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20269

Distr.
LIMITED

PPD.248 (SPEC.)
15 July 1993

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Original: ENGLISH

ECONOMIC DIVERSIFICATION AND EXPORT PROMOTION IN BOTSWANA

Implications for integrated human resources development planning

V.93-87348

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PREFACE

This paper is based on findings from a field mission to Botswana which took place during the period 26 October to 13 November 1992. UNIDO was invited to participate at its own cost in a joint ILO/UNESCO implementation of TSS-1 project "Programme Framework for Integrated Human Resources Development Planning in Botswana".[1] The terms of reference for the joint ILO, UNESCO and UNIDO mission included an assessment of compatibilities between national policies, strategies and programmes in the area of Human Resources Development (HRD) and those expected to generate employment in the industrial sector. The main objective was to introduce an integrated programme approach to HRD planning.

A shorter version of this paper was submitted to ILO as an input into a consolidated ILO/UNESCO/UNIDO report in November 1992. The report was completed in January 1993 and discussed with UNDP and a national reference group in a workshop which took place in Gaborone in April 1993. The final version of the consolidated report is expected in July 1993.

This present paper provides a summary of the macroeconomic situation, the past and present trends of industrial development, a review of existing supportive programmes as well as analysis of the key issues relevant to the context of an integrated HRD approach. The paper focuses mainly on the demand side of the HRD equation since the supply side was covered by ILO and UNESCO.

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[1] The mission was composed of the following members: Rashid Amjad (Mission leader, ILO Geneva), M.K.Kabundi (ILO Lusaka), S. Odera-Oteng (ILO Lusaka), John Ryan (UNESCO Paris), Pavla Jezkova (UNIDO Vienna), and Richard Clanton (UNIDO consultant). Doreen Nteta was hired by UNIDO as a local expert to provide input on women in development issues relevant to the mission's objective.

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ACRONYMS

AFA	Automatic Financial Assistance
ALDEP	Arable Lands Development Programme
ALSP	Accelerated Land Servicing Programme
BDC	Botswana Development Corporation
BLS	Botswana, Lesotho, Swaziland
BMC	Botswana Meat Commission
BOCCIM	Botswana Confederation of Commerce, Industry and Manpower
BTC	Botswana Technology Centre
CCA	Common Customs Area
CFA	Case-by-case Financial Assistance
CSO	Central Statistics Office
EER	Enterprise Establishment Register
EC	European Community
FAP	Financial Assistance Policy
FTRS	Food Technology Research Services
GEIS	General Export Incentive Scheme
GTZ	Deutsche Gesellschaft fuer Technische Zusammenarbeit
HRD	Human Resource Development
IFS	Integrated Field Services
ITC	International Trade Centre
MFDP	Ministry of Finance and Development Planning
MOE	Ministry of Education
MLHA	Ministry of Labour and Home Affairs
NDB	National Development Bank
NDP	National Development Plan
NORAD	Norwegian Agency for Development
RIDP	Regional Industrial Development Programme
RIIC	Rural Industries Innovation Centre
RIP	Rural Industries Promotion
SACU	Souther Africa Custom Union
SACUA	Souther Africa Custom Union Agreement
SADCC	Southern Africa Development Co-ordination Conference
SIDA	Swedish International Development Agency
SPRDP	Selebi-Phikwe Regional Development Programme
TIPA	Trade and Investment Promotion Agency
UICEF	United Nations Childrens' Educational Fund
UB	University of Botswana
WHO	World Health Organization

I. ECONOMIC AND INDUSTRIAL DEVELOPMENT CONTEXT

1.1 *Macroeconomic setting*

The most recent national accounts figures indicate that Botswana's GDP growth in constant 1985/86 prices reached 8.8% in 1990/91 compared to 5.7% in 1989/90. The highest increases were recorded in the service sector including government services, transport and trade. The lowest rate of growth in 1989/90 was in the agricultural sector. Although there was an improvement in real terms value added in the mining, manufacturing and agricultural sector,the GDP share of all three sectors declined, especially in the case of the mining sector which fell from 46.4% to 42.3%. General Government and trade and tourism were the second largest contributors to GDP with 18.4% and 13.9%. The contribution of agriculture with 5.2% and manufacturing with 4.3% was lower than 5.6% contribution of the construction sector.

External Trade Statistics from October 1992 indicate total trade at P7.7 billion in 1991, an increase of 10.2% from 1990. Imports grew by 8.7% and exports by 12%. Up to 1989 there was a marked shift in the composition of imports. After many years of being the leading commodity group, Food, Beverages and Tobacco dropped to a third and fifth place in 1988 and 1989 respectively. It has been surpassed by Machinery and Electrical Equipment, Vehicles and Transport Equipment, and Metals and Metal Products. The composition of exports does not show any signs of a major shift from the three primary commodities - diamonds, copper-nickel and beef, which together accounted for 90.3% of total exports in 1991. Diamond exports accounted for 78.6% of total exports, copper-nickel 7.9% and beef 3.8% in 1991. Fluctuation of world prices and domestic production is reflected in the uneven export growth rates of these commodities. Although export value of Other Goods, Textiles, Hides and Skins, and Soda Ash has increased steadily,their contribution to total exports is still relatively insignificant.

Botswana 's trade remains concentrated by major partners and regions. Around 80% of imports come from the Common Customs Area (CCA), almost exclusively from the Republic of South Africa (RSA). In 1989 5.7% of imports came from Zimbabwe, 7.3% from EC, 1.2% from USA and 4.8% from Europe and the rest of the world. In terms of export earnings, Switzerland is the single largest market, accounting for over 83 % of export receipts from the sale of diamonds. Norway is the second, receiving two thirds of the copper nickel matte. Only about 5% of exports in terms of value is destined for CCA and about 6% for Zimbabwe.

The balance of payments in 1991 yielded an overall surplus (capital and current account) of P764 million. This was an increase of P186 million from a previous year. The outstanding external debt of the Government was P816 million representing an estimated 12% of GDP in 1991. The debt service ratio was estimated at 3.1% which compares favourably with the 1991 average of 50% for all developing countries in Africa. The international reserves were estimated at P7.7 million at the end of 1991. The level of reserves is sufficient to cover 23 months of imports. The 5% devaluation of Pula in September 1991 was in response to falling currency values of Botswana's major regional trading partners which were affecting Botswana's competitiveness.

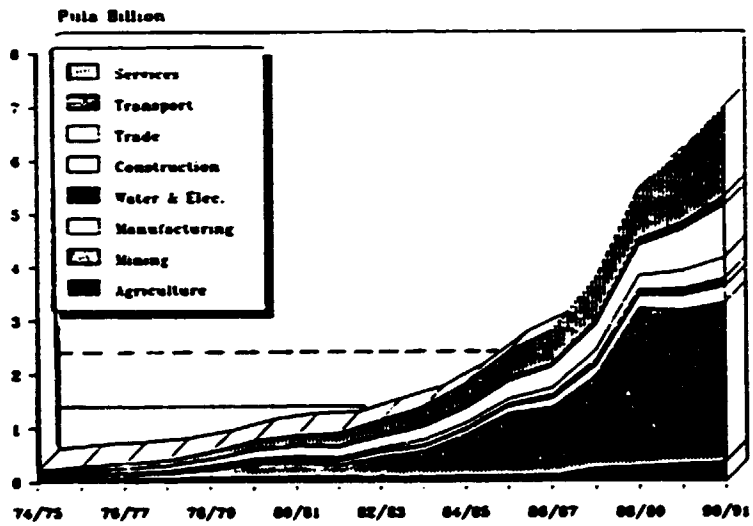
The situation in 1992 does not look that favourable. The rate of inflation has been rising. Only between June and October 1992 it was estimated by the Central statistical Office to have increased from 11% to 17%. The increase is mainly attributed to the introduction of sales tax on a wider range of commodities, an increase in the price of petrol and utility charges. The present depreciation of the value of diamonds, falling price of copper-nickel, problems with realization of production targets for the soda ash mine, and real prospects of a drought season, as well as the political and economic instability in Southern Africa region exposes the vulnerability of Botswana.

1.2 *The past and present trends of industrial development*

The growth of the industrial sector during the last decade has been commendable. The high growth rate was made possible by the re-investment of government revenues from the mining sector into the development of social and physical infrastructure, and providing various fiscal incentives and extension services to promote employment generating activities. Maybe even more important was the "pull" from a rapidly growing mining sector which created a powerful growth impetus for the manufacturing and service sectors.

The industrial sector (construction, manufacturing, commerce, financial and business services) grew on average 8.7% per annum in real terms between 1982 and 1991. Finance and business services recorded the highest growth (12.1%), followed by construction (10.3%), commerce (8.8%) and manufacturing (5.2%), see Chart 1.

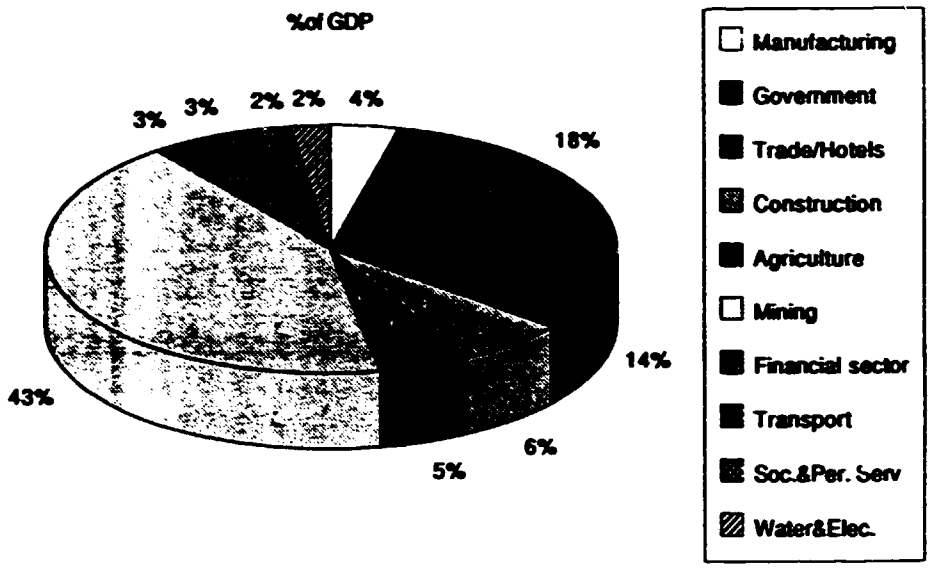
Chart 1 Gross Domestic Product by sector, 1974/75-1990/91



Source: SCO, September1992

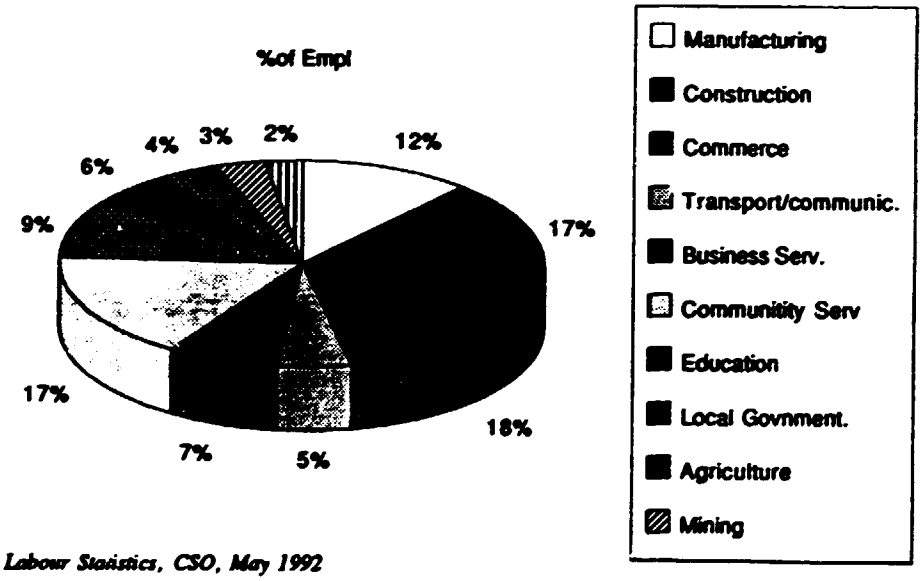
In terms of the contribution to GDP the ranking in 1990/91 was highest for commerce (14%) followed by construction (6%), manufacturing (4%) and finance (3%), see Chart 2. Employment in the industrial sector grew at an average annual rate of 11.7%, increasing from 43 100 in 1982 to 117 in 1991 and constituting about half of the formal sector employment in that year. Manufacturing recorded the highest employment growth (15.3% per annum), followed by finance and business services (12.3), construction (10.6%) and commerce (10.6%). In terms of the contribution to the total formal employment in 1991, the share of commerce was highest (18%) followed by construction (17%), manufacturing (12%) and business services (7%), see Chart 3.

Chart 2 Gross Domestic Product, 1990/91 (P6,995 million current prices)



Source: CSO, September 1992

Chart 3 Employment by economic activity, March 1991



Source: Labour Statistics, CSO, May 1992

It has been estimated that 51% of the manufacturing growth could be attributed to an expanding domestic market, 23% to the export opportunities provided mainly under the Lome Convention, and 26% to responsiveness to import substitution incentives. If the contribution of the Botswana Meat Commission (BMC) is excluded, the non-BMC manufacturing share for exports will be reduced to 8% and the shares for domestic market and import substitution will be increased to 54% and 38% respectively.

Manufacturing exports contributed about 7% to the total value of major exports in 1989, see Table 1. Meat production, destined primarily for EC markets, has still a dominant position in total manufacturing exports (49%) but it is now closely followed by textiles and garments which represented 31% of manufacturing exports and 2% of the major exports in 1989. Hides and skins with a 6% share in manufacturing export are in third place followed by prepared food (3%), footware and leather goods (3%), and soap and pharmaceutical (2% each). The major export markets for these products are the Economic Community (EC), the Common Custom Area (CCA) and Zimbabwe, see Table 1. USA is an important market for hides and skins.

