

## CHAPTER 2

### THE SOUTH AFRICAN FLOWER INDUSTRY

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#### 2.1 Introduction

This chapter analyses the structure and economy of the South African flower industry. Firstly, the major features of the South African flower industry are discussed, such as the products, growers, consumption, grower information systems and associations. Secondly, the South African indigenous flower industry (fynbos industry) is briefly described. Thirdly, the development contributions of the South African flower industry are discussed. Fourthly, the characteristics of the distribution system for flowers produced and flowers consumed in South Africa are noted. The final section of this chapter reports on a case study of the economic aspects of a few growers in the Pretoria and Johannesburg area.

#### 2.2 The major features of the industry

##### *Products*

The South African cut flower industry consists of a wide variety of flowers including roses, chrysanthemums, carnations, gypsophila, asiatics, irises and indigenous cut flowers such as proteas, freesias, Guernsey lilies and gladioli. The South African cut flower industry is currently valued at approximately R400 million and consists of approximately 420 ha of production area and 20 000 ha of natural environment where proteas, pincushions and ferns are harvested (Taschner, 1997b).

##### *Growers*

Most of South Africa's 935 flower growers are located within 300 kilometres of Johannesburg and supply approximately 70% of their produce to the Multiflora auctions in Pretoria and Johannesburg. Large growers (with about 5 ha) dominate this sector in South Africa and they supply the local market and have been involved in floriculture for many decades. In the Cape region there are also a few hundred export-oriented protea growers. This group ranges from "growers" who pick from wild tracts of veld to farmers who cultivate irrigated, orchard-style plantations of selected varieties. Many protea growers are retired urban professionals engaging in a second career as hobby-farmers in the hills around Cape Town.

South Africa also has a small but increasing number of commercial farmers who are beginning to diversify into floriculture. Despite these farmers' stated intention of exporting, most of their production has been directed at the local market (Anseew, 1998; Malter, Reitenbagh, Jaffee and Lambada, 1996).

### *Consumption*

From an international perspective the South African flower industry is still marginal. Out of 24 international countries, South Africa was ranked last with an annual per capita expenditure of approximately R3,78 on flowers (see calculation below). Switzerland was ranked first with a per capita expenditure of R385,00 per annum; Germany was ranked sixth with a per capita expenditure of just over R200,00 per annum; the Netherlands seventh with R170,14 per annum; Japan was ranked eighth; Britain fifteenth and the USA thirteenth, as illustrated in Table 2.1.

Country	Rank	Per capita expenditure (R)	Per capita expenditure (US\$)
Switzerland	1	385,00	178
Germany	6	200,00	94
Netherlands	7	170,14	80
Japan	8	160,00	75
USA	13	100,00	47
Britain	15	80,00	37
France	16	70,00	33
Spain	17	60,00	28
Ireland	18	50,00	23
Portugal	19	40,00	19
Hungary	20	30,00	14
Czechia	21	28,96	13,5
Czech Republic	22	25,34	12
Poland	23	18,12	8,5
South Africa	24	3,78	1,75

\* 1993 as base year

Source: Flower Council of Holland, *Export and Import Statistics*

According to various sources and estimates (Meyer, 1997b; Van der Merwe, 1997) approximately 70% of the flowers produced in South Africa are distributed via the auctions. The annual auction turnover for 1993 - 1997 is shown in Table 2.2. An upward trend can be seen, with an overall growth rate of almost 10% over the five year period, with an average growth rate of 19%. A gradual decrease in the growth rate was observed in 1996 and a sharp decrease to only 9% occurred in 1997. The reasons for this decrease on future sales still has to be ascertained.

Table 2.1: Per capita flower expenditure projections

Country	Rank	Per capita expenditure			Projected Growth rate
		1993 (R)*	1995 (R)*	2000(R)*	
Switzerland	1	206,34	385,53	445,26	13%
Norway	2	213,58	238,92	302,27	21%
Finland	3		219,01	253,40	14%
Austria	4		206,34	235,30	12%
Belgium	5		177,38	217,20	18%
Germany	6	170,14	173,76	177,38	2%
Netherlands	7	152,04	170,14	184,62	8%
Japan	8		170,14	182,81	7%
Denmark	9		168,33	204,53	18%
Sweden	10		155,66	184,62	16%
Italy	11		126,70	132,13	4%
France	12		115,84	146,61	21%
United States	13	86,88	101,36	148,42	32%
Slovenia	14		79,64	121,27	34%
Great Britain	15	76,02	68,78	83,26	17%
Greece	16		59,73	90,50	34%
Spain	17		50,68	65,16	22%
Ireland	18		48,87	43,44	-1%
Portugal	19		43,44	65,16	33%
Hungary	20		28,96	36,20	20%
Croatia	21		28,96	39,82	27%
Czech Republic	22		25,34	38,01	33%
Poland	23		18,10	28,96	38%
South Africa	24		3,04		

\* : 1995 as basis year

Source: Flower Council of Holland, Leyden, the Netherlands

According to various sources and opinions (Taschner, 1997b; Van der Meer, 1996) approximately 70% of the flowers produced in South Africa are distributed via the Multiflora auctions. The annual auction turnover for 1993 - 1997 is shown in Table 2.2 An increasing trend can be seen, with an overall growth rate of almost 100% over the past 5 years and an average growth rate of 19%. A gradual decrease in the growth rate can be seen from 1993 to 1996 and a sharp decrease to only 9% occurred in 1997. The significance of this sharp decrease on future sales still has to be seen.

#### Associations

Floriculture sector includes in South Africa:

If the above figures are taken into account it is possible to calculate the per capita consumption of South Africa's population of 41 244 000 (in 1995) with an average growth rate of 1,7% per year over the past 5 years (from 1991 to 1995) (AAS, 1998).

**Table 2.2: Total fresh flower sales on Multiflora auctions**

	1997	1996	1995	1994	1993
<b>Total sales (R)</b>	126 815 139	116 248 494	96 477 774	79 044 661	64 377 951

$$\begin{aligned}
 \text{(a) Per capita consumption in 1995} &= \text{R } 96\,477\,774 \text{ (auction turnover in 1995)} + 30\% \\
 &\quad \text{(produce not distributed through Multiflora) /} \\
 &\quad 41\,244\,000 \text{ (SA population)} \\
 &= \text{R } 125\,421\,106 / 41\,244\,000 \\
 &= \text{R } 3,04
 \end{aligned}$$

### *Scientific information systems*

South Africa has a good history of agricultural research and, as a result, data on general climate and soil have been collected in South Africa for many decades. This research information is used by some local floriculture advisers. Although scientific floriculture information systems are limited in capacity, the following institutions support the knowledge information system available to South African growers:

- the Agricultural Research Council (ARC) - Roodeplaat Diagnostic Centre, does research on
  - (a) soil samples
  - (b) identification of diseases (viruses, fungi and bacteria) and
  - (c) pest identification (Niederwieser, 1997).
- Potchefstroom University is the only academic institution conducting significant floriculture research in the region. Some local technical advisers have contracts with the laboratory at Potchefstroom for the analysis of soil and plant samples.
- The University of Pretoria does not do any major research on cut flower production but distributes the information gathered by the ARC in lectures on plant production.
- Consultants: various consultants serve the industry.

### *Associations*

Floriculture sector institutions in South Africa are mostly oriented towards the local market:

- *Multiflora*. About 660 South African growers in Johannesburg, Pretoria and the surrounding regions are members of the Multiflora auctions. The annual report from Multiflora is therefore a good indication of flower sales in South Africa. Multiflora auctions in Johannesburg and Pretoria are run strictly according to the Dutch clock system. Flowers are distributed from all the cities and villages in South Africa (Taschner, 1997a). The turnover at Multiflora auctions from 1/3/1995 to 28/2/1996 in Johannesburg was R95 million and in Pretoria R9 million. The past seven years show a growth in the auction turnover of between 15% and 20% per year (Anseew, 1998; Van der Meer, 1996).
- *The South African Flower Growers Association* concentrates on serving growers who primarily supply the domestic market.
- *The South African Protea Producers and Exporters (SAPPEX)* organisation is based in the Western Cape region and is the grower- and exporter-based sector organisation for the export-oriented protea industry. SAPPEX sponsors research, disseminates information and conducts trade promotion activities on behalf of the floriculture subsector specialising in proteas and other flora native to the Cape region.
- *Association for Cut Rose Growers in South Africa* serves its 170 members by supplying information about new production research that is published in international journals, and informing its members of marketing and market trends
- *Florimex*, the world's leading cut flower trading company, is owned by Dibrell Brothers, an American tobacco company, and has run export offices in Johannesburg and Cape Town for many years.
- *Gardenex*, a horticultural, agricultural and gardening exhibition, is held annually to promote the industry.

