railway stock and related equipment. However, there is significant idle capacity in the industry in all phases of manufacturing such as wheels, axles, bogies and wagons. Exports by some manufacturers have been successful.

The manufacture of mining equipment has a long tradition in Zimbabwe. Although the import requirements for the sector required for its operation and capital development are rather low, there is still room for import substitution. Proposals for the substitution of imported explosives and refractory bricks are elaborated in the section on intermediate goods.

In 1983 Zimbabwe imported 17 000 safety lamps for mines, including racks. These can be manufactured locally. The engineering companies specializing in mining equipment will, therefore, continue research and development in areas deemed essential and feasible for substitution of imported mining equipment and spare parts.

Several large-scale projects have been planned for the energy and water development sectors and these require foreign financing and technology, including import of complex energy equipment.

Potential exists for increasing local participation in the sector's programmes through increase and diversification of production of electrical machinery and equipment. In this connection, foreign suppliers will be required to involve local firms in the production of electrical goods. In addition, tighter control will be imposed on the range and variety of imported electrical goods as a strategy for protecting the development of the local industry.

The Five-Year Plan envisages a housing investment programme amounting to \$1 040 million of which \$812 million will be public sector. Apart from the special building equipment and some building materials, the housing investment programme has a high local content with respect to inputs and management. An important factor which needs to be taken into account is that housing construction is a labour intensive activity. In short, housing construction does two things; it provides a market for raw materials producing subsectors and also creates additional employment opportunities in the sector and in subsectors that supply the necessary inputs.

## CONSUMER GOODS

In 1984, imported consumer goods accounted for about 8,0 per cent. of the total import bill. The proportion is higher if imported inputs for industries such as plastics, detergents and electronics are included.

The consumer goods subsector is an important employer of labour because of its size and the labour-intensive technology used in production. In this regard, the subsector has great potential for creation of additional employment opportunities. Government will therefore, promote expansion of this subsector. In addition Government will also support the development of small-scale industries particularly in rural areas and at growth points as a strategy for creating additional employment opportunities. This will be done through provision of infrastructure as well as provision of credit facilities and technical assistance through SEDCO. Special attention will be paid to the active participation of women in this process.

The industrialization policy in this subsector attaches priority to industries that produce mass consumer goods required to satisfy the basic needs of the population, especially in education, health, culture, sport and recreation, food, clothing, transport, communication and housing. The fast growing population and the related growth in demand for consumer goods provides scope for industrial expansion.