Table 1 Major exports by destination in 1989

	CCA	Zimbabwe	Reunion	Rest of Africa	EC	Norway	Switzerland	Rest of Europe	USA	Asia & Far East	Rest of World	Total
					P'000							
Live Animals (Ch.1)	224	0	-	0	115	-	4	1	123	206	0	675
Meat (Ch.2)	30,638	79	40,356	270	55,788	197	-	-	-	-	0	127,329
Fats & Oils (Ch.15)	585	3,822	-	168	1	-	-	-	-	-	27	4,604
Prepared Food (Ch.16)	757	1,020	-	1,338	5,076	95	-	-	-	0	0	8,286
Food Residues (Ch.23)	3,039	1,849	-	24	-	-	-	-	-	-	2	4,914
Pharmac. Products (Ch.30)	809	4,866	-	399	3	-	-	-	0	-	1	6,079
Soap etc (Ch.34)	298	5,078	-	547	0	-	-	1	0	-	7	5,931
Hides & Skins (Ch.41)	5,169	5,715	-	-	1,418	-	0	11	3,456	33	-	15,803
Textiles etc (Sec.XI)	21,763	41,542	-	1,101	12,181	0	110	25	2,339	964	273	80,298
Footwear etc (Sec.XII)	6,000	731	11	466	1	-	-	15	376	-	2	7,601
Diamonds etc (Ch.71)	2,300	2	-	5	197	0	2,860,587	0	1	0	-	2,863,093
Copper-Nickel (Ch.75)	1,021	181,516	-	-	-	287,319	-	-	-	-	0	469,856
Total Major Exports	72,605	246,220	40,366	4,320	74,779	287,611	2,860,702	53	6,296	1,204	311	3,594,468
Other Exports	112,315	7,722	125	7,142	6,060	72	167	1,448	3,189	2,668	7,226	148,134
Total Exports	184,920	253,942	40,491	11,462	80,840	287,683	2,860,868	1,501	9,485	3,872	7,537	3,742,602
					Percentage of Total by Destination *							
Live Animals (Ch.1)	*33.2*	*0.0*	-	*0.0*	*17.0*	-	*0.7*	*0.1*	*18.3*	*30.6*	*0.1*	*0.0*
Meat (Ch.2)	*24.1*	*0.1*	*31.7*	*0.2*	*43.8*	*0.2*	-	-	-	-	*0.0*	*3.4*
Fats & Oils (Ch.15)	*12.7*	*83.0*	-	*3.7*	*0.0*	-	-	-	-	-	*0.6*	*0.1*
Prepared Food (Ch.16)	*9.1*	*12.3*	-	*16.1*	*61.3*	*1.1*	-	-	-	*0.0*	*0.0*	*0.2*
Food Residues (Ch.23)	*61.9*	*37.6*	-	*0.5*	-	-	-	-	-	-	*0.0*	*0.1*
Pharmac. Products (Ch.30)	*13.3*	*80.0*	-	*6.6*	*0.0*	-	-	-	*0.0*	-	*0.0*	*0.2*
Soap etc (Ch.34)	*5.0*	*85.6*	-	*9.2*	*0.0*	-	-	*0.0*	*0.0*	-	*0.1*	*0.2*
Hides & Skins (Ch.41)	*32.7*	*36.2*	-	-	*9.0*	-	*0.0*	*0.1*	*21.9*	*0.2*	-	*0.4*
Textiles etc (Sec.XI)	*27.1*	*51.7*	-	*1.4*	*15.2*	*0.0*	*0.1*	*0.0*	*2.9*	*1.2*	*0.3*	*2.1*
Footwear etc (Sec.XII)	*78.9*	*9.6*	*0.1*	*6.1*	*0.0*	-	-	*0.2*	*4.9*	-	*0.0*	*0.2*
Diamonds etc (Ch.71)	*0.1*	*0.0*	-	*0.0*	*0.0*	*0.0*	*99.9*	*0.0*	*0.0*	*0.0*	-	*76.5*
Copper-Nickel (Ch.75)	*0.2*	*38.6*	-	-	-	*61.2*	-	-	-	-	*0.0*	*12.6*
Total Major Exports	*2.0*	*6.8*	*1.1*	*0.1*	*2.1*	*8.0*	*79.6*	*0.0*	*0.2*	*0.0*	*0.0*	*96.0*
Other Exports	*75.8*	*5.2*	*0.1*	*4.8*	*4.1*	*0.0*	*0.1*	*1.0*	*2.2*	*1.8*	*4.9*	*4.0*
Total Exports	*4.9*	*6.8*	*1.1*	*0.3*	*2.2*	*7.7*	*76.4*	*0.0*	*0.3*	*0.1*	*0.2*	*100.0*
% Major Exports	*39.3*	*97.0*	*99.7*	*37.7*	*92.5*	*100.0*	*100.0*	*3.5*	*66.4*	*31.1*	*4.1*	*96.0*

** The last column is the percentage contribution of each commodity group to the total of exports*

[1] *A decrease in real terms by 14.4 percent is based on the Bank of Botswana's Import Price Index in Pula terms (Table 4.5,1991 Annual Report) and by 18.7 percent if the Cost-of-Living Imported Tradeable Index is used. The 11 percent decrease is based on the UN Index of Export Unit Values of Manufactures of Developed Economies (Special TableE, UN Monthly Bulletin of Statistics).*

Source: External Trade Statistics, October 1992

Diversification of the manufacturing sector away from the heavy dependence on meat and meat products which constitutes the major proportion of food products branch started already in the late 1970s, see Table 2 and 3. In terms of its shares in total manufacturing employment, value added, and output, food processing contributed around 20%, by the end of 1990s, less than half of its 1975 share, see Table I in Annex A. It is still the leading branch in terms of employment and output, but has been surpassed by beverages in terms of value added (28%). The share of other manufacturing products including building materials and handicrafts has become the third largest contributor to MVA (16%) and the second largest contributor to manufacturing output (18%) after food processing. Beverages were in third place in 1990.

Table 2 **Employees by manufacturing branch, 1975-1990**
(Number of employees)

Year	Food 311	Beverages 313	Textiles 321	Leather 323	Wood prod 331	Paper 341	Ind chem 351	Metal prod 381	Misc. 390	Total mfg
1975	1 862	230	681	147	145	15	20	276	474	3 850
1976	2 109	240	728	158	151	20	25	299	545	4 275
1977	1 798	251	777	170	157	18	28	325	626	4 150
1978	1 889	263	830	182	164	16	30	353	720	4 447
1979	2 231	284	957	160	301	98	32	502	911	5 476
1980	2 143	288	698	353	255	109	31	577	1 106	5 560
1981	2 436	262	1 075	269	368	134	149	453	1 272	6 418
1982	2 201	398	1 572	162	138	154	111	1 129	1 289	7 154
1983	2 510	401	1 678	215	321	500	426	1 812	1 935	9 798
1984	2 902	495	1 865	103	278	323	397	1 933	1 234	9 530
1985	3 062	439	1 549	303	389	521	301	1 999	1 377	9 940
1986	3 465	614	1 400	458	848	322	438	2 481	2 178	12 204
1987	3 126	821	2 478	508	1 023	775	398	2 570	3 110	14 809
1988	3 456	926	2 994	699	1 060	841	623	2 724	3 215	16 538
1989	3 797	1 095	3 507	680	1 343	1 100	706	2 777	3 109	18 114
1990	4 012	1 146	3 700	717	1 420	1 170	765	2 961	3 215	19 106

Source: UNIDO/REG Data Base

Table 3 **Manufacturing Value Added by manufacturing branch, 1975-1990**
(Constant 1980 US $ million)

Year	Food 311	Beverages 313	Textiles 321	Leather 323	Wood pro 331	Paper 341	Ind chem 351	Metal pro 381	Misc. 390	Total mfg 3
1975	16.71	10.94	4.49	0.90	0.77	0.31	1.21	1.36	3.23	39.93
1976	17.13	11.29	6.22	1.02	0.80	0.44	1.43	1.43	5.64	45.39
1977	20.23	12.76	6.45	0.99	0.80	0.41	1.02	1.26	5.30	49.22
1978	15.51	9.28	6.78	0.99	0.82	0.46	1.02	1.08	6.59	42.54
1979	24.03	14.98	8.87	1.21	1.54	0.57	0.72	0.68	17.36	69.97
1980	13.39	4.12	5.79	0.90	0.64	0.77	0.77	-0.39	10.43	36.43
1981	16.60	11.17	6.27	1.78	0.80	1.02	0.89	1.22	16.44	56.18
1982	26.25	16.36	7.45	0.15	0.59	0.70	1.69	2.45	19.50	75.13
1983	25.41	13.85	8.91	0.45	0.82	1.91	0.46	3.99	19.15	74.95
1984	25.37	14.69	4.58	0.15	0.93	2.21	2.56	9.71	12.51	72.71
1985	21.55	15.82	4.61	0.06	1.44	3.36	3.55	10.31	11.67	72.38
1986	34.71	18.38	7.85	0.13	1.85	2.86	4.69	10.48	14.35	95.30
1987	49.92	24.06	8.84	0.49	2.11	3.86	6.81	10.54	12.15	118.78
1988	36.75	30.04	7.52	0.42	3.91	4.17	10.64	14.35	18.48	126.30
1989	31.41	36.41	7.30	0.58	5.82	5.44	14.29	19.64	22.49	143.38
1990	24.22	39.86	7.61	0.58	6.80	5.78	16.50	20.85	22.73	144.93

Source: UNIDO/REG Data Base

Output of chemical and plastic products recorded the fasted average annual rate of growth (38%) between 1980-1990, followed by wood and furniture (25%), paper and printing (23%) and metal products (20%), see Table IIa in Annex A. Looking at the growth between 1985 and 1990, leather and footwear, as well as textiles and garments were amongst the top six branches with an average annual rate of growth in output above 20%, see Table IIb in Annex A. Chemicals and plastics, as well as wood and furniture had the highest average annual growth of MVA between 1980 and 1990, 36% and 27% respectively. See Table IIIa in Annex A. Leather products recorded the fasted growth of MVA between 1985 and 1990, see Table IIIb in Annex A.

Table 4a and 4b show the distribution of licences by industrial branch and geographical location issued between 1985 and 1990. The large number of licences issued for manufacturing of metal products, textiles (including garments), food processing and building materials (included in ISIC 390) is to a large extent related to an industrial reservation policy. Under this policy industries which require relatively low level of technology and capital are reserved for citizens. These include sewing of school uniforms, manufacture of school furniture, burglar bars, protective clothing, cement and baked bricks, sorghum milling and bread baking.

Table 4a **Licences issued to establishments in the formal manufacturing sector, 1985-1990**

	1985	1986	1987	1988	1989	1990	Total	Expected employment
Meat & meat products	1	2			1	1	5	2,152
Dairy and agro-based products	10	15	16	17	14	3	75	2,996
Beverages		2	2	2	2		8	976
Textiles	4	13	22	24	6	7	76	6,392
Tanning & leather products		3	1	2	1	2	9	538
Chemical & rubber products	4	3	11	13	10	5	46	2,204
Wood & wooden prod.	4	4	7	6	4	6	31	1,522
Paper & paper prod.	3	6	1	5	3	3	21	986
Metal products	7	20	17	15	17	13	89	3,656
Building materials	4	10	7	14	12	11	58	2,875
Plastic products	4	6	5	7	4	6	32	1,476
Electrical products	2	5	4	4	3	4	22	786
Handicrafts	1	1			1		3	234
TOTAL	44	90	93	109	78	61	475	26,793

Table 4b **Geographic distribution of manufacturing issued licences, 1985-1990**

Subsector	Gaborone	Lobatse	Selebi-Phikwe	Francis-town	Others	Total
Meat & meat products	-	1	2	1	1	5
Diary & agro-based products	19	7	8	7	34	75
Beverages	1	-	4	1	2	8
Textiles	31	9	3	14	19	76
Tanning & leather products	2	-	-	3	4	9
Chemical & rubber prod.	20	1	4	7	14	46
Wood & wooden products	7	-	3	7	14	31
Paper & paper products	9	3	1	4	4	21
Metal products	22	1	10	11	45	89
Building materials	15	8	-	5	30	58
Plastic products	12	2	2	9	7	32
Electrical products	12	-	1	4	5	22
Handicrafts	-	-	1	2	-	3
TOTAL	150	32	39	75	179	475

Source: Ministry of Commerce & Industry

Source: Ministry of Commerce & Industry

Table 5. Summary of establis' . .ts on EER in September 1992 and estimated employment in each sector in March 1992

ISIC	ISIC DESCRIPTION	No Empl	1-4	5-29	30-49	50-99	100+	Props Only	Not Known	Total Comps	EMPLOYMENT			
											Male	Female	Total	% Female
0	Soc.Serv.(non-profit)	111	37	88	14	9	10	4	89	362	1 608	2 120	3 728	56.87
1	Agriculture	30	83	138	24	12	7		353	647	4 281	1 812	6 093	29.74
2	Mining & Quarrying	2	2	9	4	4	11		37	69	7 272	352	7 624	4.62
3	Manufacturing	38	103	267	58	46	44	2	1 038	1 596	16 053	9 463	25 516	37.09
4	Water & Electricity	5	1	8	1	3	8	3	72	101	2 336	283	2 619	10.81
5	Construction	56	70	185	55	44	67	3	1 581	2 061	28 933	4 840	33 773	14.33
6	Commerce & Tourism	300	2 080	1 205	114	42	25	254	3 940	7 960	18 445	22 460	40 905	54.91
7	Transport & Comm.	79	162	107	14	6	6	20	1 096	1 490	7 480	2 699	10 179	26.52
8	Finance,Ins.& Business	350	251	248	27	27	31	16	2 584	3 534	12 098	6 787	18 885	35.94
9	Soc.Serv.(profit)	45	148	248	41	31	51	5	858	1 427	4 692	2 566	7 258	35.35
	TOTALS	1 016	2 937	2 503	352	224	260	307	11 648	19 247	103 198	53 382	156 580	34.09
3	MANUFACTURING													
301	Meat & Meat products	1		5		1	4		6	17	1 969	266	2 235	11.90
302	Dairy & Agro-based prod.	1	8	19	6	1	4		78	117	1 251	833	2 084	39.97
303	Beverages			1	1		5		8	15	981	232	1 213	19.13
304	Bakery products	5	7	12	6	4	2	1	29	66	635	449	1 084	41.42
305	Textiles & Garments	5	29	49	13	10	8		137	251	1 166	3 280	4 446	73.77
306	Tanning & Leather prod.	2	3	12	1		3		32	53	356	381	737	51.70
307	Chemical & Rubber prod.	1	5	16	6	4	1		62	95	642	392	1 034	37.91
308	Wood & Wooden prod.	1	5	19	3	4	3		71	106	1 267	469	1 736	27.02
309	Paper & Paper prod.	3	6	23	7	3	1		94	137	741	913	1 654	55.20
310	Metal products	8	12	52	9	7	6		165	259	3 312	835	4 147	20.14
311	Other manufact.prod.	11	28	59	6	12	7	1	356	480	3 733	1 413	5 146	27.46
	TOTALS	38	103	267	58	46	44	2	1 038	1 596	16 053	9 463	25 516	
	Per centage	6.81	18.46	47.85	10.39	8.24	7.89	0.36			62.91	37.09		

Source: Central Statistics Office

Establishments classified as "struck off" or "dormant" excluded from the above figures

The rise of textile and garment production can be also attributed to several factors. A number of 'Rhodesian' firms started to relocate to Botswana already in the late 1970s. Local and regional investors have taken advantage of the Financial Assistance Policy (FAP) and Botswana's liberal foreign exchange policy. Some international firms, such as Lonrho and foreign firms from South East Asia have aiso made use of Botswana's unfilled export quota to the USA and EC and benefits offered to foreign investors under the Selebi-Phikwe regional programme. An additional factor enhancing the growth of textiles and garments was the involvement of the Government Supply Department giving a preferential treatment to small, predominantly women run businesses, in purchasing uniforms. An important component of this preference scheme was a bulk material purchasing by the government which under the SACU agreement is allowed to import at c.i.f. prices without paying import duties. There is a high predominance of female labour force in textiles and garments. Women constitute 74% of total employment in textiles. In terms of total female employment in manufacturing this represents about 35%, see Table 5.