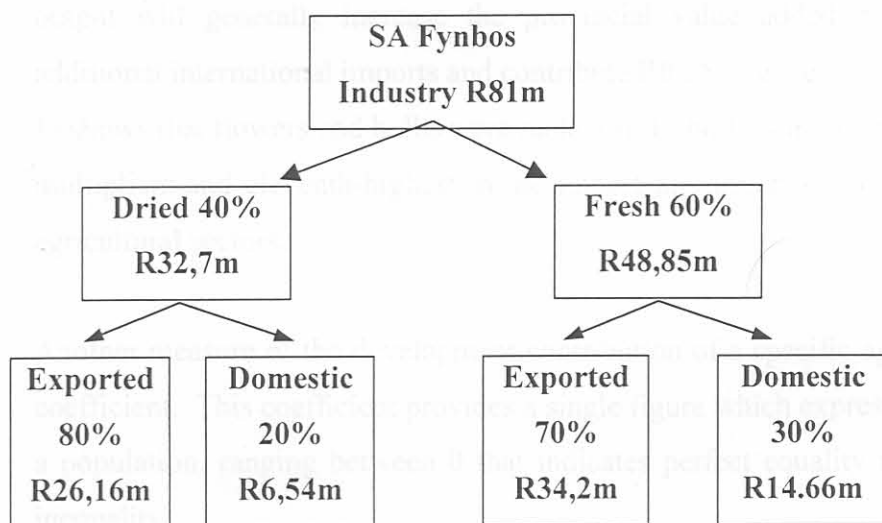
## 2.3 Fynbos

The indigenous flower industry in South Africa is botanically classified as Flora Capensis or Fynbos Biome. Flora Capensis is a gene pool of flowers such as freesias, Guernsey lilies and gladioli. Protea cut flowers are regarded as the backbone of the indigenous flower industry. This industry originated in the Western Cape area, when harvesters from disadvantaged communities started picking flowers from their natural habitat, the veld, and selling them on the flower markets and streets of Cape Town. The economic potential of fynbos was soon realised and after the first exports of Proteaceae in 1960, the industry developed into a considerable horticultural export industry with a continuous demand for the species

throughout the season. An estimated 2 500 metric tons of fresh material is currently exported each year. The value of the industry was estimated at approximately R81,7 million in 1997 and about 700 producers employ more than 4 000 people (Wessels *et al.*, 1997).

The wildflower market consists of fresh and dried products: fresh flowers represent 60% (R32,7 million) of the market and dried flowers 40% or R48,85 million. Exports of wildflowers were valued at approximately R60 million in 1996 when fresh wildflowers valued at approximately R33,5 million were exported and R14,5 million were sold on the local markets. Of the dried flowers marketed, only 20% (R6,48 million) were marketed domestically and 80% (R26,3 million) were exported. These figures are shown in Figure 2.1. According to Wessels *et al.* (1997) 90% of the exports are channelled to Europe and the rest to Japan and the USA. Among the European countries, the Netherlands is the largest importer (60%) followed by Germany (25%).

The quantities of flowering proteas in South Africa increase from May onwards and reach a peak during the South African winter and early spring. This, however, does not coincide with the European demand, which is highest during the European winter (November to March).



**Figure 2.1: SA wildflower industry**

Source: Wessels *et al.*, 1997

The domestic market is often used for wildflowers that are not suitable for export. The best quality products are usually exported to compete on the international markets. The most

important domestic sales points are Multiflora auctions, florists and other retail selling points, street markets, road stalls and chain stores (Wessels *et al.*, 1997).

## 2.4 Development contributions of the SA flower industry

Flower production is a capital, management and labour intensive agricultural industry. A recent study conducted in the Western Cape Province, gives an interesting perspective on the significance of this sector. The Western Cape Department of Agriculture and the Development Impact Analysis Unit of the ARC conducted this study. Fixed price multipliers (FPM) for employment, value added, imports and government revenue were used as variables in an agricultural social-accounting matrix describing the contribution of different agricultural industries and commodities in the Western Cape (Eckert, Liebenberg and Trotskie, 1997).

The FPM values for flowers and bulbs in Table 2 (Annex 1) can be explained as follows: The employment figures indicate that 114,4 person years of employment are created from a R1 million increase in additional final demand. The value added, imports and government revenue columns indicate the ratio of the expected change in the value for a given change in final demand. Therefore, every R1,00 of additional demand for the agricultural sector's output will generally increase the provincial value added by R1,45, require R0,40 of additional international imports and contribute R0,25 to government revenue. Table 3 (Annex 1) shows that flowers and bulbs were ranked sixth-highest in the employment and value added multipliers and eleventh-highest in the import multipliers of both the agricultural and non-agricultural sectors.

Another measure of the development contribution of a specific agricultural sector is the Gini coefficient. This coefficient provides a single figure which expresses the level of inequality in a population, ranging between 0 that indicates perfect equality and 1 that indicates perfect inequality.

Every sector in the economy contributes to household incomes with different levels of inequality in distribution. The flowers and bulbs sector has a relatively low Gini coefficient of 0,384 indicating relative equality in the distribution of household incomes. The flower and bulb sector's Gini coefficient was ranked fourth best among both the non-agricultural and agricultural sectors in the Western Cape.

## 2.5 Distribution

In this study the Gini coefficient is an indicator of the extent to which a change in the final demand of an industry or sector will impact on the equality of the incomes generated. As such, the flower and bulb industry ranks forth in terms of its impact on equalising income distribution. In other words, a greater share of the income generated from increased final demand reaches the poorer sections of the households in the Western Cape. The coefficient also to some extent is indicative of the low wages paid to workers in the industry.

The Western Cape Agricultural Social Accounting Matrix (WCAGRSAM) ranked the different agricultural and non-agricultural sectors in the Western Cape according to their contribution to development on the basis of the FPM and Gini coefficients, shown in Table 3 (Annex 1). Flowers and bulbs were ranked the third-highest contributor to development. The development contribution of fynbos in the Western Cape can be derived from the WCAGRSAM done by Eckert et al. (1997).

In this study, the fynbos sector was ranked the ninth-highest contributor to development out of 48 sectors. The employment multiplier was ranked 28th, the value-added multiplier 4<sup>th</sup>, the import multiplier 5th and the Gini coefficient of 0,456 was ranked 15th. This also shows that the fynbos industry is an efficient contributor to economic development.

A summary of the study by Eckert et al. (1997) indicates that flower production plays a surprisingly significant role in the Western Cape's economy and it can be assumed that the contribution of the industry has a similar effect in the rest of South Africa. It is therefore assumed that flower production is ranked as one of the most efficient contributors to development and growth in the South African economy, so it can be concluded that the flower industry can make a major contribution to economic growth, redistribution and development in South Africa.

Figure 2.2: Flow chart of possible distribution channels

Source: Ansoff (1998)

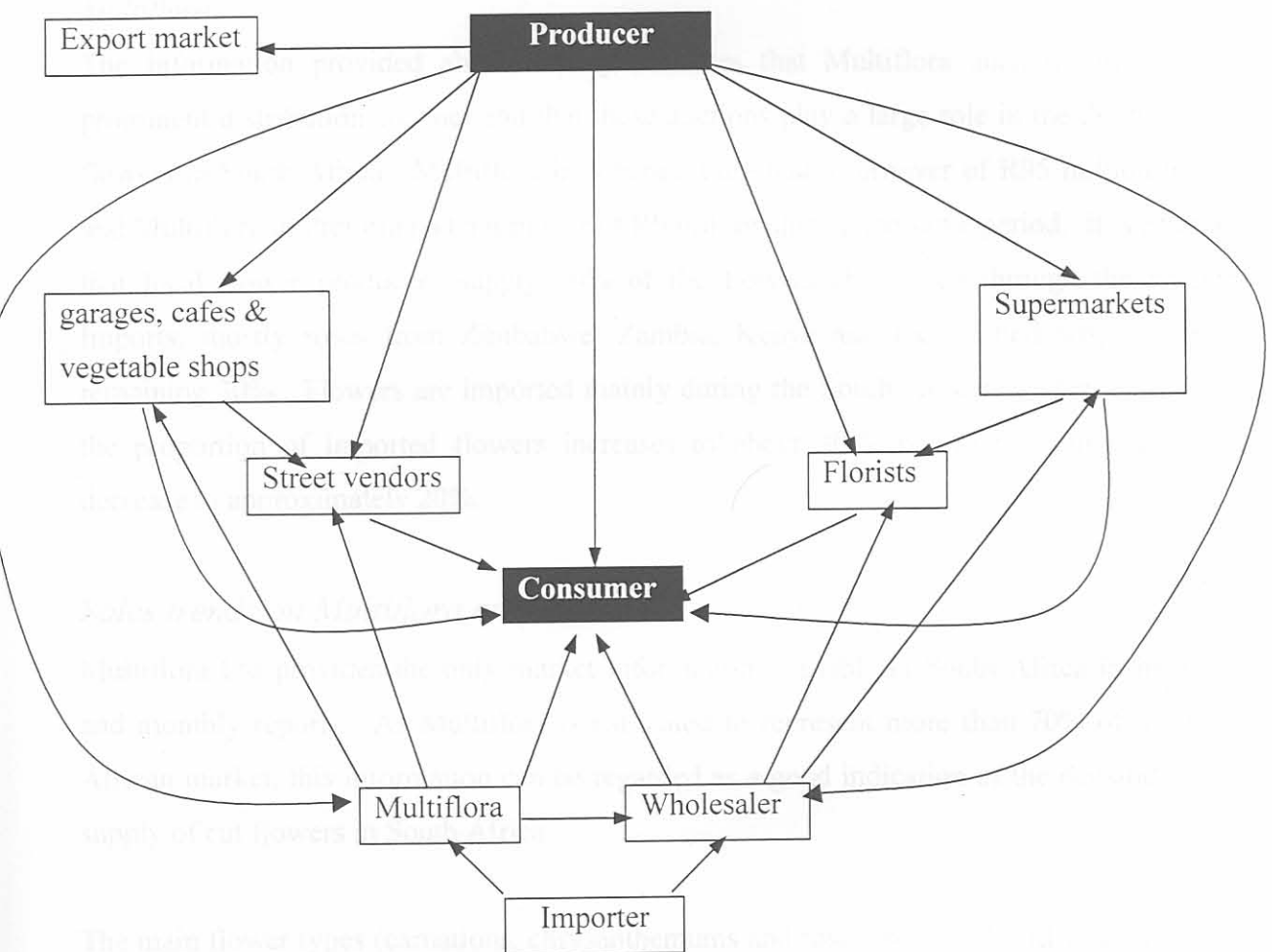
The findings of a study (see 2.6 below) conducted on a sample of 1000 households in the Johannesburg area, indicate that approximately 60% of people are employed in the



## 2.5 Distribution

### Structure

The findings of a study by Anseew (1998) are highlighted as they give a good indication of a typical flower distribution structure in South Africa. This study identified different distribution channels in the flower market. The main role players in these channels are: flower growers, Multiflora auctions (the main link in the distribution channel), export and import agents, wholesalers, garages, street vendors, supermarkets, vegetable shops, and florists. These role players are all interlinked in the process of getting the cut flowers to the consumer. These interlinked channels and different role players are illustrated in Figure 2.2.