An examination of the size of manufacturing firms reveals the predominance of small and medium size enterprises. According to the Enterprise Establishment Register (EER) in September 1992 and the employment estimates from March 1992, 19% of the total number of registered manufacturing firms (excluding those where employment was not known) were enterprises with 0-4 employees, 48% were in the category of 5-29 employees, 10% with 30-50 employees and 8% with 50-99 employees. Only 44 firms (8%) of the employment reporting 558 firms had 100 or more employees, see Table 5. Many of the registered firms where employment was not known would most probably come under the category of small scale enterprises, judging by the industrial branches where employment informations are missing. The Botswana Meat Commission (BMC) is the single largest provider of manufacturing employment. In 1991 the BMC employed 1 981 people, accounting for almost 8% of the total formal employment in the manufacturing sector.

The exact number of micro and small enterprises is not known. This is partly due to the fact that locally owned enterprises employing less than 10 employees and/or using less than 20 kw of any form of energy are not requested to register. Registration is required only when applying for an industrial license which is the prerequisite for seeking FAP. Preliminary results from a recent survey on Micro and Small Scale Enterprises, including the informal sector, reveal that between 53 000 - 88 000 people (almost 20% of the total labour force) are engaged in this sector. 75% of the estimated 30 000 - 48 000 enterprises, of which 69% are located in rural areas, are owned by women. About 41% of the activities could be classified as manufacturing. The growth rate of employment in this sector, estimated at 7.8%, has been mainly due the increasing number of new entrants rather than the growth of individual enterprises. Although women run enterprises on the whole recorded a lower growth rate (6.7%) than male run enterprises (10%), the growth of female individual enterprises was much higher than that of male individual enterprises, 47.6% compared to 37.5%.

There are only two true multinational firms engaged in manufacturing, Lonrho and Colgate-Palmolive. Large businesses are almost exclusively owned by foreigners or jointly with the Botswana Development Corporation (BDC), see Table 6. The major share of direct private foreign investment comes from firms based in the Republic of South Africa and Zimbabwe. The predominance of local ownership in the small and medium size category is largely attributed to the industrial reservation policy.

Table 6 Profile of the formal manufacturing sector, 1985-1991

Product Group	Citizen owned	Projected employment	Joint ventures	Projected employment	Foreign owned	Projected employment
Meat and meat products	4	218	0	0	2	85
Dairy & agro-based products	42	1,046	27	845	37	1,552
Beverages	0	0	5	591	3	216
Textiles	19	602	32	885	44	2,436
Tanning and leather products	2	218	3	100	5	440
Chemical and rubber products	4	139	23	721	33	1,134
Wood and wooden products	12	647	9	238	17	508
Paper & paper products	9	222	6	63	13	323
Metal products	43	1,151	21	801	40	1,482
Building materials	50	2,358	14	576	15	850
Plastic products	6	178	16	933	8	480
Electrical products	6	282	9	512	11	1,096
Handicrafts	1	234	3	28	3	1,047
TOTAL	198	7,295	168	6,293	231	11,649

Source: Department of Industrial Affairs, Ministry of Commerce and Industry

A low productivity has been a topical issue for some time. If gross output per employee is the measure of productivity, available statistics reveals that for the manufacturing sector as a whole productivity has been declining, see Table 7 and Chart 4a and 4b. The largest proportionate decline during the 1980s occurred in the leather and leather products, food processing and textiles. The low productivity of these branches could be attributed to a combination of the following factors: labour intensive technology, high percentage of female labour force, small average size of enterprises, and to some extent the ownership. It is interesting to note that all these branches have also the lowest average wages and gross profits, see Table IV in Annex A. Manufacturing branches with a relatively advanced technology such as beverages, chemical and rubber products, and printing and publishing score much better on all accounts.

There is a lack of factual information on how Botswana's productivity of individual manufacturing branches compares with compatible examples from the region and internationally. Some comparisons have been made for the textile/garment industry which showed Botswana's productivity much lower than that in RSA and South East Asia. Since export promotion is one of the major objectives for industrial development, the question of productivity warrens closer examination.

Table 7 Gross output per employee by manufacturing branch, 1975-1990 (Constant 1980 US$ '000)

Year	Food 311	Beverages 313	Textiles 321	Leather 323	Wood prod 331	Paper 341	Chemicals 351	Metal prod 381	Misc. 390	Average Average
1975	47.22	89.52	27.17	29.66	26.97	113.33	190.50	20.51	27.89	41.48
1976	39.58	95.21	25.80	27.47	24.44	97.00	140.80	20.27	30.90	37.75
1977	54.82	89.80	34.14	24.71	23.89	115.00	98.21	18.46	25.29	43.91
1978	54.80	82.81	19.92	23.88	23.54	138.13	163.60	17.82	30.15	41.23
1979	52.65	106.97	27.86	31.88	13.95	23.27	69.69	16.69	33.06	41.42
1980	34.36	68.37	26.38	8.39	10.59	27.16	74.84	10.71	21.76	27.50
1981	37.74	99.24	18.15	22.12	7.20	16.49	28.74	9.69	29.17	30.95
1982	45.16	77.56	15.98	22.35	11.45	18.25	55.68	5.11	37.94	31.35
1983	46.91	79.85	18.18	17.86	9.38	10.86	28.63	5.24	23.95	26.25
1984	32.28	71.27	15.26	13.59	16.91	19.66	25.97	6.08	31.61	24.24
1985	31.39	123.92	13.31	2.81	13.47	20.06	48.96	6.96	32.29	25.99
1986	32.91	93.81	16.84	2.53	8.24	25.37	36.60	7.64	25.92	24.73
1987	40.18	65.53	16.28	7.86	8.89	10.83	61.36	8.18	19.65	23.48
1988	35.56	67.73	19.99	3.99	13.67	26.90	81.32	12.04	25.34	27.23
1989	21.54	61.36	11.46	5.70	18.92	23.39	75.34	10.68	19.17	20.59
1990	17.09	63.76	13.38	6.03	17.46	15.69	57.1	8.79	18.39	18.96

Chart 4a Gross output per employee by manufacturing branch, 1975-1990

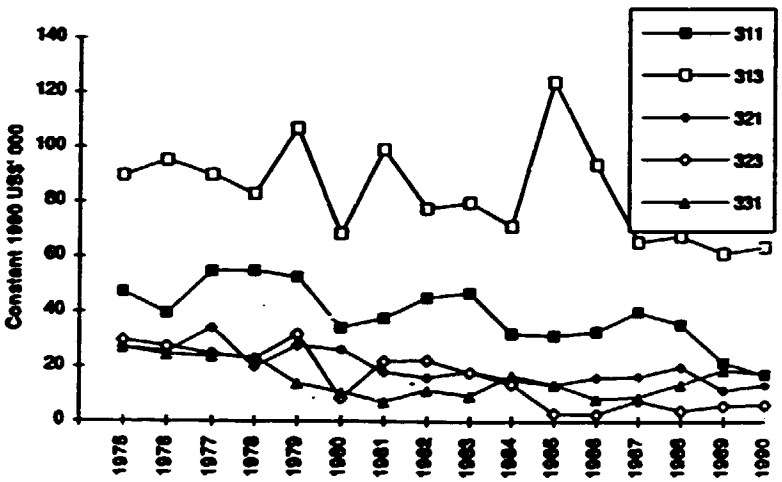
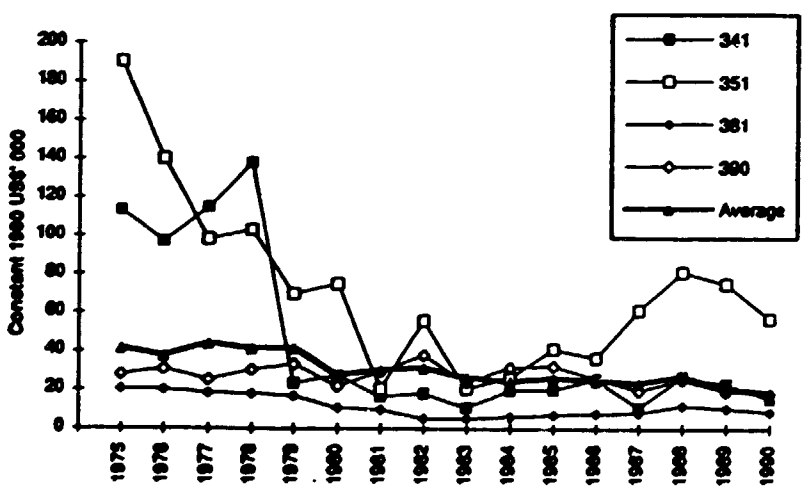


Chart 4b Gross output per employee by manufacturing branch, 1975-1990

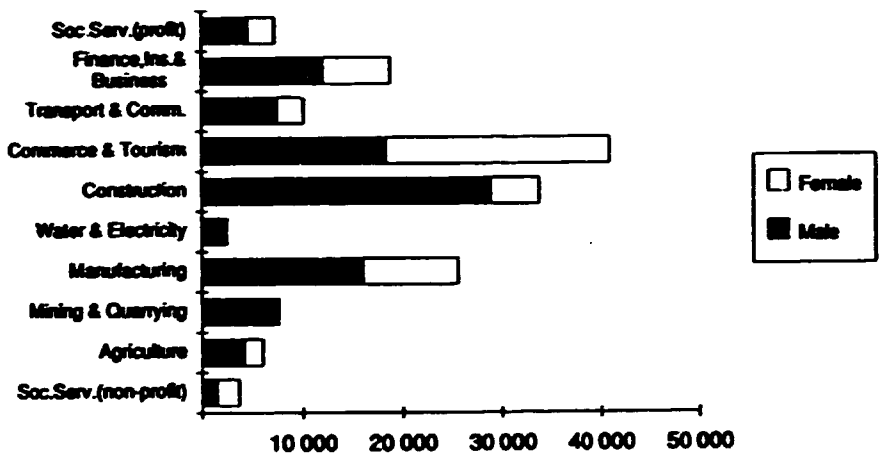


Source: UNIDO/REG Data Base

A conscious effort by the Government of Botswana to encourage employment by offering labour grants for five years under the FAP has lead to a high employment growth in the formal private sector. In 1991 the private sector accounted for 64% of the total employment. The annual average growth rate of manufacturing employment was almost 16% between 1980 and 1990. The fastest growth of employment was registered in the chemical and plastic products branch, paper, printing and publishing, wood and wood products, and textiles, see Table Va in Annex A. Employment growth in leather and leather products occurred in the second half of the 1980s, see Table Vb in Annex A.

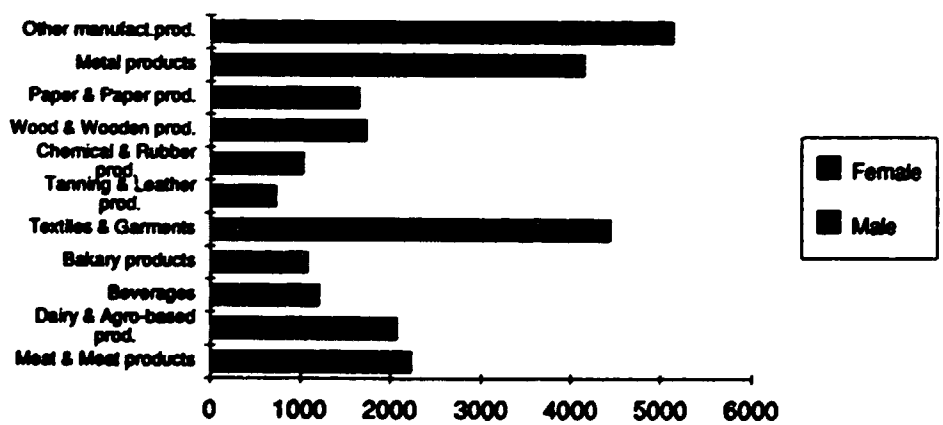
Manufacturing is third largest employer of male and female labour in the private sector, see Chart 5. For female employment, commerce and services are more important. For male employment, construction and commerce precede manufacturing. Women constituted 37% of total manufacturing employment in 1992, see Table 5. High participation rates for women apart from textiles, are in paper, printing and publishing (55%), tanning and leather products (52%), and food processing (40%), see Chart 6. Women are also relatively well represented in chemical and plastic production (38%), wood and wooden products (27%), other manufacturing activities including building materials and handicrafts (27%), and metal products branch (20%). Women's share in food processing was less than 12% in 1992. This may be due to the technology and heavy manual tasks required by the BMC abattoir.

Chart 5 **Male and female employment by sector, 1992**



Source: Table 5.

Chart 6 **Male and female manufacturing employment, 1992**



Source: Table 5.

There is no recent detailed information on the labour market. The latest comprehensive data available come from a Survey of Training Needs and Conditions of Work, February 1984. At that time it was reported that almost 34% of the surveyed citizen employees had no schooling and no training. A further 43% had some schooling but no training, and 2.5% had some training and no schooling, see Chart 7. Only 20% of employees had both academic and vocational training. Interestingly enough, it was in this group where employers identified the largest proportion needing further training, see Chart 8. Proportionately, more women required training than men, see Chart 9. A disaggregation at occupational group level showed that in clerical, professional/technical and administrative/managerial categories the highest proportion of employees (between 50-60%) required training. However, the largest absolute number of employees requiring training were production and trades workers, see Table 8. In terms of subjects of training required, a large proportion of total surveyed employees (15%) was stated as requiring basic literacy training. Other major subjects included business, administration and commerce, and trades, mainly mechanical.

Chart 7 Citizen employee by level of skills, February 1984
(Distribution excludes "not stated")

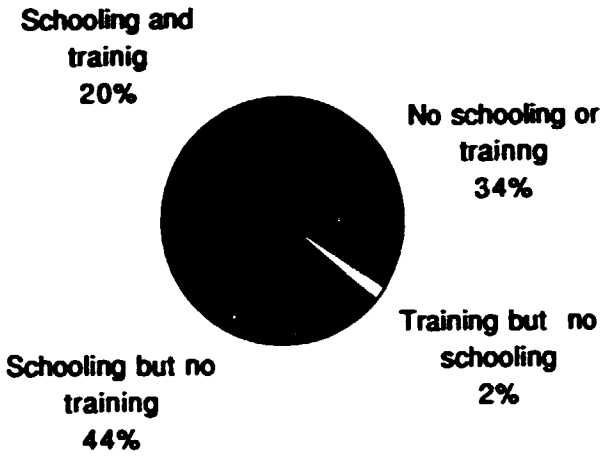
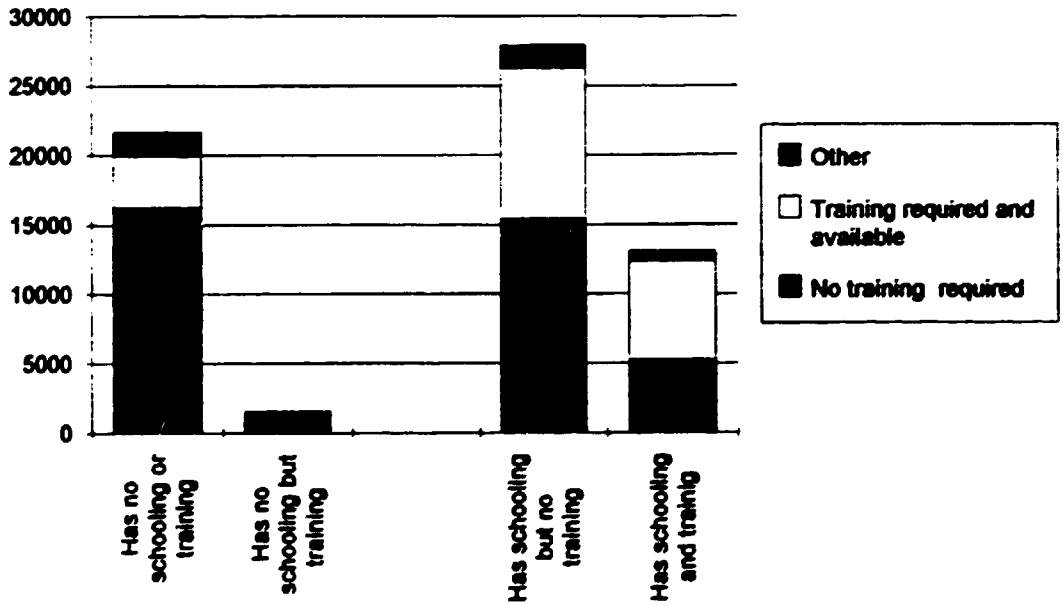


Chart 8 Training required by education/training background of employees, 1984



Source: Survey of Training Needs and Conditions of Work, February 1984, CSO 1985

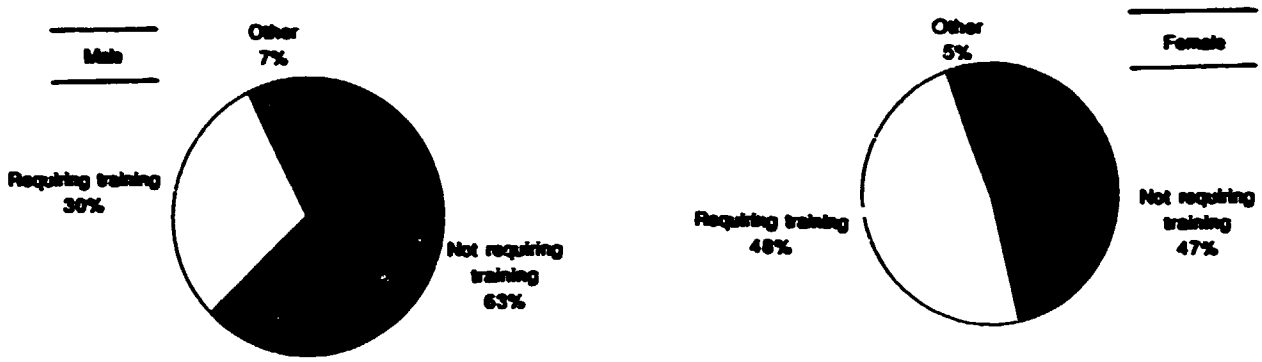
Table 8 **Further dissection of occupation major group 7/8/9 (other) for citizen employees, non-citizen employees, unfilled vacancies and citizens requiring training, February 1984**

Occupation at minor group level	Paid employees a/			Unfilled vacancies	Citizen employers requiring training and available a/
	Citizens	Non-citizens	Total		
Production supervisor foremen	2,097	165	2,262	66	913
Miners, etc.	1,264	203	1,472	117	138
Metal processors	69		69	-	-
Wood preparation workers, etc.	409	-	409	-	409
Chemical processors, etc.	120	-	120	-	10
Spinners, weavers, dyers, etc.	877	-	877	-	379
Tanners, etc.	223	8	231	-	85
Food and beverage processors	916	-	916	1	168
Tobacco preparers/makers	18	-	18	-	18
Tailors, sewers, etc.	622	16	638	112	195
Shoemakers, leather goods makers	129	-	129	-	38
Cabinet makers, etc.	44	-	44	13	44
Stone cutters and carvers	136	10	146	-	-
Blacksmiths, machine tool operators	205	-	205	11	94
Machinery fitters, etc.	1,128	91	1,219	87	804
Electrical fitters, etc.	1,119	138	1,257	34	302
Broadcasting station operators, etc.	-	-	-	-	-
Plumbers, welders, etc.	1,407	81	1,488	325	696
Jewellery, etc. workers	439	-	439	-	262
Glass formers, potters, etc.	345	-	345	-	16
Rubber/plastics product makers	152	10	162	-	-
Paper product makers	136	-	136	-	136
Printers, etc.	182	-	182	3	115
Painters	723	31	754	19	322
Production workers n.e.c.	24	37	61	-	24
Bricklayers, carpenters, etc	3,801	70	3,871	70	2,000
Stationary engine operators, etc.	1,753	44	1,797	1	344
Freight handlers, etc.	988	20	1,008	-	192
Transport equipment operators	2,886	13	2,899	43	453
Labourers n.e.c.	17,583	142	17,725	314	3,066
TOTAL major group 7/8/9	39,796	1,085	40,881	1,217	11,224

Source: Survey of Training Needs and Conditions of Work, February 1984, CSO.

a/ Major group 7/8/9 only. Excludes other occupational groups and those in Central Government, small retailers and selected other small business units.

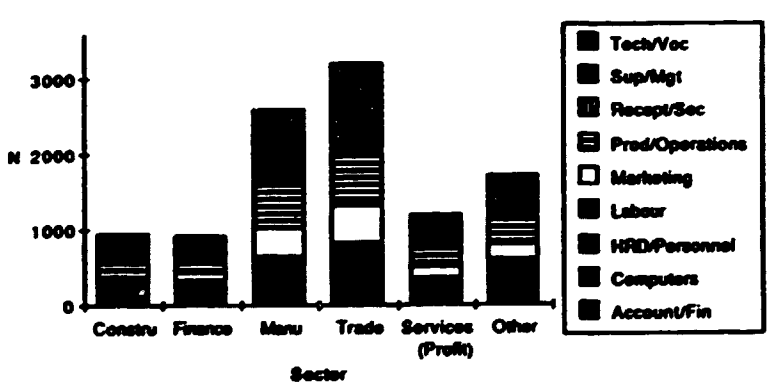
Chart 9 Citizen employees requiring training (male & female), 1984



Source: Survey of Training Needs and Conditions of Work, February 1984, CSO 1985

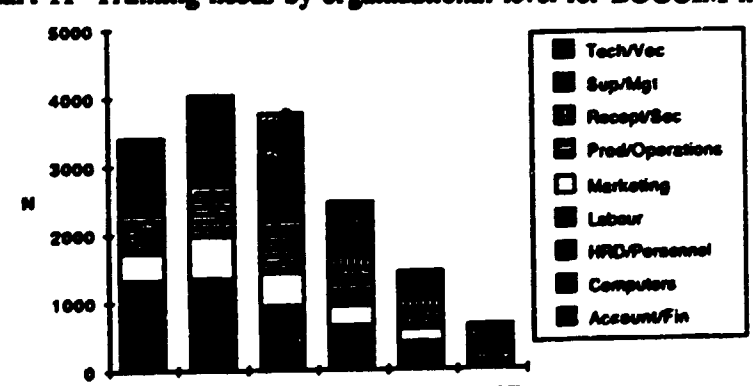
In a 1991 BOCCIM National Private Sector Training Survey on training needs for management and workers it was found that training needs varied across organizational levels, whereas variation in the composition of training needs across industries was minimal, see Charts 10 and 11. Supervision/management, production/operations, marketing and accounting/finance have been identified as the most important areas of concern across all industries with trade and manufacturing sectors having the largest need for training. Surprisingly, technical/vocational area of training was one of the least concerns, see Table 9. This is in spite of the relatively high level of expatriate employees in the categories of professional and technical occupations as well as the five year projected need for trades and machine operating skills, see Chart 13. Technical rather than vocational training was of a higher priority for all sizes of surveyed establishments except for firms with 100 or more employees. The highest projected manpower need of BOCCIM's members in the next five years is in the category of craft and related trades workers. Out of the total 6 860, 1 100 are expected to be trained within the firms. A group of building and construction related skills is the most numerous, see Table 10.

Chart 10 Training needs by industry for BOCCIM member firms, 1991



Source: 1991 BOCCIM National Private Sector Training Survey.

Chart 11 Training needs by organizational level for BOCCIM member firms, 1991



* N refers to the total number of projected training needs by organizational level.

Table 9 Round Four Summary: Training needs (training area by industry), 1991

Training Area (Individual Courses)	Construction N	Construction %	Finance N	Finance %	Manufacturing N	Manufacturing %	Trade N	Trade %	Service (Profit, N	Service (Profit, %	Other N	Other %	Total N	Total %
Accounting/Finance Area														
Accounting, Advanced	4	12%	9	20%	16	19%	21	16%	8	14%	17	25%	75	18%
Accounting, Intermediate	4	12%	10	22%	8	9%	15	12%	7	13%	11	16%	55	13%
Accounting, Basic	2	6%	7	16%	10	12%	24	18%	6	11%	11	16%	60	14%
Bookkeeping	8	24%	4	9%	20	23%	33	25%	8	14%	7	10%	80	19%
Capital Acquisition	3	9%	1	2%	6	7%	2	2%	3	5%	2	3%	17	4%
Financial Management, Advanced	4	12%	3	7%	6	7%	8	6%	5	9%	4	6%	30	7%
Financial Management, Intermediate	2	6%	1	2%	5	6%	3	2%	6	11%	4	6%	21	5%
Financial Management, Basic	2	6%	2	4%	9	10%	11	8%	4	7%	7	10%	35	8%
Risk Management and Insurance	3	9%	5	11%	3	3%	8	6%	5	9%	2	3%	26	6%
Tax Planning	2	6%	3	7%	3	3%	5	4%	4	7%	3	4%	20	5%
Total Accounting/Finance Area	34	15%	45	16%	86	13%	130	17%	56	17%	68	20%	419	16%
Computers Area														
Computer Software	9	100%	10	100%	18	100%	15	100%	13	100%	16	100%	81	100%
Total Computers Area	9	4%	10	4%	18	3%	15	2%	13	4%	16	5%	81	3%
HRD/Personnel Area														
Career and Retirement Planning	1	8%	3	14%	6	19%	7	15%	3	12%	2	11%	22	14%
Compensation and Benefits	1	8%	2	9%	8	25%	4	9%	5	20%	4	22%	24	15%
Human Resources Management	4	31%	8	36%	9	28%	12	26%	3	12%	5	28%	41	26%
Selection and Employment Termination	4	31%	5	23%	7	22%	14	30%	10	40%	4	22%	44	28%
Personnel Succession Planning	3	23%	4	18%	2	6%	10	21%	4	16%	3	17%	26	17%
Total HRD/Personnel Area	13	6%	22	8%	32	5%	47	6%	25	7%	18	5%	157	6%
Labour Relations Area														
Labour Laws	3	50%	3	75%	22	52%	28	64%	9	82%	7	54%	72	60%
Labour/Industrial Relations	3	50%	1	25%	20	48%	16	36%	2	18%	6	46%	48	40%
Total Labour Relations Area	6	3%	4	1%	42	6%	44	6%	11	3%	13	4%	120	5%
Marketing/Sales Area														
Customer Relations	9	45%	10	26%	42	38%	56	40%	21	48%	18	42%	156	40%
Marketing	2	10%	14	37%	32	29%	33	24%	9	20%	12	28%	102	26%
Public Relations	5	25%	11	29%	16	15%	28	20%	7	16%	7	16%	74	19%
Sales Management	4	20%	3	8%	20	18%	22	16%	7	16%	6	14%	62	16%
Total Marketing/Sales Area	20	9%	38	14%	110	16%	139	18%	44	13%	43	13%	394	15%
Production/Operations Area														
Equipment Management	5	9%	3	7%	7	4%	9	5%	6	9%	6	9%	36	6%
Facilities Management	3	6%	3	7%	1	1%	2	1%	3	4%	0	0%	12	2%
Methods Improvement	2	4%	6	14%	8	5%	13	7%	4	6%	6	9%	39	7%
Operations/Production Management	2	4%	4	9%	17	11%	10	5%	5	7%	0	0%	38	7%
Productivity Improvement	16	30%	9	21%	45	29%	48	26%	19	28%	13	20%	150	26%
Purchasing and Stock Control	5	9%	5	12%	18	11%	46	25%	8	12%	9	14%	91	16%
Quality Control	6	11%	2	5%	37	24%	12	7%	5	7%	10	16%	72	13%
Record Keeping	8	15%	4	9%	13	8%	27	15%	12	17%	11	17%	75	13%
Technology Resources Management	4	8%	4	9%	3	2%	2	1%	2	3%	2	3%	19	3%
Warehouse Management	2	4%	3	7%	8	5%	14	8%	3	4%	7	11%	37	7%
Total Production/Operations Area	53	23%	43	16%	157	23%	183	23%	69	21%	64	19%	569	22%
Receptionist/Secretary Area														
Receptionist Training	4	44%	4	50%	10	48%	15	71%	10	63%	8	67%	51	59%
Secretary Training	5	56%	4	50%	11	52%	6	29%	6	38%	4	33%	36	41%
Total Receptionist/Secretary Area	9	4%	8	3%	21	3%	21	3%	16	5%	12	4%	87	3%
Supervision/Management Area														
Business Organization Structuring	1	2%	7	8%	4	2%	14	8%	6	8%	3	3%	35	5%
Coaching Skills	8	14%	11	13%	19	12%	2	1%	8	10%	14	15%	62	10%
Communication Skills	9	16%	14	16%	43	26%	7	4%	18	23%	19	21%	110	17%
Delegation Skills	5	9%	7	8%	12	7%	14	8%	4	5%	11	12%	53	8%
Leadership Skills	7	12%	9	10%	17	10%	21	12%	6	8%	8	9%	68	10%
Operational Planning	4	7%	5	6%	5	3%	5	3%	6	8%	7	8%	32	5%
Problem Solving	6	10%	7	8%	16	10%	28	16%	8	10%	6	7%	71	11%
Profitability Improvement	4	7%	6	7%	12	7%	28	16%	4	5%	5	5%	59	9%
Strategic Planning	2	3%	1	1%	7	4%	10	6%	3	4%	5	5%	28	4%
Team Management	8	14%	6	7%	14	8%	18	11%	6	8%	7	8%	59	9%
Time Management	4	7%	13	15%	16	10%	24	14%	8	10%	7	8%	72	11%
Total Supervision/Management Area	58	26%	86	32%	165	24%	171	22%	77	23%	92	27%	649	25%
Technical/Vocational Area														
Technical Training	15	63%	11	65%	43	78%	31	89%	20	87%	6	0%	126	79%
Vocational Training	9	38%	6	35%	12	22%	4	11%	3	13%	9	0%	43	25%
Total Technical/Vocational Area	24	11%	17	6%	55	8%	35	4%	23	7%	15	4%	169	6%
Grand Totals	226		273		686		785		334		341		2645	