**Figure 2.2: Flow chart of possible distribution channels**

Source: Anseew (1998)

The findings of a study (see 2.6 below) conducted on a sample of farmers in the Pretoria and Johannesburg area, indicate that approximately 60% of growers sell their produce at

Multiflora auctions, 15% supply directly to wholesalers and retailers, 13% export through an agent and 10% cut out the middleman and export directly. Information from other sources indicates the following. According to Van Der Meer (1996) 60% of produced cut flowers is distributed through Multiflora auctions, 30% through other domestic channels (in the same article a contradictory statistic of 40% is given, calling the credibility of the source into question) and 10% is exported. Taschner (1997a) estimates that 70% of South African produced cut flowers are sold via the auctions and the rest directly to wholesalers, florists and the public.

### *Role players*

#### *Multiflora*

The information provided above clearly indicates that Multiflora auctions are the most prominent distribution channel and that these auctions play a large role in the distribution of flowers in South Africa. Multiflora in Johannesburg had a turnover of R95 million in 1995 and Multiflora in Pretoria had a turnover of R9 million during the same period. It is estimated that local flower producers supply 70% of the flowers channelled through the auctions. Imports, mostly roses from Zimbabwe, Zambia, Kenya and the Netherlands, supply the remaining 30%. Flowers are imported mainly during the South African winter season when the proportion of imported flowers increases to about 40%, but in the summer imports decrease to approximately 20%.

#### *Sales trends on Multiflora auctions*

Multiflora Ltd provides the only market information available in South Africa in its annual and monthly reports. As Multiflora is estimated to represent more than 70% of the South African market, this information can be regarded as a good indication of the demand for and supply of cut flowers in South Africa.

The main flower types (carnations, chrysanthemums and roses) sold on Multiflora auctions in Johannesburg and Pretoria are shown in Figure 2.3 and Figure 2.4 respectively. The trends of Multiflora auctions in Johannesburg are analysed in Figure 2.3 and indicate the following: During the 1992/93 season, carnations topped the sales with a 24% share of the total value of Multiflora sales, chrysanthemums and roses followed with 18% and 11% respectively. During 1993/94 the percentage of carnations and chrysanthemums sold declined slightly

although sales of roses remained stable. From the 1994/95 to the 1995/96 season, sales of roses and chrysanthemums increased but sales of carnations decreased even more rapidly. During the 1996/97 season roses increased their share of sales to 19% of the total auction value, surpassing carnations (14%) and chrysanthemums (18%) and turning the whole picture around. Figure 2.4 shows the main flower types sold at Multiflora Pretoria, where carnations, chrysanthemums and roses each recorded an 18% share of the total value during the 1992/93 season. Over the next four-year period until the end of the 1996/97 season, sales of roses increased their market share to almost 24% while sales of chrysanthemums remained relatively constant with a share of 19%. By contrast, sales of carnations decreased their market share to below 12% of the total auction value.

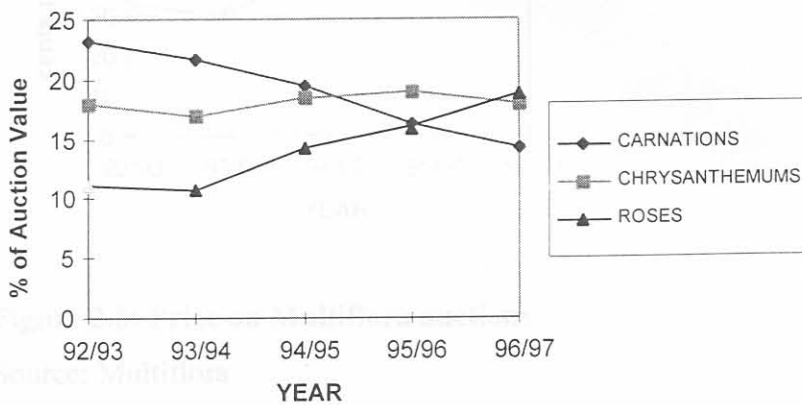


Figure 2.3: Multiflora Johannesburg: Performance of the main flower types

Source: Multiflora

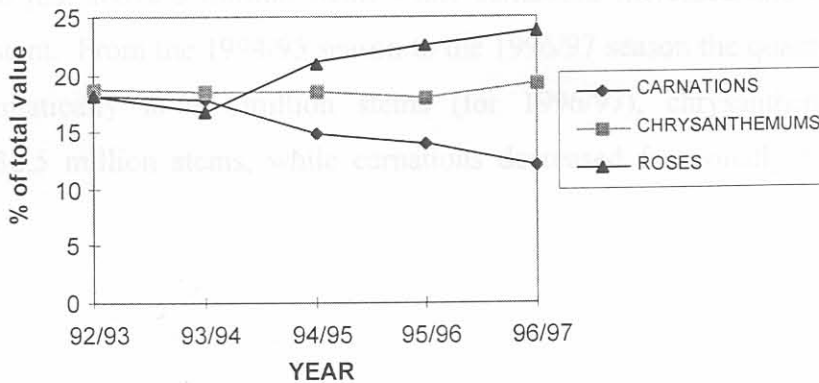
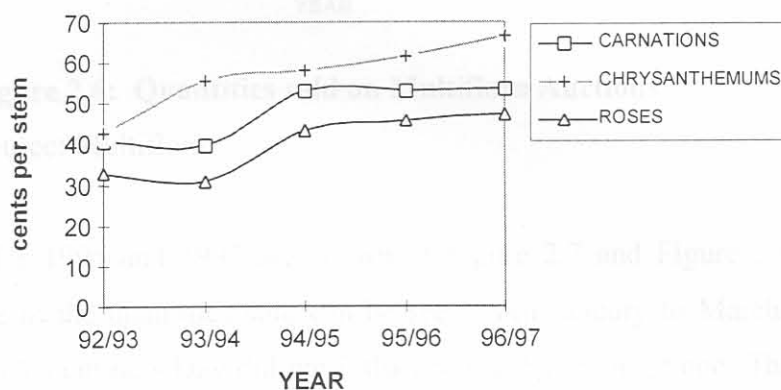


Figure 2.4: Multiflora Pretoria: Performance of the main flower types

Source: Multiflora

Prices for the three main flower types on Multiflora auctions are illustrated in Figure 2.3. All of the prices show an increasing trend from the 1992/93 to the 1996/97 season. Chrysanthemums remained the highest-priced flowers per stem, increasing from 42c per stem in 1992/93 to 66c per stem in the 1996/97 season. Carnations increased from 40c per stem to 54c per stem and roses increased from 32c to 46c per stem during the same period.



**Figure 2.5: Price on Multiflora auctions**

Source: Multiflora

Figure 2.6 illustrates the quantities of carnations, chrysanthemums and roses sold on the Multiflora auctions. During the 1992/93 season carnations recorded the highest quantity sold 32,5 million stems, with chrysanthemums in the second place with just below 25 million stems and roses with just above 20 million stems. During the 1993/94 season roses dropped dramatically to just above 5 million stems while carnations increased and chrysanthemums remained constant. From the 1994/95 season to the 1996/97 season the quantity of roses sold increased dramatically to 75 million stems (for 1996/97), chrysanthemums increased gradually to 32,5 million stems, while carnations decreased fractionally to just above 30 million stems.

Figure 2.7: Quantities sold on Multiflora auctions, 1992/93 to 1996/97

Source: Multiflora

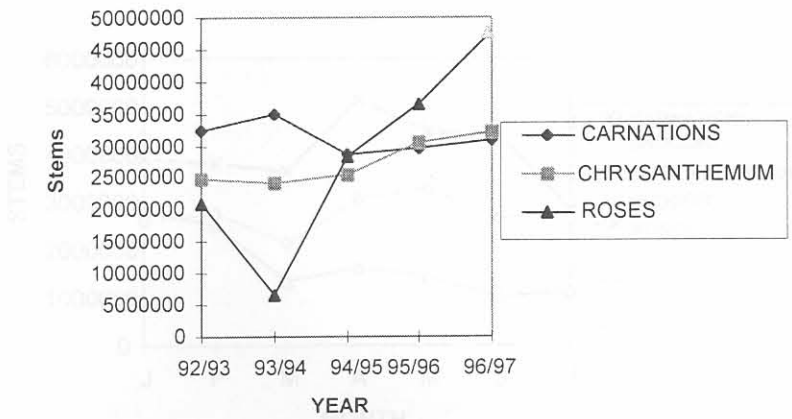


Figure 2.6: Quantities sold on Multiflora Auctions

Source: Multiflora

Monthly trends for 1996 and 1997 are shown in Figure 2.7 and Figure 2.8. A generally consistent decline in the quantities sold can be seen from January to March (even the high quantities sold on Valentine’s Day did not influence the decreasing trend. This indicates that consumers decreased their expenditure on flowers before and after Valentine’s Day, causing a constant or even a declining trend). Sales reach a low point in March and tend to increase during April, when sales of roses and chrysanthemums tend to increase quite rapidly. In 1996 (Figure 2.7) there was a decreasing trend from April to August and a sharp increase from September to October, followed by a decrease in November.