NOTE: Percentages shown for individual Training Courses are percentages of its Total Training Area, not the Grand Total.
NOTE: Percentages shown for Total Training Areas are percentages of the Grand Total.

Table 10 5-Year manpower needs by occupation and nationality for all BOCCIM firms, 1991

ISCO Code	Occupational Title	1. Currently Employed Bum	Exp	Total	2. Current Vacancies	3. Need in The Next 5 Years	4. Develop From Within	5. Hire From Outside Bum	Exp	Total
1	Legislators, Administrators & Managers	2008	1080	3088	458	1720	777	638	305	943
11	*Legislators & Senior Government Officials*	0	0	0	0	0	0	0	0	0
12	*Company Directors and Corporate Managers*	1582	1046	3428	333	1651	708	638	305	943
13	*Small Business Managers & Managing Supervisors*	486	34	520	125	69	69	0	0	0
2	Professionals	2672	1589	4041	778	2348	986	1209	153	1362
21	*Natural Scientists*	56	42	98	0	111	28	83	0	83
22	*Health Diagnosis & Treatment Professionals*	28	28	56	14	42	14	28	0	28
23	*Building Professionals, Engineers & Related Professionals*	485	1027	1430	83	375	139	139	97	236
24	*Teaching Professionals*	0	14	14	0	56	28	28	0	28
25	*Social Professionals*	139	42	181	42	84	42	42	0	42
26	*Business Professionals*	916	333	1249	361	1083	527	500	56	556
27	*Miscellaneous Professionals*	920	83	1013	278	597	208	389	0	389
3	Technicians & Associate Professionals	3380	875	4255	472	2956	1097	1498	361	1859
31	*Physical Science Technicians & Equipment Controllers*	278	111	389	14	125	56	69	0	69
32	*Engineering & Building Associates & Technicians*	1083	347	1430	208	1152	680	444	28	472
33	*Life & Medical Science Associate Professionals*	0	0	0	0	0	0	0	0	0
34	*Finance & Sales Associate Professionals*	319	56	375	69	264	42	222	0	222
35	*Administrative Associate Professionals*	833	42	875	167	652	208	416	28	444
36	*Creative & Performing Artists, & Entertainment & Sports Ass*	361	56	417	0	292	28	236	28	264
37	*Primary & Pre-Primary Education Teachers*	14	180	194	0	194	0	0	194	194
38	*Miscellaneous Technicians & Associate Professionals*	472	83	555	14	277	83	111	83	194
4	Clerks	6998	125	7023	624	3006	1263	1943	0	1943
41	*Office Clerks*	4830	97	4927	430	2456	985	1471	0	1471
42	*Customer Service Clerks*	2068	28	2096	194	750	278	472	0	472
5	Service Workers & Shop & Market Sales Workers	7706	14	7820	319	1902	208	1694	0	1694
51	*Personal Service Workers*	5149	0	5149	14	819	0	819	0	819
52	*Protective Service Workers*	1305	0	1305	69	139	0	139	0	139
53	*Salespersons, Demonstrators & Models*	1332	14	1346	236	944	208	736	0	736
6	Skilled Agricultural & Related Workers	28	0	28	42	42	0	14	28	42
61	*Market-Oriented Skilled Agricultural & Related Workers*	28	0	28	42	42	0	14	28	42
62	*Subsistence Agricultural & Related Workers*	0	0	0	0	0	0	0	0	0
7	Craft & Related Trades Workers	13019	570	13589	1180	6858	1097	5677	84	5761
71	*Extraction Trades Workers*	0	0	0	0	0	0	0	0	0
72	*Building & Construction Trade Workers*	8855	0	8855	847	5177	694	4483	0	4483
73	*Machinery Mechanics & Fitters*	916	361	1277	97	542	28	458	56	514
74	*Other Metal Trades Workers*	652	56	708	42	277	69	208	0	208
75	*Electrical & Electronics Trades Workers*	625	97	722	83	209	56	153	0	153
76	*Precision, Handicraft, Printing & Related Trades Workers*	416	28	444	0	139	139	0	0	0
77	*Miscellaneous Craft & Related Trades Workers*	1555	28	1583	111	514	111	375	28	403
8	Plant & Machine Operators & Assemblers	4109	28	4137	361	972	278	666	28	694
81	*Industrial Plant Operators*	139	14	153	0	69	0	69	0	69
82	*Stationary Machine Operators & Assemblers*	1374	14	1388	153	236	125	83	28	111
83	*Drivers & Mobile Machinery Operators*	2596	0	2596	208	667	153	514	0	514
9	Elementary Occupations	25498	0	25498	916	4508	180	4178	0	4178
91	*Sales & Services Elementary Occupations*	3859	0	3859	291	999	83	916	0	916
91	*Sales & Services Elementary Occupations (Continued)*			0		0	0			0
92	*Agricultural & Related Occupations*	208	0	208	0	167	0	167	0	167
93	*Elementary Occupations in Mining, Construction, Manufactur*	21431	0	21431	625	3192	97	3095	0	3095
	Totals	65258	5041	70279	5150	24382	5886	17517	959	18476

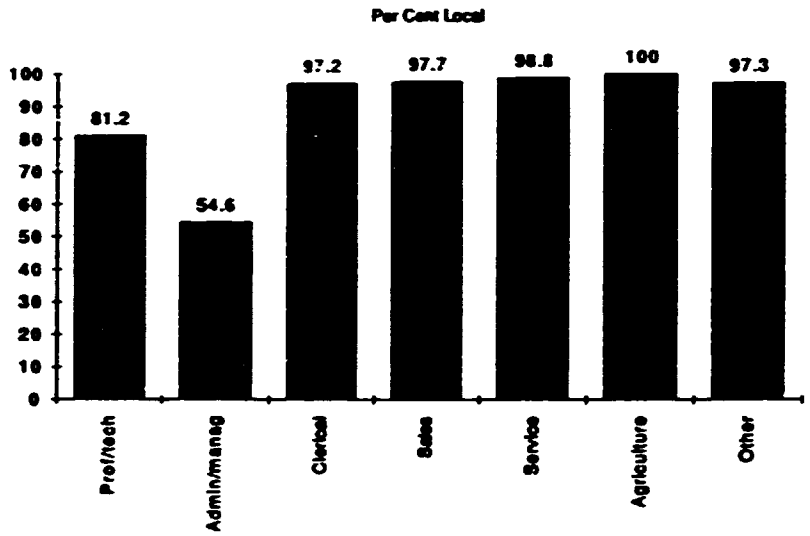
N as projected = 1319

Source: 1991 BOCCIM National Private Sector Training Survey

In spite of the two surveys from 1984 and 1991 not being completely compatible, it may be concluded that the percentages of expatriate personnel in the upper three occupational categories (administrative/management, professional and technical) have not changed, see Charts 12 and 13. This is also supported by the analysis of the distribution of work permits in 1991. The largest occupational

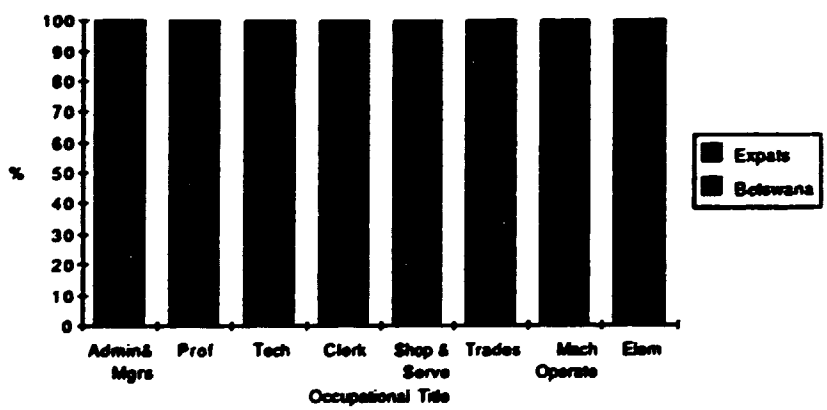
categories among the expatriate employees were Trade Workers (41%) followed by Professionals (18%) and Technicians (17%)s. Major categories of occupational employment included Mechanics (9%), Managers (7%), Civil Engineers (7%) and Engineering Technicians (4%). Other observation which could be made concerns the persistent need of training a large number of production and trades related workers.

Chart 12 Localization rates by occupation (%), February 1984



Source: Survey of Training Needs and Conditions of Work, February 1984, CSO 1985

Chart 13 Current employment by occupation title (%), 1991



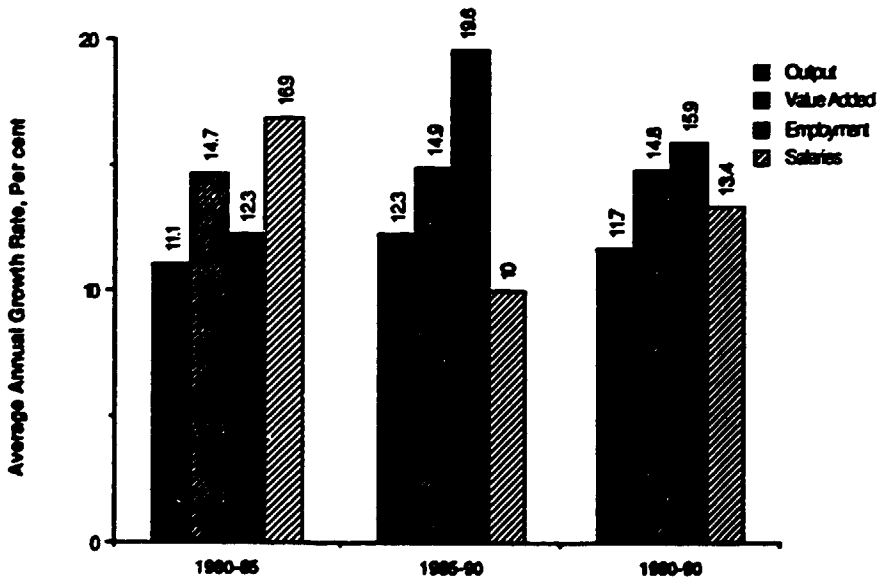
Source: 1991 BOCCIM National Private Sector Training Survey

Although gender disaggregation is applied to different sets of data in the two surveys, it is possible to identify some tentative patterns of female employment. In 1984 a high proportion of females in paid employment was found in professional/ technical category (12.5%) and very low

proportion in trades and production category (21.9%). Comparable proportions for males employees were 4.2% and 71.1%. This distribution resulted in higher average earnings for females than males. In 1991 across industry employment data indicate that the highest proportion of female paid employment was in finance, followed by construction, manufacturing and trade. Women are represented at all management levels, but in no industry do they come near 50% of the top and middle level management. Only in the finance industry do women constitute a clear majority in the supervisory positions. It also appears that women have diversified more into production worker categories, especially in manufacturing and construction. This was made possible by an increased participation rate of females in vocational training, an increase from 5% in 1985 to 18% in 1990/91. In the brigades more females were training in construction related trades than in textiles in 1989.

The manufacturing sector is still small compared to the other sectors of the economy, but it has developed in a relatively short period of time and has had a relatively high growth rate of value added, employment and output, see Chart 14. Botswana's membership of SACU gave the sector the same protection as that enjoyed by the South African producers vis a vis countries outside SACU. A domestic subsidy in the form of FAP in Botswana was initiated primarily as to counter balance RSA's subsidies offered under the Regional Industrial Development Programme (RIDP) to attract investors into Bantustans (Homelands). These subsidies offered special rates for industrial services such as land, transport and utilities. Another type of subsidy which benefited RSA producers was provided under the General Export Incentive Scheme (GEIS) intended only for exporters outside the SACU region. An abuse of this scheme affected competitiveness of producers in Botswana. In spite of the RSA incentives Botswana has managed to compete. This is an indication that Botswana's economic environment has been attractive to foreign investors. The main reasons for this include: a democratic, stable and secure political system; easy access to a large number of African markets, access to the EC market and other developed countries' markets through the Lome Convention and the Generalized System of Preferences; responsible fiscal and monetary management including minimal foreign exchange restrictions; and liberal licensing policy.

Chart 14 Average annual real growth rates, 1980-1990



Source: UNIDO/REG Data Base

The conditions for industrial development in the 1990s will be considerably affected by the rapidly changing political and economic environment in the Southern Africa region. Already, the first two years of the 1990s witnessed some important developments in the region which would require

adjustments in Botswana's macro-economic policies to retain the country's advantageous position. Emergence of Namibia as an independent state in 1990, relaxation of economic sanctions on South Africa, more tangible prospects for peace settlement in Angola and Mozambique affect the advantage enjoyed by Botswana in attracting foreign investment. Also, the recent devaluation of Zimbabwe Dollar as a part of the structural adjustment policies in Zimbabwe has already adversely affected the imports of cotton and exports of garments. An increasing rate of inflation together with pressures to keep wage levels from raising will affect the purchasing power on the domestic market.

The recently imposed 25% cut in sales of diamonds by De Beers as a response to an increase in diamond sales from Russia will have serious repercussions for Government revenue for some time to come. The present halt in construction activities due to the management crisis in the Botswana Housing Corporation creates additional pressure on the labour market. The private sector is seriously concerned about the already apparent signs of recession and a possible loss of up to 8 000 jobs. It is felt that foundations for the NDP 7 projections have been radically altered and there is an urgent need for introduction of special measures in support of the private sector in order to come closer to the expectations placed upon it to carry the major responsibility for industrial and employment growth under NDP 7.

1.3 *Industrial sector policies and future strategies*

The changes in industrial policies since the 1960s indicate a gradual shift from emphasis on provision of physical and social infrastructure including institution building to fostering infant industries development within the provisions in the SACU agreement in the 1970s. In the 1980s, the major thrust of Government intervention was to provide incentives for employment creation in the private sector. The industrial policies for the 1990s suggest that even more emphasis will be placed on the private sector to facilitate economic growth within a more market oriented economic environment. The present policy envisages diversification of the production base trough:.

- expansion of existing consumer goods/light industries (import substitution/regional export)
- development of local raw materials potential (downstream processing/increasing value added)
- encouragement of non-traditional exports (export promotion)

The NDP 7 policy and strategy does not single out any particular manufacturing branch for special promotion, it leaves the options open for the private sector to identify the areas of development opportunities. The Government intervention will be limited to:

- providing an enabling environment
- stimulating export diversification and promotion
- strengthening inter-sectoral linkages
- attracting investment
- promoting science and technology application
- stimulating development and efficient allocation of human resources

An assessment of viable alternatives for future industrialization as well as an appraisal of suitable supportive measures is presently being carried out by the World Bank. The study is expected to provide an input into the revision of industrial strategy formulated in 1984, as well as contributing to the formulation of an export promotion strategy. In the light of development objectives expressed in NDP 7, the new strategies will have to address the following issues:

- increasing competitiveness through productivity rise
- development of small scale and micro enterprises
- rural industrial development
- enhancement of female economic participation
- improvement of institutional management and financial structures/mechanisms

Realization of the expected industrial sector growth (7.5% p.a. GDP growth and 10% p.a. export growth, during NDP 7) will dependent on the potential for expanding local and external markets. With the increasing liberalization of trade regimes in the region and internal market competition the pressure for higher productivity and quality standards will be intensified. This will require more capital/technology intensive industries and higher skilled manpower than the case has been till now. The future pattern of industrialization has to be based on the exploitation of areas of Botswana's potential comparative advantage in a properly attuned enabling macro-economic environment.

Capitalizing on the potential of domestically available resources for developing downstream processing activities and increasing value added is an important option. A number of studies and brain storming sessions on industrial potential have been conducted in the last twenty years. The result from these exercises point towards the same groups of basic commodities and the products that can be produced from them, see Table 11.

Table 11 Possibilities for downstream manufacturing

Primary commodity	*Manufactured goods*
Hides and skins	*Leather and Leather goods*
Salt and soda ash	*Glass, detergents, table salt, and chemicals*
Uncut diamonds	*Cut diamonds and jewellery*
Semi-precious stones	*Polishing and jewellery*
Timber	*Veneers, parquet flooring,and plywood*
Raw silk	*Fabrics and clothing*
Game	*Meat, leather and leather goods*
Cattle horns and bone	*Buttons*
Tallow	*Soap and candles*
Fruits and veld products	*Dried flowers, jams, and plant processing for medical purposes*
Raw materials for handicrafts	*Beads, carvings, tapestry, and baskets*

An experience have shown that only a limited number of these are economically viable propositions. These include:

- leather
- game skins and meat products
- timber products
- soap manufacturing
- diamond cutting and jewellery manufacturing
- veld products and horticulture products
- cotton

It is felt that even from this reduced list, development of only the latter three commodities would make more than marginal contribution to the industrial sector development.

Depending on the political and economic evolution in the region as well as the potential overseas investors' assessment of business opportunities, relocation of certain type of industries from the more advanced countries could be envisaged. Trade and investment promotion incentives as well as international publicity will play a critical role in this respect.

II. INDUSTRY SUPPORTIVE PROGRAMMES

2.1 *Government enterprise development incentive schemes*

As a result of a Presidential Commission the National Policy on Economic Opportunities was formulated in 1982. The policy outlines areas of Government assistance to productive businesses. The **Financial Assistance Policy** (FAP) was established as an incentive scheme to promote import substitution and production for export. To a large extent it also provided a response to the South African Regional Industrial Development Programme. Different sets of incentives are directed at three types of productive sector investment.

a) ***Small scale projects*** with a fixed capital investment of less than P25 000 receive grants, the amounts of which are determined by the projects location, women ownership, employment level and whether the project is managed by the owner. This assistance is restricted to citizens. Applications are submitted through the Integrated Field Services (IFS) under the Ministry of Commerce and Industry.

b) ***Medium scale projects*** with a fixed capital investment between P25 000 and P900 000 can benefit from two packages of assistance. The *Automatic Financial Assistance* (AFA) includes geographically differentiated tax holiday , unskilled labour grants and training grants. The reimbursements are scaled down over a five year period and apply only to new manufacturing ventures. The *Case-by-Case Financial Assistance* (CFA) is awarded to new and expanding ventures which can demonstrate a real economic rate of return of at least 6% per annum. It includes capital grants in a form of P1 000 per job created by a non-citizen or a joint venture owned projects, and P1 500 per job created by a 100% citizen owned projects. In addition to the labour and training grants (same as for AFA), taxable sales augmentation grants are offered at a diminishing rate from 8% to 2% over a five year period. Applications are submitted through the Ministries of Commerce and Industry, Agriculture, or Mineral Resources and Water Affairs, depending on the nature of the project.

c) ***Large scale projects*** with a fixed capital investment in excess of P900 000 qualify for the same AFA and CFA packages depending on the nature of the projects. Applications have to be made to the Ministry of Finance and Developing Planning.

It is estimated that between 1982 and 1991 about 3 300 projects have been approved under the FAP. Most of these fall under the category of small scale projects where the failure rate of successful applicant has been high. It is estimated that about P98 million had been disbursed through FAP programme, creating some 25 900 new jobs. These figures include the relatively large financial and employment effects in 1991 created by approved projects under special promotion initiatives for the Selebi-Phikwe area. From the total amount of disbursements, about 11% went to small scale projects, 62% to medium size projects and 27% to large scale projects.

The FAP has had an overall positive effect on the industrial growth even though it has fallen short of the estimated employment creation of the approved projects. There are certain aspects of the programme which need to be evaluated to determine possibilities for making it more cost effective. One of these aspects is the administrative cost involved in processing applications. Due to the lack

of close monitoring there are no exact data on how many of the projects approved have actually started and sustained their production. It is estimated that only about 50% of the successful applicants from the small scale sector were still in operation after one year. The potential for abuse, especially of the capital grant under CFA, has been exploited by some medium- and large scale enterprises which have gone out of business after FAP expiry. The extent of this abuse has not been monitored although the FAP evaluation in 1988 estimated overpayment due to fraud and abuse to comprise over 1/4 of all disbursements in this category. Another area which should be looked at is the cost of promoting medium- and large-scale enterprises in rural areas. It has been estimated that grants disbursed for this purpose amounted to P6 000 per worker, more than double the amount received by projects in urban areas. The impact of FAP on the choice of technology and the rate of localization (training) affecting the productivity level is also in need of investigation.

The **Selebi-Phikwe Regional Development Project** (SPRDP) is a special export promotion scheme introduced in 1988 to boost the non-mining economy of Selebi-Phikwe (pop. 55 000). The project aims at ensuring a viable future for the mining town which is in danger of a decline due to the falling prices of copper nickel and decreasing reserves. This scheme is similar to the South African General Export Incentive Scheme. It grants special privileges (in addition to FAP) to large enterprises producing exclusively for export outside the SADCC and SACU region. Since 1988 four projects have been approved for FAP support in the SPRDP. Under the NDP 7 consideration is given to make SPRDP an Export Processing Zone.

The **Trade and Investment Promotion Agency** (TIPA) under the Ministry of Commerce and Industry was established in 1984 with an intension to provide a "one-stop" service for investors. The activities of TIPA fall into four broad categories: advisory services to potential investors, hosting as well as undertaking trade and investment missions in Botswana and in foreign countries, preparation of information and publicity materials to be disseminated through national and international media, and formulating an export development strategy as well as promoting realization of Botswana's export potential. There are at present six trade commissions stationed in Africa, Europe, USA and the Far East. So far, the intention of TIPA being a "one-stop" service has not materialized. The responsibilities for issuing immigration and work permits, land allocation and licenses still remain with other departments, ministries and local authorities. In addition, the low priority in budget allocation and restriction on staff hiring limits the effective scope of TIPA's activities.

The **Integrated Field Services** were introduced under the Ministry of Commerce and Industry in 1986 as a package consisting of business advisory and financial services, provision of industrial infrastructure and training to assist small scale enterprises, predominantly in rural areas. There are six regional offices with fourteen district branches distributed all over the country. Nine industrial estates are concentrated in Gaborone (3) and Francistown (4). Two rural estates are in Mochudi and Kanye. IFS officers are responsible for dissemination of information about the assistance package, identification of potential entrepreneurs and areas for investment, helping with FAP applications, arranging training courses and follow up recipients of FAP. Given the vast geographical area they are often covering and an inadequate provision of transport, their task is formidable. It was stated that assistance with FAP applications and processing takes more than 70% of their time. This reflects on the complexity of the procedure and also difficulties experienced by applicants in understanding it.

Due to an inadequate manual record keeping no readily available statistics are available about the success rate and profiles of FAP recipients, neither their geographical distribution. Two recent studies, Micro and Small Scale Enterprises in Botswana from 1992 and The Effect of Gender on Access to Credit and Grants in Botswana from 1991, throw some light on these issues. The success rate is estimated about 40%-50%, but it could be as low as 30% in some districts. An interesting point made by the latter study is the inadequate coverage of urban and peri-urban areas. The findings reveal that access to formal financial assistance in urban locations, particularly in Gaborone, is

considerably lower than in rural locations, regardless of gender. Another point made by the same study is the importance of small scale industrial enterprises to female headed households especially those without cattle. This is connected to the dependence of farming activities on draught power (45% of all rural households do not own any cattle). 48% of rural households are women-headed (*de facto* and *de jure*) and about 60% of women in the sample did not own any cattle.

The **Local Preference Scheme** provides incentives to Botswana manufacturers which sell to Government, local authorities and parastatal companies. The 40% price advantage on local value added over goods of foreign origin, gives preference to local producers when tendering for public and para-statal contracts. The scheme has a potential to benefit small scale enterprises, especially those established under **industrial reservation policy** (excludes foreign investors from manufacturing activities requiring a relatively low level of technology and capital). However, it has been shown that small contractors have problems with meeting the quantity and quality specifications, as well as the time schedule of orders.

Infant industry tariff protection may be granted under the Southern African Custom Union Agreement (SACUA) for a maximum of 8 years to enable new industries to compete with producers in the CCA. This protection clause has been applied only in few instances (e.g. brewery and soap) due to the complexity of the application procedure and a strong objection of RSA producers to the competition from Botswana. An additional problem has been the consumer loyalty in Botswana to South African and international brand names and complains about quality and price.

Government supported schemes directed at income generating activities in rural areas include programmes under the **Ministry of Local Government and Lands**, the *Accelerated Remote Area Development Programme* (LG 32), and the *Village Development Committees Project* (LG 17) which became the funnel for donor finance during the drought to support labour intensive public/community works in rural areas. Both projects, LG 32 and LG 17, are primarily rural infrastructure oriented, but also provide support for productive activities (finance, training). It was during the Drought Relief Programme that a large number of rural women found income earning opportunities in the construction sector, especially in the *District Roads Labour Intensive Improvement and Maintenance Programme* funded by NORAD (LG34).

Another type of income generating programmes target the farming sector and come under the responsibility of the **Ministry of Agriculture**. The *Arable Lands Development Programme* (ALDEP) is the largest arable agricultural programme consisting of technology, inputs, training and finance packages to improve crop yields of individual households. In recent years 50% of the beneficiaries have been female-headed households. The *Agriculture Extension Small Projects Programme* (AE 10) aims at facilitating improvement of agricultural production through grants to farmers' groups (at least five members) who are required to contribute (incl. in-kind) 10% of the total project cost. About 44% of all projects are income generating (horticulture, poultry, fishing etc.) with an estimated 50% failure rate.