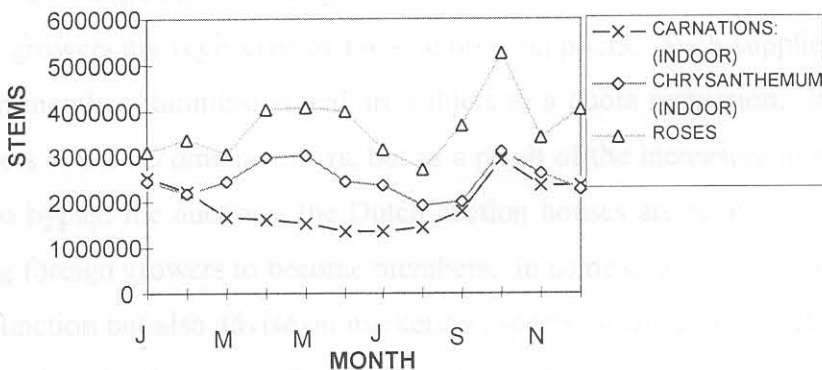


Figure 2.7: Quantities sold on Multiflora auctions (Jhb & Pta) 1996

Source: Multiflora

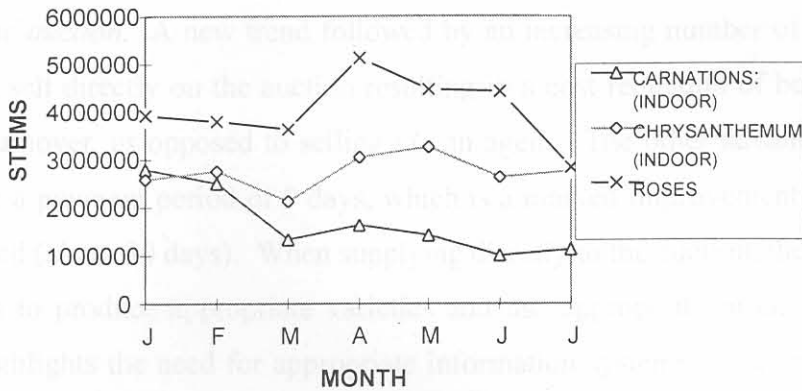


Figure 2.8: Quantities sold per month on Multiflora auctions 1997 (Jhb & Pta)

Source: Multiflora

## 2.6 Flower export market

Taschner (1997b) states that there is definitely a market for South African cut flowers, especially for roses, in Europe, the Middle East and the Far East. However the future success of the South African cut flower industry will depend on the correct utilisation of the available distribution channels. The most significant export channel for cut roses is the Dutch auctions, as these auctions serve suppliers and traders from around the world, and the prices established there influence the prices on markets worldwide. The grower can reach the Dutch auction either via an agent or directly:

- *Reaching the auction via an agent.* A number of South African growers previously utilised Dutch agents for marketing. These agents sold South African roses on the Dutch auctions, where these growers are registered as non-member suppliers. Such suppliers are required to pay a non-member commission and are subject to a quota restriction. In the past only Dutch growers could become members, but as a result of the increasing number of foreign growers who bypass the auctions, the Dutch auction houses are relaxing their restrictions and allowing foreign growers to become members. In some cases, agents not only perform the selling function but also advise on marketing aspects, such as the varieties to be grown and the type of packaging, as well as technical aspects. Another advantage of exporting via an agent is that the agent can combine shipments from different growers to reduce unit costs. These agents usually charge a commission of between 7% and 10% and pay the grower after about 30 days. However, South African growers are increasingly utilising other export channels where they can bypass the agent and eliminate the commission paid

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to the agent. As a result of this trend, new distribution channels have been developed and some agents have ceased operating in South Africa.

- *Directly to the auction.* A new trend followed by an increasing number of South African growers is to sell directly on the auction resulting in a cost reduction of between 7% and 10% of the turnover, as opposed to selling via an agent. The other advantage is that the auctions have a payment period of 5 days, which is a marked improvement on the agent's payment period (about 30 days). When supplying directly to the auction, the onus is on the local growers to produce appropriate varieties and use appropriate production practices. This point highlights the need for appropriate information systems. The option of selling directly on the auctions is considered viable for the grower, or group of growers, who can obtain a licence from an auction house.
- *To wholesalers via an agent.* The major advantage of bypassing the auctions is the saving in auction costs, but a commission of between 4% and 10% of the turnover would still need to be paid to the agent. The agents are usually based in the Netherlands and they often direct the flowers to a wholesaler based in a different country. The advantage of dealing via an agent is that some of the price fluctuations can be avoided, since prices can sometimes be negotiated in advance. The disadvantage is that eliminating the auction as a reputable intermediary entails greater risk.
- *Exporting directly to the consumer country.* Many distribution channels involve selling from South Africa via the Netherlands, possibly to a third country. Therefore selling directly to wholesalers (or even retailers) through an agent that typically charges between 15% and 20% of the turnover can reduce distribution cost (mark-ups, handling and transport costs). Some South African growers make use of other South African based growers who have associates mainly in Eastern Europe. Dealing with these locally based agents has the advantage that prices can be fixed and quality determined before exporting.
- *Bypassing the agent.* Bypassing the agent and selling directly to the trader means that growers can shorten the distribution channel and increase their prices, but this will increase the risk because the growers do not have a foreign representative if a dispute arises about quality and price (IDC, 1996).

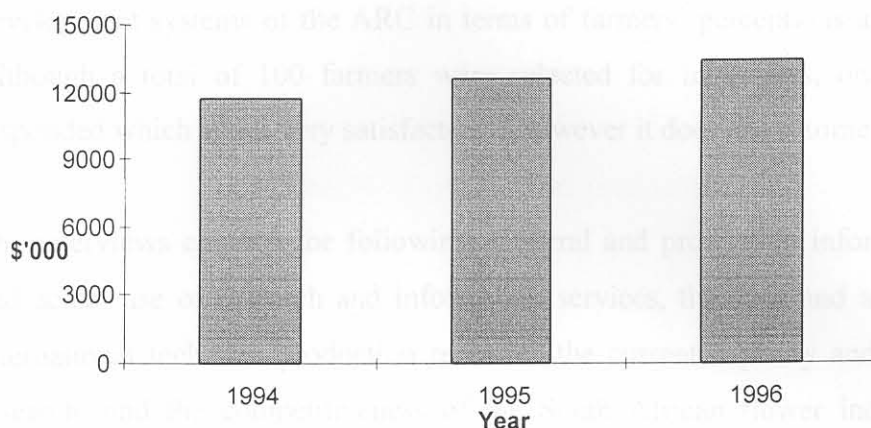
Table 2.3: South African flower export trends on major markets (\$'000)

Export destination	Year	All flowers	Roses	Carnations	Treated flowers	Chrysan themums	Other flowers
Denmark	1993	1			1		
	1994	62	40	9	13		
	1995	58	16	13	29		
	1996	71	24				47
France	1993	297	5		117		175
	1994	397	20		154		223
	1995	449	21		221		207
	1996	446	6		89		351
Germany	1993	4 612	128	3 251	1 090	124	19
	1994	4 203	76	2 900	1 148	68	11
	1995	4 862	59	3 430	1 345	26	2
	1996	4 118	3		1 543	3	2 569
Netherlands	1993	2 152	2		156	32	1 962
	1994	2 479	324		195	18	1 942
	1995	3 062	350		443	29	2 240
	1996	3 182	442		281	2	2 212
Italy	1993	890	45		106		739
	1994	853	15		101		737
	1995	816	24		122		670
	1996	673	9		102		562
UK	1993	332					
	1994	562					
	1995	694					
	1996	378					
Switzerland	1995	1 482					
	1996	1 176					
USA	1995	1 046					
	1996	1 239					
Japan	1995	2 131					
	1996	1 946					
Belg/Lux	1995	305					
	1996	161					
Spain	1995	48					
	1996	100					
Sweden	1996	171					

Source: IFTS, 1997



The above trade statistics indicate clearly that the value of flower exports is increasing steadily from year to year. This trend is illustrated in Figure 2.9. In 1994, 1995 and 1996 South Africa exported flowers to the value of \$11 71 000, \$12 609 000 and \$13 357 000 respectively.



**Figure 2.9: SA flower exports**

Source: IFTS, 1997

This increasing trend may look promising but in comparison with the rest of the world, South Africa is losing ground. For example in 1993 and 1994 South Africa was ranked the 15th largest cut flower exporter in the world, but in 1995 and 1996 this position deteriorated to 17th place. South Africa's share of world exports is also deteriorating. In 1994 South African flower exports made up 0,412% of world flower exports, but in 1995 this decreased to 0,3748% and the slight rise to 0,3796% in 1996 will not make much impression on the current downward trend. From the export statistics (see Table 2.3) it seems that there is a growing market for South African flowers in the USA, UK, the Netherlands, France and Denmark. These growing markets will probably present more opportunities to South African exporters of flowers than markets such as Japan, Switzerland, Italy and Germany which are currently showing a decreasing trend.

## 2.7 A case study of flower growers in the Johannesburg / Pretoria area

### 2.7.1 Introduction

This case study reports on an investigation of cut flower producers during October 1997 in the Johannesburg/Pretoria area. The objective was to assess the technology, research and development systems of the ARC in terms of farmers' perceptions and marketing activities. Although a total of 100 farmers were selected for interviews, only a small number (7) responded which is not very satisfactory. However it does show some interesting perceptions.

The interviews covered the following: General and production information, the availability and actual use of research and information services, the state and availability of local and international technical production research, the current capacity and availability of market research, and the competitiveness of the South African flower industry. (A copy of the questionnaire developed with the aid of ARC - Roodeplaat appears in Annex 5.) The results of these questionnaires are discussed in section 4.3. In section 4.4. the farmers' problems are identified and logically linked together by using the Objective Oriented Intervention Planning (OOIP) method (ABOS, 1994). This procedure provides the basis for formulating objectives and strategies.

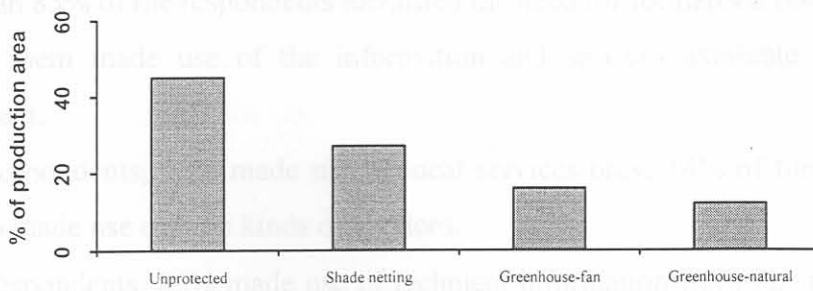
### 2.7.2 Production

Total cut flower production in South Africa is currently valued at an estimated R400 million produced from approximately 420 ha of protected area and 20 000 ha of the natural environment where cut flowers are harvested in their natural state. Roses generally dominate the markets, followed by chrysanthemums and carnations. The following information is typical of the industry:

- 45% of the production area is unprotected, 27% under shade netting, 16% in greenhouses with natural ventilation and 12% with fan ventilation (as illustrated in Figure 2.10).

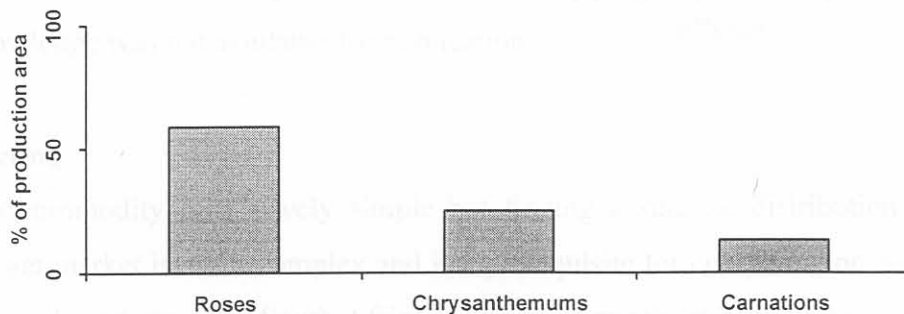
### 2.7.3 Research and information services

South Africa's scientific flower growers research and development is severely constrained by their lack of capacity. Even though the ARC has a large staff, it is not yet sufficiently mobilised to participate significantly in the research and development of the flower industry. The following information was obtained from the interviews:



**Figure 2.10: Production practices**

- Figure 2.11 shows that 59 % of the total production area is utilised for roses, 13% for carnations and 25% for chrysanthemums.



**Figure 2.11: Flower types**

- The growers have on average more than 33 years of experience in growing flowers for cutting.
- The average size farm is 4,5 ha.
- Growers employ approximately 16 full-time and 3 part-time labourers per hectare.

Growers have to keep informed about the latest research and scientific development so that they can remain competitive and meet the ever-increasing demands for quality and quantity.

### 2.7.3 Research and information services

South Africa's scientific floriculture research and information systems are currently constrained by their lack of capacity. Government support is limited and producers are not yet sufficiently mobilised to contribute significantly. The following interesting statistics about research and development were obtained from the study:

- All respondents make use of research and information services.
- More than 85% of the respondents identified the need for formalised research but less than 60% of them made use of the information and services available from the ARC – Roodeplaas.
- Of the respondents, 42% made use of local services only, 14% of foreign services only and 57% made use of both kinds of services.
- Of the respondents, 85% made use of technical information from input distributors, 14% of an export agent and 71% of private consultants.
- Growers spent an average of R5 571 (per capita) per year on these services and R8 285 (per capita) on their own (self-conducted) research (time + expenses).
- Of the respondents, 60% stated they were willing to make available for publication such information and the knowledge they had accumulated, but the remaining 40% stated that their knowledge was not available for publication.

### 2.7.3 Marketing

Producing a commodity is relatively simple but finding a suitable distribution channel to reach the target market is more complex and is a prerequisite for competing on both the local and international markets. The South African growers currently still focus on the production side rather than on marketing. This is apparent in the lack of developed distribution channels available (especially export channels) to the growers. The following confirm the lack of attention paid to aspects of marketing:

- Only 42% of the growers had embarked on some form of market research.
- Less than 60% of the growers had identified the need for formal market research.
- More than 50% of the production area was reserved for producing cut flowers to be distributed through Multiflora, 16% of production was exported through an agent, 6% exported directly, 12% sold to local wholesalers and 11% directly to the public.

South Africa could and should improve its competitive position in international floriculture by creating a strong marketing and production infrastructure.

Figure 2.12: Competitiveness indicators according to growers' perceptions

### 2.7.5 View's on the competitiveness of the industry

This final section summarises the factors that flower growers identified as adversely affecting their competitiveness individually and the extent to which these factors influence the competitiveness of the South African flower industry as a whole. These findings are illustrated in Figure 2.12 giving values ranging between 0 and 3, where a low value indicates a weak negative influence and a high value indicates a strong negative influence on competitiveness.

The respondent growers stated that labour problems such as low productivity and high wage rates, which scored 2,4 and 2,5 respectively, had the greatest negative effect on South Africa's competitiveness compared with other African countries. The availability of affordable credit scored a 2 indicting the strong negative effect that this factor has on competitiveness. Limited affordable credit is followed closely by unfavourable climate (1,63); ineffective information services (1,5); lack of research support (1,25); and the high cost of plant material (1,13). The remaining factors scored values below 1 indicating a small negative effect on competitiveness, namely timely delivery of input materials (0,87); currency exchange rate (0,86); transport costs (0,85); availability of new varieties (0,57); cost of information (0,5); inefficient domestic markets (0,38).