2.2 *Financial institutions*

In 1992 there were six **commercial banks** in Botswana. Barclays Bank of Botswana and Standard Chartered Botswana dominate the market. The general complaints about commercial banks' lending policies include high security required (up to 150% of the loan value), shortage of long term loans, high interest rates, high requirements for equity, and general preference for large firms with at least partial foreign ownership. About 50% of the commercial bank loans (in the number and value of loans) are under 12 months maturity and about 40% between 1-5 years. Only 6% of the number of loans and less than 10% of the loans value have a maturity over 5 years. Lending to a local small

scale entrepreneur is too risky and costly a proposition. Even the credit guarantee schemes that were tried to get the commercial banks involved in development lending have not been successful. The banks argue that the overhead cost for screening applicants and following up repayments of small loans is too high. For the time being, the banks do well without this additional burden.

The Botswana Building Society lends housing finance to middle and upper income households but also provide funding for the construction of commercial properties. The Accelerated Land Servicing Programme (ALSP), recently initiated by the Government, will increase the bank turnover but additional technical assistance for appraising applications as well as raising additional finance from other than Government sources will be required.

The National Development Bank (NDB) with six regional and 12 district offices is expected to provide long term financing (5 to 10 years) with flexible grace periods for industrial/commercial and agricultural projects. The loan criteria include a minimum 25% contribution in cash or kind and security of 133% which generally constitute major constraints to potential small business borrowers. The NDB has been experiencing difficulties in trying to recuperate losses on default loan payments.

The Botswana Development Corporation (BDC) is a parastatal company that was established in 1970 to help finance new companies and projects by issuing loans and procuring equity on a profit making basis. In 1990 BDC had an interest in 104 companies (36 subsidiaries, 32 shareholding companies and 36 firms with loan finance) with a direct employment in the group of 10 100. The loans provided are on a flexible and negotiable basis, up to 15 years, and although 100% security is required the collateral is smaller than that of commercial banks. BDC's portfolio covers all sectors of the economy with a projected disbursements of P469 million for the period 1990/91 to 1994/95. The Government is the largest supplier of finance.

Tswelelo was set up specifically to meet the needs of fully or at least 51% citizens owned small and medium scale enterprises by providing a comprehensive range of financial and non-financial services. The shareholders in Tswelelo are the National Development Bank (35%), the Botswana Development Corporation (35%), and a financing institution from the Netherlands, FMO (30%). GTZ provides technical assistance. The equity requirements are 10% and security 150%.

The Women's Finance House (Thusang Basadi) is a non-profit making NGO affiliated to Women's World Banking. It was founded in 1989 and in operation since late 1990. It is presently being financed on a pilot basis by amongst others, NORAD, SIDA, HIVOS, and UNICEF. The target group are poor peri-urban and rural women who already have or are thinking of starting a business (trade or production). In the first year only training programmes in basic management and accounting skills have been developed and tested. Credit schemes are presently being developed.

2.3 *Technology development*

The Botswana Technology Centre (BTC) was established in 1979 as the national focal point for science and technology development. BTC is charged with the responsibility for identification, assessment, adaptation, evaluation, and monitoring of technology in support of private and public sector development. There are three divisions in the Centre to carry out these functions: Technology Development Division, Technology Information Services and Techno-economic Assessment Unit. Under NDP 7 the Centre is expected to initiate formulation of a *National Research, Science and Technology Policy*. BTC is wholly funded by the Government and its financial and policy matters fall under the portfolio of the Ministry of Finance and Development Planning.

The *Food Technology Research Services* (FTRS) is a project administered by BTC on behalf of the Ministry of Commerce and Industry. The main functions of FTRS include: research and development related to food processing technology; provision of advisory and consultancy services to the public and private sector including standards and quality control of locally and imported food products; answering specific technical queries; and providing extension and training services including training courses on simple food processing technology for rural women. A number of small scale industries have benefited as a result of direct technical assistance from FTRS. Recently, FTRS has been asked to design and run in-service training on quality control and hygiene for production and supervisory level staff in food processing companies. These consultancy services are rended on a commercial basis.

The **Rural Industries Innovation Centre** (RIIC) was established as a non-profit making company with a support from Friedrich Ebert Foundation in 1974. Since 1984 the Government (Ministry of Commerce and Industry) has covered most of the running costs as well as provided development finance together with donors such as GTZ, NORAD, and HIVOS. The functions of the Centre include: development, testing and production of new technology; running commercial training courses in crafts, trades and in use of the new technology; extension services (Village Artisan Programme); running and/or supervision of production units; and provision of tools, working capital and assistance to village enterprises set up by formal trainees (e.g. blacksmith workshops).

The new technology developed are in response to needs in rural areas identified by the field extension services of various Ministries (Commerce and Industry, Agriculture, Construction and Water Affairs) as well as the staff of the Centre. Due to the small local market, the major problem is in manufacturing the new technology at an acceptable cost. RIIC developed sorghum dehuller technology which is used prior to further processing (milling) contributed not only to establishing of many private milling centres in Botswana. Successful marketing of the technology also resulted in its export to a number of countries in Africa.

RIIC trains about 250 people a year plus up to 100 people are trained through extension services. The success rate for small scale enterprise supported by RIIC is estimated at 60%. There is a close cooperation with IFS and donor organizations supporting the training cost of participants linked to their projects.

2.4 *Donor supported schemes*

There are various donor schemes in support of productive and income generating activities. Most of donor agencies have adopted an integrated approach in their programmes/projects, which may include all or a combination of training, finance, marketing, technology and physical infrastructure components. Many donor programmes concentrate on small scale enterprises in the informal sector, especially in rural areas. Women are often chosen as target beneficiaries. There is presently a feeling among donors that many of the projects have not resulted in a self sustained growth and/or have considerably improved the economic status of the target group. In addition, it is felt that shortage of projects attractive to donor funding result in duplication of efforts and competition among the agencies. The Rural Industries Promotion (RIP) is planning to organize a conference/workshop on small scale enterprises where government, donors and NGOs would exchange their experience, identify common problem areas and agree upon a coordinated future strategy. The UNDP has also taken initiative to consolidate available information and assess different approaches to women aided programmes/projects financed by various donors and NGOs present in Botswana.

USAID is the largest donor involved in supporting the private sector. There are three elements of their assistance:

a) *Botswana Workforce and Skills Training Programme* (BWAST) started in 1987 and will run till 1993. It aims at increasing the number of trained Batswanas by providing:

- technical assistance in filling line positions with counterparts training in Ministries, parastatals and private sector associations;
- training in Botswana, the SADCC region and in the USA; and
- management of training.

The BWAST budget is US$ 25 million. It is estimated that about 200 people have benefited from the training so far.

b) *Botswana Private Enterprise Development Programme* (BPED) was approved in 1991 with a budget of US$ 16.3 million over a six year period. The major objectives of this programme include:

- increase domestic and foreign investment in non-mineral sectors of the economy;
- broaden opportunities for citizen entrepreneurs; and
- increase effectiveness of policy dialogue between public and private sectors with a focus on removing constraints hindering investment.

It is expected that the project will lead to:

- an establishment of 360 new and an expansion of 500 citizen-owned businesses, as well as and an establishment of 10 joint ventures with foreign investors;
- a self-sustaining, private business organization capable of representing and serving the private sector;
- an establishment of mechanisms for analysis, implementation and improvements of government policies affecting private sector; and
- creating 4 000 new jobs

This is to be achieved by the following project's components:

- providing BOCCIM with three advisors in training, policy and management and by inancing long term and short term training in technical, vocational, and middle level management skills aimed at small and medium size enterprises;
- providing BDC with a Senior Project Officer, and Principal Operations Advisor to assist in development of medium and large enterprises (at least 40% locally owned) by financing feasibility studies, pre-production training, business linkages and investment trips;
- provide long-term training for up to 20 Batswana to obtain M.A. degree in business and management related studies in addition to financing short-term courses overseas for 80 participants; and
- placing a policy advisor in the Ministry of Commerce and Industry.

The International Executive Service Corps will provide short term consultants on production and operational management. It should be pointed out that any assistance given by BOCCIM under the USAID project to textile and leather producers would disqualify them from exporting to the USA.

c) *Loan Guarantee Scheme* was set up to promote loans to high risk clients. This loan guarantee facility is made available to local financial institutions (Barclays and Standard Chartered bank) which use their own loan criteria and funds and only in borderline cases call upon the USAID facility to share the risk. They have to pay 1% commitment fee for this service.

The American Overseas Private Investment Corporation (OPIC) is involved in financing and equity participation in private sector companies in Botswana through their regional office in Nairobi.

The UN system's support to the productive sector is mainly in the form of a technical assistance and concentrated in areas of foreign investment promotion, production improvements of small scale enterprises, export promotion, policy formulation and strengthening of government institutional capacity.

a) *UNIDO*'s Industrial Promotion Services department (IPS) organizes meetings and seminars to promote foreign investment, such as a solidarity meeting for investors from other regions which took place in Gaborone in October 1991. Offices of IPS in Europe, the USA and Asia promote contacts with potential investors from industrially advanced countries. In addition, a contribution of US$1.2 million was made available by UNIDO to a special fund in the Ministry of Commerce and Industry for conducting feasibility studies.

UNIDO's project on Establishment of a Clothing Unit in the Department of Supply (US/BOT/87/097) contributed to the promotion of small scale manufacturing of clothing to produce good quality garments, on time, and at a reasonable price to the Government which is the largest purchaser and consumer of clothing in Botswana. Technical assistance and training was provided in areas of production management, planning and control, pattern cutting, grading and styling, and in quality control. The project was completed in 1991 at a total cost of US$537 300. The major beneficiaries, apart of the staff of the Clothing Unit, have been small scale women run establishments (approx. 30 units) which became regular sub-contractors to the Department of Supply.

A pipeline project on Institutional support to small scale industries aims at strengthening the delivery capacity of IFS staff in three regional offices.

b) *ITC* project on Trade Expansion and Diversification, Phase I and II (BOT/88/002 and BOT 91/002) consists of three components:

- trade promotion
- formulation of export development strategy
- improving performance of individual enterprises

The support is provided through technical assistance to TIPA. A technical advisor has been responsible for initiating the formulation of an export development strategy and carrying out a special training needs assessment in the area of marketing, leading to a design of a modular training programme in export marketing management.

The second phase of the project which started in June 1992, continues to strengthen TIPA's capacity in promoting new investment in export oriented manufacturing and in upgrading local small scale producers to the level of exporters. Technical assistance is linked to a regional project (RAF/50/30) and includes technical, management and marketing support to a target group of women run leather and tapestry businesses.

GTZ is a German Technical Cooperation Agency which is primarily involved in technical assistance to vocational training (the Automotive Trades Training School and the Madirelo Trade and Testing Centre) and technology development (the Rural Industries Innovation Centre). There is a GTZ expert in Tswelelo to provide advise and training in areas of business creation and performance evaluation. Presently, GTZ is considering to provide support to the National Chamber of Commerce and Industry.

The NORDIC agencies (NORAD, SIDA, FINIDA) have tried to promote direct links between their industrial private sector and local (Botswana) enterprises. For this purpose, separate organizations have been established in Sweden (Swedecorp), in Finland (Finnfund) and Danmark (IFU). Only Norway has a department for promotion of private industrial sector under NORAD (I&N). The assistance to joint ventures provided by these specialized organizations (supported through

the respective country's development aid finance) may include financing of feasibility studies, loans, investment in basic infrastructure, training, and even provide equity capital. There are at present 4 local partnerships with Swedish firms (incl. 1 under negotiations) and 3 partnerships with Norwegian firms. Botswana has attracted 20% of all Nordic countries' joint ventures in the SADDC region (7 out of the 37 joint ventures in 10 countries).

2.5 *Coordination and integration of supportive schemes*

The institutional framework at the central (Government) as well at the district (Local Authorities) level tries to coordinate and integrate various supportive measures. There are various coordinating bodies dealing with the promotion of the industrial sector. The following high level coordinating bodies have been set up to ensure consultation and coordination between various ministries and between public and private sector on policies, strategies and other issues concerning the development of income earning opportunities in urban and rural areas:

- *Industrial Development Advisory Committee*
- *Industrial Extension Coordinating Committee*
- *National Advisory Board on Apprenticeship and Industrial Training*
- *National Employment, Manpower and Incomes Council*
- *National Industrial Training and Technical Education Council*
- *Rural Development Coordination Division*
- *Manpower Allocation Committee*
- *biannual conferences between the public and private sector*

At the district level various committees have been set up to ensure the involvement of local communities as well as to coordinate activities of various field extension services. These include:

- *Village Development Committee*
- *District Council Extension Coordinating Committee*
- *District Development Conferences*

There is little doubt that the logistical framework for planning and coordination and also for implementation of policies and programmes is adequate. What seems to be the major problem for the implementing agencies is their capacity to use the established mechanisms effectively. Inadequate staffing as well as the quality of the available human resources to carry out the expected tasks is often the cause of complaints. In view of the persistent shortages of skilled manpower it may be necessary to evaluate the present mechanisms and delivery systems to identify areas of priority and rationalization of human resources. Ways of simplifying bureaucratic procedures, greater involvement of local communities and private sector, as well as appropriateness of certain schemes to deal with causes of problems may have to be examined.

III.KEY ISSUES

3.1. *Private sector development*

The private sector is expected to provide a large contribution to the projected growth of the economy by expanding output in the manufacturing and service sectors. The Government is to provide an enabling environment allowing freer play for market competition. Past Government policies and assistance affecting the business environment have been and/or being reviewed. The present economic situation makes the private sector concerned about the ability of the Government to meet the projected growth of Government services envisaged to support the private sector. The private sector considers the premises on which the NDP 7 is built to be eroded and in need of revision. The private sector, through BOCCIM, hopes to enter into a dialogue with the Government to address these issues.

Opportunities for the creation of sustainable employment in the formal sector will be limited if the rate of companies growth remains at the present level. Manpower projections by BOCCIM member firms in 1991 indicated 22 200 new jobs to be created between 1991-1995, of which 24.2% (4 500) will be filled by personnel currently employed by member firms, while 75.8% (17 700) will be hired from outside the firms. The projections identify the highest manpower needs in the categories of trades and low skill occupations.