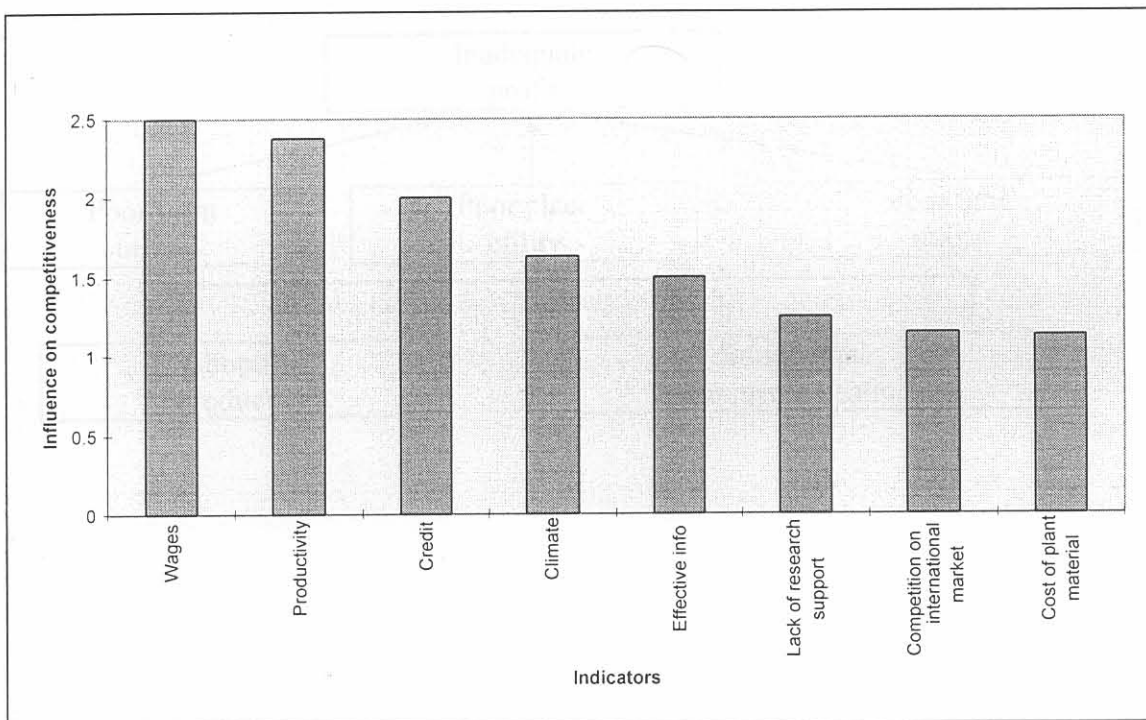


Figure 2.12: Competitiveness indicators according to producer perceptions

## 2.7.6 Strategic analysis: problems, objectives and strategies

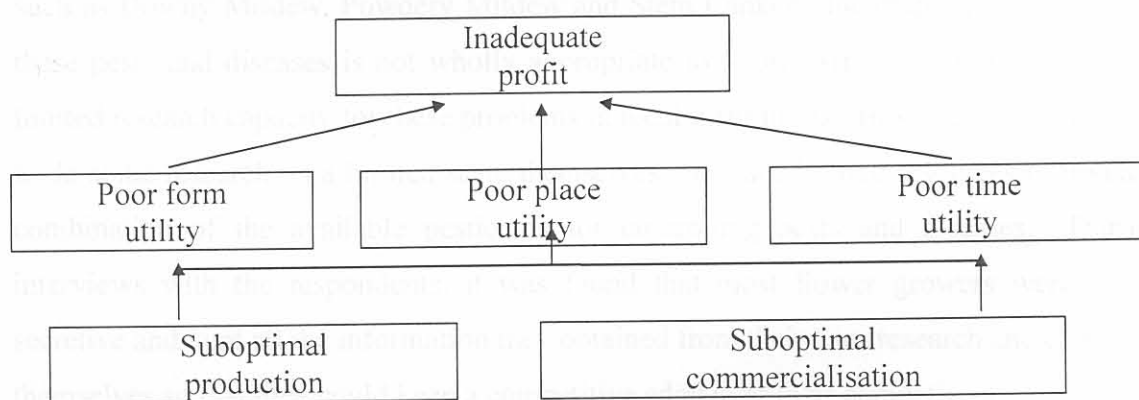
In the strategic analysis, the information obtained from the growers and correlated with expert opinions is analysed according to the Objective Oriented Intervention Planning (OOIP) method (ABOS, 1994). The first step determines the logical sequence of problems (or negative states) as expressed by the growers interviewed. This sequence is depicted by means of a “problem tree”. This is used to reverse the negative states into positive actions which become the objectives for strategic interventions (objective tree). The grouping of objectives and related activities provides the framework for the different strategies.

### 2.7.6.1 Problems identified by growers of cut flowers

*Commercial cut flower production (Described in Problem Tree 1)*

Low profits seem to be the main problem among growers of cut flowers in South Africa. This is linked to the poor utilisation of form, place and time utility. In turn, suboptimal production and suboptimal commercialisation lead to poor form, place and time utility.

#### Problem Tree 1 - Commercial cut flower production



*Suboptimal production (Described in Problem Tree 1.1)*

Production was generally considered to be suboptimal in terms of elements that sustain high-quality farming practices. The major reasons for this suboptimal production are given below.

**Inefficient management of labour**

Wages in South Africa are much higher than those in other African countries that produce and export cut flowers. South Africa has to be able to compete with these countries on the South African and the European markets. To become more competitive, South African growers will have to maximise labour productivity through longer and intensified working hours but this could cause dissatisfaction among the workforce. The wages of uneducated farm workers are generally lower than the wages of uneducated urban workers. Since most of the flower farms are close to an urban centre, the labourers can relatively easily find urban work and leave the farm work. Therefore if the labourers are dissatisfied with the wages or the long hours needed to meet productivity requirements, it is easy for them to resign and work elsewhere.

**Inappropriate disease and pest control**

Farmers identified the lack of appropriate chemical fungicides and pesticides that would prevent and control insects or diseases, in particular pests such as Red Spider and diseases such as Downy Mildew, Powdery Mildew and Stem Canker. International research done on these pests and diseases is not wholly appropriate to South African conditions and there is limited research capacity for these problems in local institutions. However, the farmers do try to do some research on a limited scale themselves, but have limited resources to find a better combination of the available pesticides for controlling pests and diseases. During the interviews with the respondents, it was found that most flower growers were extremely secretive and kept all the information they obtained from their own research and experience to themselves so that they could keep a competitive edge over their competitors.

**Weak knowledge base**

Production technology is imported mainly from Europe and is then adjusted by consultants, growers, input suppliers and institutions to make it more suitable to South African conditions. This technology increases productivity but producers have to realise that this technology was developed under vastly different conditions than those experienced in South Africa. The main problems with the European technology are –

- comparatively adverse weather conditions;

- limited arable land available; and
- the high cost of labour.

In Europe these problems encourage technological innovations that can mitigate the effect of bad weather conditions on flower production and restrict the number of labourers required, in other words they will lead to the development of capital-intensive technology.

By contrast, labour is relatively cheap in South Africa and weather conditions are more favourable than in Europe, therefore South Africa will demand more labour-intensive technological innovations.

### **Secrecy in the cut flower industry**

South African producers see one another as competitors instead of colleagues. Secrecy in the industry gives local growers a competitive edge over their domestic rivals, but will reduce the competitiveness of the South African flower industry on international markets. By working together and sharing their knowledge, South African farmers could find ways to cut their production and transport costs and optimise their production practices so that they would eventually become far more competitive on international markets.

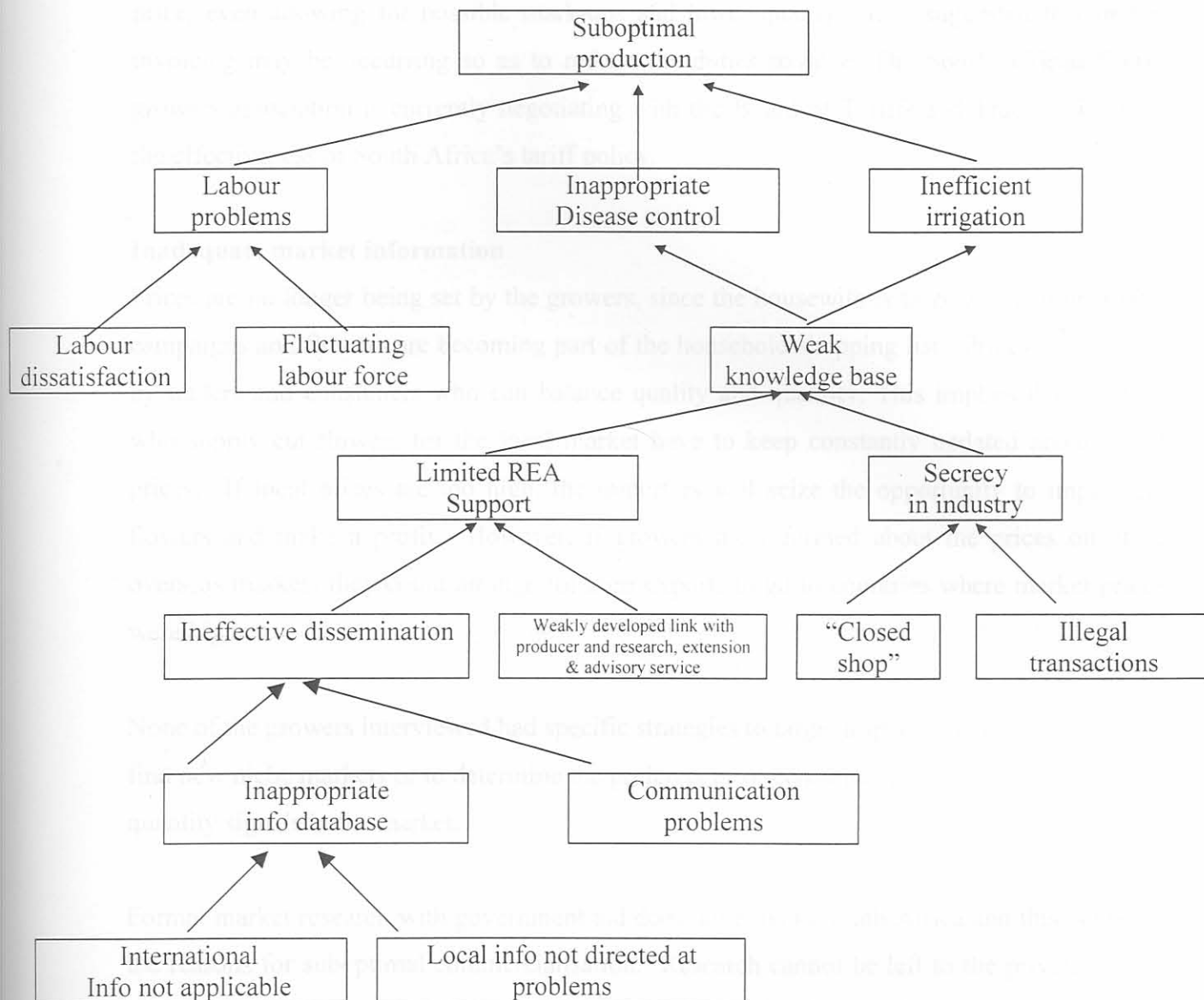
### *Suboptimal commercialisation described in Problem Type 1*

#### *Unfair international competition*

The GATS Convention stipulates that developed countries must not discriminate against developing countries. The European Union, yet South Africa has a 12.7% tariff on roses from 1 November 2004 to 31 October 2005. A 12.7% tariff from 1 November 2005 to 31 May 2006.



**Problem Tree 1.1. - Suboptimal production**



*Suboptimal commercialisation (described in Problem Tree 1.2)*

**Unfair international competition**

The Lomé Convention implies that developing countries can gain duty-free access to the European Union, yet South Africa has to pay an 18% tariff from 1 June to 30 October and a 12.7% tariff from 1 November to 31 May.

South African growers also face unfair competition from African imports. A duty of 20% is levied on cut flower imports to South Africa. A rough calculation based on import statistics indicates an average import price of R0,15 per stem, i.e. about one-third of the Multiflora price, even allowing for possible mark-ups and lower quality. It is suggested that under-invoicing may be occurring so as to reduce the duties payable. The South African flower growers association is currently negotiating with the Board of Tariffs and Trade to increase the effectiveness of South Africa's tariff policy.

### **Inadequate market information**

Prices are no longer being set by the growers, since the housewife is targeted by promotional campaigns and flowers are becoming part of the household shopping list. Prices are now set by traders and consumers who can balance quality and quantity. This implies that growers who supply cut flowers for the local market have to keep constantly updated about world prices. If local prices are too high, the importers will seize the opportunity to import cut flowers and make a profit. However, if growers are informed about the prices on other overseas markets they could arrange for their exports to go to countries where market prices were highest.

None of the growers interviewed had specific strategies to target a specific market segment, to find new niche markets or to determine the preferences of consumers, except for the price and quantity signals in the market.

Formal market research with government aid does not exist in South Africa and this is one of the reasons for suboptimal commercialisation. Research cannot be left to the private sector, since research is generally regarded as a public benefit rather than a private gain.

### **Relatively high wage rate**

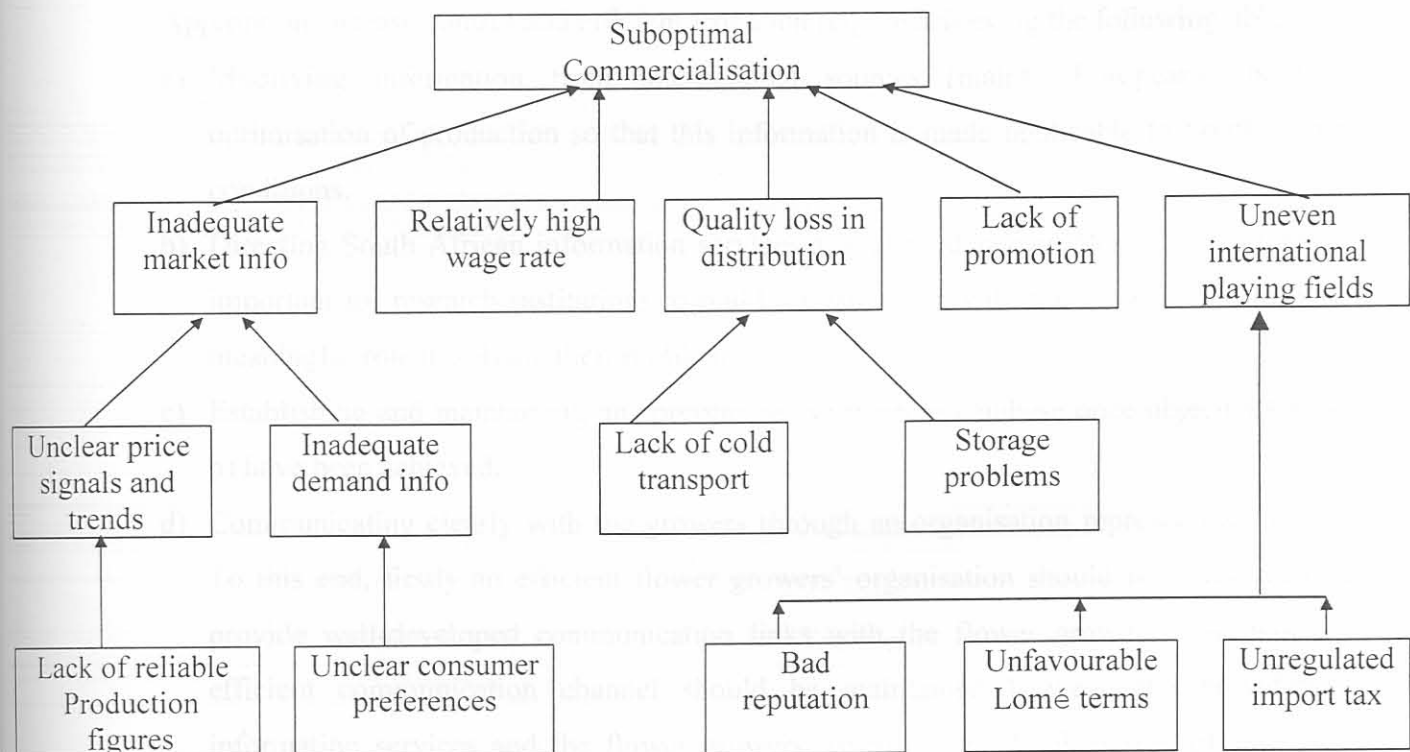
South Africa's wage rate is much higher than that of other African countries. In South Africa labour costs range between 10% and 20% of annual operating costs (excluding manager cost). By contrast, labour costs in Zimbabwe and Zambia range between 6% and 8% of annual operating costs (including manager cost). There is a great deal of European direct investment in African countries such as Zimbabwe, Zambia, Uganda, Kenya and Malawi because of the cheap labour available. South Africa's high wage rate makes the country less competitive in this respect. However, this disadvantage is an advantage if South African wage rates are

compared to those in Europe which range between 30% and 40% of the European growers' annual operating costs.

**Quality loss in distribution**

Few of the South African cut flower producers use cold trucks to transport their produce. This leads to a loss of the quality of flowers between the farm and wholesaler, retailer or consumer. This issue is critical if producers want to compete with the high quality of flowers on export markets. Cut flowers are highly perishable goods and every hour lost after harvesting, even in cold storage rooms and cold transport, causes a decline in quality. Consequently exporters cannot expect to compete with the fresh flowers, offered for sale sometimes only a hour after harvesting, on the European markets without making use of cold transport from the farm to the airport.

**Problem Tree 1.2 - suboptimal commercialisation**



### 2.7.6.2 Objectives and strategies

#### **Objective 1- Commercial cut flower production** (described in Objective Tree 1)

The major objective is to obtain adequate profit by increasing the place, time and form utility illustrated in Objective Tree 1. Production and commercialisation have to be improved so that utility can be increased. Increased production and increased commercialisation are depicted in Objective Tree 1.1 and 1.2 respectively, and described below.

#### **Objective 1.1- Improved production** (described in Objective Tree 1.1)

The strategies for improved production may require the following activities:

##### **Improved management of labour**

Better management of labour will require measures including training, wage negotiations and healthy management practices combined with incentive schemes, to retain the best people so that the labour force will be stable and content.

##### **Applying appropriate disease control and efficient irrigation**

Appropriate disease control and efficient irrigation require achieving the following objectives:

- a) Modifying information from international sources (mainly European) about the optimisation of production so that this information is made applicable to South African conditions.
- b) Directing South African information services at real producer problems. Therefore it is important for research institutions to build a relationship with the growers and to play a meaningful role in solving their problems.
- c) Establishing and maintaining an appropriate information database once objectives a) and b) have been achieved.
- d) Communicating clearly with the growers through an organisation representing them all. To this end, firstly an efficient flower growers' organisation should be established and provide well-developed communication links with the flower growers. Secondly, an efficient communication channel should be maintained between the providers of information services and the flower growers' organisation. If objectives c) and d) are combined, information would be disseminated with greater efficiency.
- e) Establishing a stronger link between the growers and research, extension and advisory services (REA). If objectives d) and e) are combined, it would be possible to increase the efficiency of REA.

f) Improving the collaboration among producers and also between producers and researchers. Producer/producer collaboration could increase their bargaining power to minimise marketing costs and maximise marketing opportunities. It could also optimise production practices by sharing production information. Combining objectives e) and f) could help to establish a strong knowledge base from which answers about appropriate disease control and efficient irrigation would be available.

**Objective 1.2 -Increased commercialisation** (described in Objective Tree 1.2)

For greater commercialisation, adequate market information has to be available, there should be minimal loss of quality during the distribution of flowers and more equitable opportunities on international markets.

**Adequate market information**

Gathering adequate market information requires firstly a sufficient supply of reliable production figures, price signals and trends. Secondly, knowledge of consumer preferences will result in better information about demand, which is a prerequisite for adequate market information.

**Minimising loss of quality during distribution**

Competing effectively on the international market requires sufficient cold storage and cold transport facilities for every minute that cut flowers take to reach the market, since the quality of the flowers deteriorates when they are not kept cool.

**Creating more equitable opportunities on the international market**

Three strategies should be employed to create a level international playing field:

a) Improving the poor reputation (low quality, inconsistent supply) of South African cut flowers, for example through the flower-labelling programme. This programme was initiated by the Association of German Flower Wholesalers and Importers. Flowers carrying this label will be positively promoted on the international market. Growers who want their flowers marketed under this label will have to open their farms to a panel of inspectors who will check the produce and allocate points according to set criteria. The main requirements are the proper use and storage of pesticides and proper training of staff.

The issues of protective clothing and the keeping of proper records of spraying and fertiliser programmes are also part of the labelling programme. If flowers from other sources are included in the farmer's own market mix, these sources will have to be accurately recorded to prevent uninspected, unlicensed produce from reaching the market under false pretences. A licensed grower may not use pesticides whose use is prohibited in the purchasing country. Paying staff at least a minimum wage is also one of the criteria and child labour is prohibited. The label affixed to each export carton costs US\$1 (Taschner, 1997a).

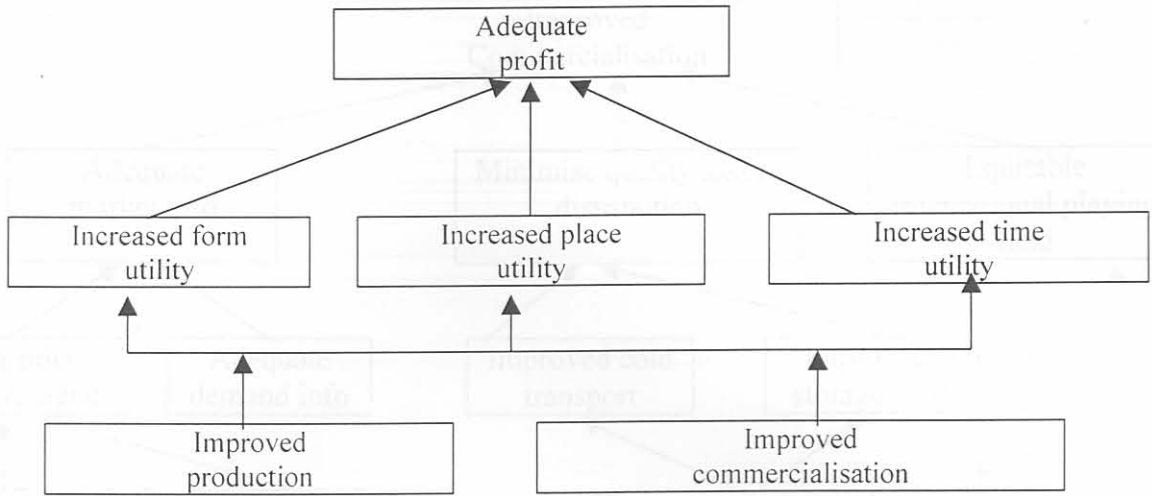
- b) Negotiating a decrease in the tariffs paid on European markets.
- c) Negotiating with the Department of Trade and Tariffs to ensure the correct enforcement of tariffs on imports of flowers.

### 2.7.7 Conclusion

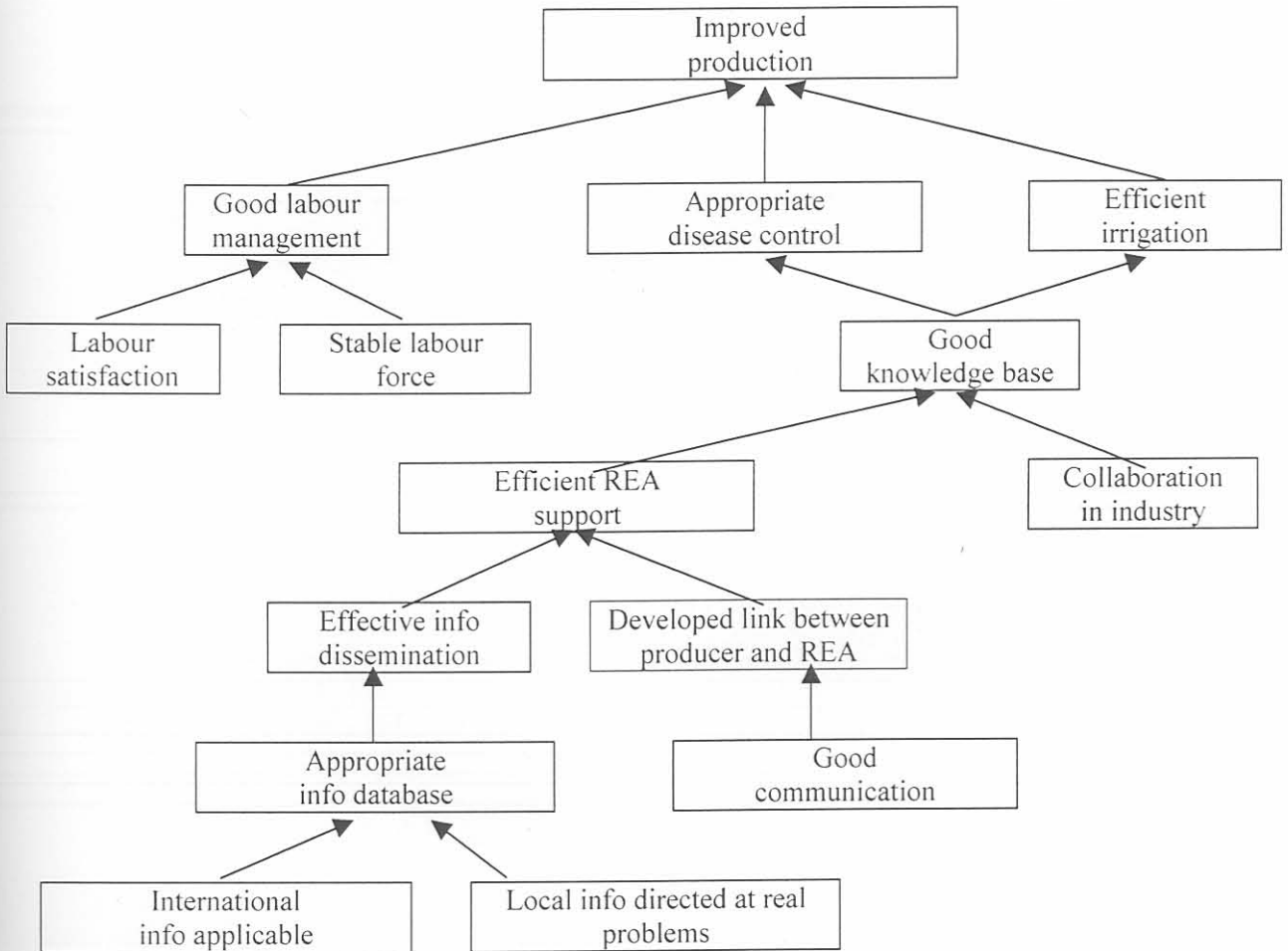
Identifying and structuring the problems experienced in the cut flower industry would be an effective way to establish the need for change in the system. By attending to these needs, South Africa's competitive position regarding the production and export of cut flowers would increase substantially. South Africa's competitive position could be improved either by supportive government intervention and policy formulation or private initiative.

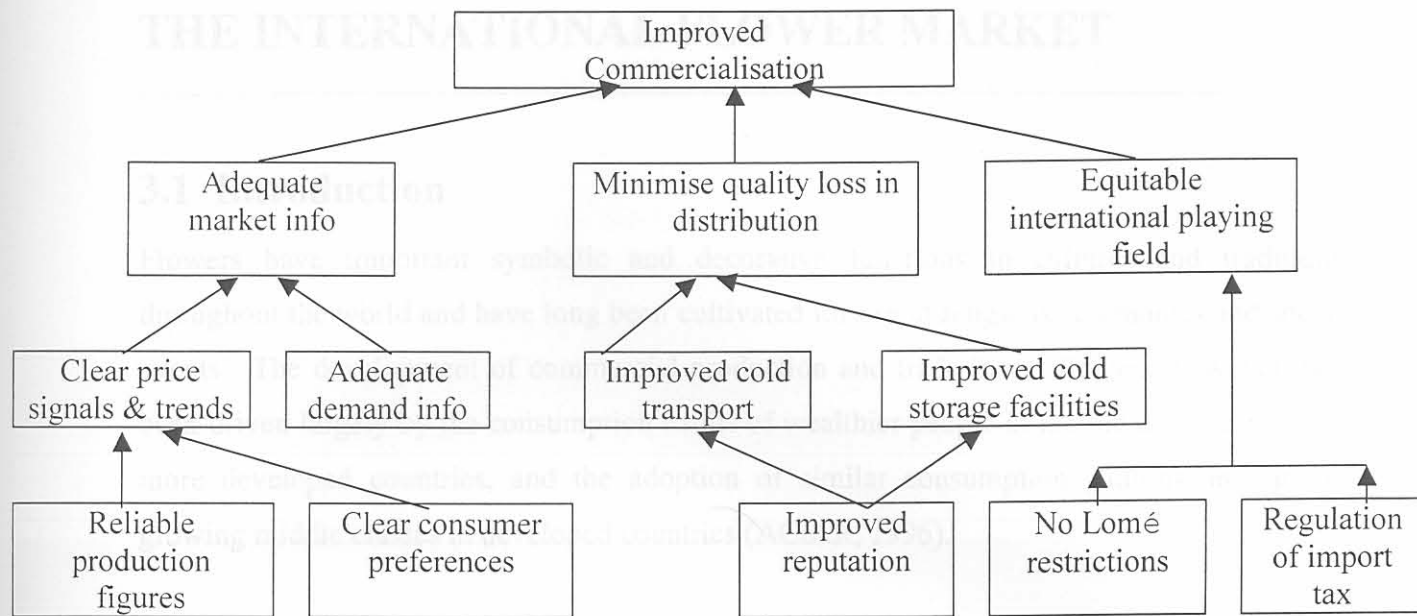
The "problem trees" above indicate that there are enormous gaps to be filled, most of which could lead to profitable private initiatives. These include gaps or weakly developed links in the information infrastructure and marketing channels.

*Objective Tree 1. - Commercial cut flower production*



*Objective Tree 1.1. - Improved production*



*Objective tree 1.2. - Improved commercialisation*

This chapter contains a four-part overview of the international environment in which the South African flower industry operates. First there is a short overview of the world flower industry. Second, there are profiles of countries such as Zimbabwe, Malawi, Zambia, Kenya and Uganda, which are regarded as South Africa's major competitors in the world flower market. The third part focuses on the Western European markets. The fourth part provides a profile of the Australian flower industry, which is regarded as South Africa's major competitor and as a potential market. The overview provides a context for the analysis in Chapter 5.

### 3.2 The world flower industry

World floricultural production is valued at more than \$16 billion at the farm gate and is estimated to cover more than 189 000 hectares (Wessels, 1998). The Netherlands and Japan dominate world flower production and not only account for nearly 50% of the production value, but also cover more than 20% of the production area. The most typical flowers produced are the traditional flowers such as roses, chrysanthemums, carnations, orchids, lilies, tulips and gypsophils (James, 1991). Floriculture is also an emerging, high value industry in sub-Saharan African economies such as Zimbabwe, Kenya and South Africa (Wessels, 1998). Flower production is becoming globalised and recent trends are out-of-season or low-cost factor advantages, such as in Southern Malawi (See 3.2.1) at the expense of established high-technology producer countries like the Netherlands.