The NDP 7 projections for the yearly increases in the labour force are about 21 000. Out of these approx. 1 000 would have a high educational degree, 12 000 would have education and training, and 8 000 would have some basic education and/or training. The Government will have the first claim on the best high level graduates. The projected increase in manpower in central and local government posts (based on 5% vacancy rate at the end of NDP 7 as opposed to the present 8.4% vacancy rate) is 12 664 during NDP 7, an average of 2 110 a year. Out of the total 2 085 will be in the professional/technical category, 1 700 will be in junior category with a Cambridge Certificate and the rest 8 874 are in manual worker category.

The mismatch between the private sector's assessment of realistic employment opportunities in the formal sector and the government projections of the expected growth of the labour force imply that the growth of the private sector has to be accelerated and a great deal of job opportunities has to be found in the informal sector.

The growth of the informal sector (estimated at 7%) has not been as large as the experience from other developing countries may suggest. This is to a large extent due to rather unique conditions in Botswana. The most common reasons for the growth of the informal sector can be traced to legal and economic barriers related to the access to the formal sector. These would be in areas of licensing, taxes, finance, foreign exchange, marketing, prices, wages and employment conditions and localization. Most of this kind of barriers have been removed in Botswana. This is also confirmed by the findings of the recent study on Micro and Small Scale Enterprises in Botswana.

Another reason for the growth of the informal sector is the deficiency of the formal sector to satisfy the needs (at affordable prices) of a particular section of a population and/or geographical region (distribution channels). The experience in Botswana shows that the informal sector (including micro- and small enterprise) finds it difficult to compete in the variety, quality and in price with the formal sector. More important is perhaps the relative cheapness and easy availability of basic goods produced in South Africa for exactly the market segment which could be served by the informal sector. A lack of entrepreneurial and business skills is also an often quoted explanation for the slow growth of employment opportunities in this sector.

3.2 *Rural industrial development*

In 1991 70% of Botswana's population resided in rural areas. The majority of the rural population is composed of women and children. Government policy is to bring about rapid rural development by encouraging people to settle and invest in rural areas. So far, rural development has not been sustainable and the rural population is getting impoverished. (Sustainable Rural Development, Botswana Society, 1992). Government has offered incentives for businesses to locate in rural areas and thus provide employment for the population. An example is the Financial Assistance Policy (FAP) which is aimed at encouraging employment creation by giving an 80% labour grant; giving female entrepreneurs a 10% advantage in the size of the grant over males; and approving a bigger grant if the industry is located in rural rather than urban areas. It has been shown that it costs twice as much in labour subsidies to create jobs in these areas through medium and large scale enterprises as in urban areas.

The establishment of the Integrated Field Services (IFS) under the Ministry of Commerce and Industry aimed at providing an integrated package of technical, business and financial assistance to potential entrepreneurs in rural areas. The effectiveness of this programme judged by the number of new enterprises sustainable after the termination of the financial subsidies is not high. The rate of "successful businesses" as a percentage of those which benefitted from the FAP is indicated between 30-50%. Findings from the recent study on Micro- and Small Scale enterprises shows that 27% of the sample of enterprises were aware of FAP existence, and only 4% have actually received it. Common problems experienced by potential entrepreneurs in rural areas is the lack of access to information concerning existing extension services (finance, training, technology), their low level of education/training and own capital to benefit from these services, access to inputs at competitive price, marketing possibilities for their products and availability of serviced industrial land. For women the situation is even more critical since they constitute the highest proportion of the rural illiterate population, lack a collateral for obtaining loans, and if married, lack also the freedom to enter into legal contract without a consent of the husband.

The content of training courses, the quality of trainers and overall coordination of projects/programmes undertaken by the Government, aid agencies and NGOs need to be evaluated in terms of their overall impact in the designated areas of activities, on the identified target beneficiaries, and on the achievement of initial objectives. There is no doubt about the need of extension services in rural areas. The questions are how well informed the potential recipients are about these services, what are their expectations and needs, and how these needs can be met in a cost effective way.

The IFS officers are spending 70-80% of their time assisting applicants to fill the FAP forms, processing the forms and keeping records of the approved applications. There is little time left for dissemination of information, identification of viable investment opportunities and training needs, conducting/organizing training courses and follow up of individual FAP beneficiaries. The cadre of IFS officers, mostly fresh graduates from the university, lack business experience themselves and do not have the appropriate training to deal with problems of a rural community environment. The selection and the content of courses may not be appropriate and/or arranged at the right time for the needs of selected participants. Functional literacy, skill training in the relevant trade and/or business may have to precede the approval of a grant or a loan. Duplication of efforts in one area of training by different agencies having an interest in the same target group/region may omit others equally in need of assistance but of a different kind.

3.3 *Export promotion*

In order to succeed in the promotion of non-traditional exports several conditions have to be satisfied. The products have to be marketable at the right price, design, quality, service and time of delivery to satisfy the intended customer, whether regional or international. This implies stringent adherence to international standards, market research and analysis, and development of new products to ensure competitiveness. Attracting foreign investment in areas of export production can facilitate the necessary break through into export markets as demonstrated by the textile companies established in Selebi-Phikwe. The present and expected competition for foreign investment in the Southern African region will require constant monitoring for Botswana to match the incentives of neighbouring countries. An assistance from the Government will be needed to make the macro-economic environment in Botswana more conducive to international competitiveness of potential exporters.

The Government has taken steps to improve its macro-economic policies in areas which directly or indirectly affect the competitive environment. These include a White Paper on Revised National Policy on Incomes, Employment, Prices and Profits (1990), a Presidential Commission on

the Review of the Incomes Policy (1990) and a Presidential Commission on Salaries and Wages (1992). The Trade and Investment Promotion Agency (TIPA) under the Ministry of Commerce and Industry will assist local producers in improving their performance, promote regional and international trade, and promote foreign investment. It is expected that TIPA becomes a "one stop" service agency for investors. At present, the time from applying for company registration, industrial licence, work permit and land allocation to the actual start of a project can be between 3-8 months.

Increase in productivity will be crucial to competitiveness. Productivity, measured as the value of output per employee, is a result of a number interrelated factors such as price of inputs, technology, wage and employment policies, technical and managerial skills, working conditions and the market price for the finished product. Two industrial branches which have shown the potential for export, textiles and leather products, have recorded the highest productivity decline during the 1980s. Given that these two industries will have difficulties in exporting to the USA market if they benefit from the USAID assistance programme under BOCCIM, there may be a case for support from different agencies. Depending on the Export Development Strategy which is under consideration, there may be need to target priority industries for special assistance to improve their productivity levels.

Prices of inputs which are mostly imported trough/or from RSA are relatively high. Botswana belongs to SACU and therefore automatically comes under the South Africa's import tariff regime with very high duties on a number of inputs which RSA produces and/or aims at producing. At the present time, negotiations about SACU's future are being delayed pending the political developments in RSA. However, the question of sourcing of manufacturing inputs in bulk for re-sale at competitive prices to small scale producers should be addressed. An experience of the Clothing Unit in the Department of Supplies in purchasing and distributing material to local garment manufacturers could be examined with a view of similar arrangements for other industrial branches.

There is a shortage of a serviced industrial land which pushes the prices up. In addition the cost of utilities for industry is relatively high compared to other countries in the region. This, coupled with high cost of inputs from RSA, makes the cost structure less competitive for Botswana producers. The question is how the cost of providing these services can be reduced rather than how to subsidize them.

Improvements in management has been identified as an important element in improving productivity. The training needs assessment in the private sector made by BOCCIM clearly indicates the necessity to enhance managerial skills in areas of supervision, production and marketing. Marketing was also included among the top areas where new knowledge was needed. TIPA's analysis at the enterprise level of export marketing training needs estimated that at least 250 managers at all levels require training in various aspects of export marketing (finance, strategy and planning, market research, legal aspects, standardization and quality control, packaging). The training efforts in this area will have to be strengthened.

3.4 *Technology and training*

Government policies and strategies for the industrial sector have emphasized employment creation as one of the major development objectives. Although most of the incentives are designed to promote labour-intensive activities there are certain discretionary incentives available to benefit capital-intensive projects. These are in the form of tax rebates granted under the Development Approval Orders and Tax Agreements but only when enterprises begin to make profits. It was hoped that providing incentives for in-plant training would enhance local production and managerial skills and thus facilitate localization.

Some preliminary analysis of the FAP disbursements to medium and large enterprises show that reimbursement claims for training grants (50% of training costs) were less than 2% of the FAP disbursements in 1991. The percentage is even smaller in the preceding years, but it went up to 2.8% in the first eight month of 1992. No investigations have been made as to who the beneficiaries of these grants were and reasons for what seems to be a low utilization of this training incentive. Some indications are that the application procedure is too cumbersome and not worth it since the compensation covers only 50% of courses' fees but excludes travel costs, salaries and loss of production due to training. This seems to be an important area for closer examination.

The effective demand for vocational and technical skills in the private sector is not going to be met by the public training institutions (vocational training centres, brigades, polytechnic) for some time. According to BOCCIM's manpower needs assessment in the next five years, the demand for craft and related trades workers is highest, almost 7 000. In addition, there will be demand for about 1 500 technicians and engineers. These figures do not include potential demand from the informal nor the public sector. The NDP 7 projections suggest that by 1995 about 2 000 trained technicians and engineers should be produced by the University and the Polytechnic. In addition, the output from vocational training centres and brigades is estimated to reached a total of over 10 000 artisans. Although these projections indicate that the nominal demand from the private sector could largely be met, there are certain conditions which have to be fulfilled to close the present skill gap.

For the industry to benefit from the supply of trained manpower the areas of training have to correspond to the sectoral and specific branch requirements. Secondly, the fresh graduates will need to acquire some practical in-plant experience before productivity gains could be expected. Thirdly, it is not sure that the output of trained manpower will be available to the private sector. The government and parastatals have, under the present agreement, equal allocation rights to high level graduates. In addition, a certain proportion of trained manpower may go for further training abroad and/or decide to seek employment in other countries in the region, depending on the competitiveness of wages and employment conditions. All these conditions point to the need of closer cooperation between the Government, the private sector and the employees on issues concerning training and manpower allocations, wages and conditions of employment. Fulfilment of these conditions will also depend on the role of in-service training which will become more important, especially in view of the expected technological changes.

In order for the private sector to undertake in-service training in a more structured and objective oriented fashion, some policy guidelines consistent with the policy on Research, Science and Technology have to be developed. A more clearly defined strategy and objectives will also facilitate the setting up of mechanisms for monitoring the progress of localization. It may prove necessary to provide more incentives and organizational support (assistance in devising in-service training programmes, scholarships, training material, trainers) to encourage the private sector's commitment to localization. Since a large section of the private sector falls into the small and medium scale category provision of other than on-the-job training may not be possible. In order to facilitate a career oriented and higher quality in-service training, facilities outside the enterprises may have to be provided. Since only a small cross-industry variation in training needs was identified by the BOCCIM survey, the private sector may benefit by a coordinated and comprehensive plan for a modular type of training programmes. Also, an assessment of the need for establishing a private industrial training centre could be contemplated.

The level of technology is closely associated with the level of productivity. It was shown that for relatively technology intensive manufacturing branches such as beverages, chemicals, wood processing and metal products productivity levels in the 1980s have had a less dramatic decline than more labour intensive industries such as textiles, leather and food processing. The experience from other developing countries in facilitating transfer of technology through encouragement of private

foreign investment and joint ventures, has been positive. It is the intention of the Government to enter into such partnerships during NDP 7. Some of the Nordic countries are also trying to promote joint ventures between companies in Scandinavia and those in Botswana through special agencies with aid financing. This effort should be encouraged.

Attention to the development of technology appropriate to the needs and conditions in rural areas is just as important. Emphasis on employment creation in non-farming activities is one of the development objectives. The efforts of RIIC in the development and production of appropriate technologies should be supported so that they can be disseminated to potential users at an acceptable price. Training of trainers and enhancing the capacity of the research staff by additional training is also an area requiring support.

IV.CONCLUSIONS

4.1 *Integrated approach*

Use of integrated approach in the formulation of assistance programmes can be interpreted as addressing all necessary aspects identified as crucial to the achievement of a given objective. The functioning of the production sector depends on an interaction of the following components within a given macro-economic environment:

- *inputs (raw materials, intermediate and capital goods)*
- *human resources (education and training)*
- *physical capital (technology and know-how)*
- *infrastructure (land, utilities, communication)*
- *distribution and marketing*
- *investment finance (grants, loans, equity, subsidies)*

Support addressing these components can be differentiated by criteria consistent with specific policy objectives targeting geographical areas and/or beneficiaries. The following are examples of some relevant criteria:

- *production for local and export markets*
- *rural and urban areas*
- *gender division*
- *small-, medium- and large-scale enterprises*
- *public, private and informal sector*

It may prove difficult to group different supportive measures under one specific package addressing exclusively one component or one criteria. The choice of components and criteria to be addressed by a specific programme will often depend on the policies and objectives of the implementing agency. These are generally derived from the overall national development policy and/or sectoral and sub-sectoral strategies.

Botswana's National development objectives include: sustained development, rapid economic growth, economic independence, and social justice. These objectives form the guiding principles for the industrial sector development policy which aims at increasing employment and income earning opportunities. This is to be achieved by encouraging the private sector to diversify the base of productive activities in urban and rural areas, and promoting export.

The review of Government employment and income generating policies and strategies as well as an assessment of various supportive programmes provided by the public, private and donor sector, identified some key issues which need to be addressed in the context of the expected future changes.

These issues highlight areas which may require strengthening within the existing assistance programmes, as well as additional ones which could be included in the present packages and/or be part of a new programme.

4.2 *Identified gaps*

Below is the summary of areas/measures identified as either missing or in need of strengthening under the existing programmes.

a) ***Provision of inputs***
- sourcing of inputs in bulk for re-distribution to small scale producers at competitive price
- follow up on implications of SACUA renegotiations

b) ***Human resource development***
- management framework for policy formulation, planning, implementation and monitoring of in-service training
- management training in export marketing
- evaluation of training incentives to the private sector
- evaluation of a need for establishing a special industrial training centre supported by the private sector
- provision of scholarships and apprenticeships abroad to the private sector
- encouragement of female participation in training for traditionally male occupations
- inclusion of adult education and functional literacy in training of field extension staff
- coverage of peri-urban areas
- training of trainers
- local communities education
- assessment of cost effectiveness and possible improvement of extension services delivery systems
- examination of the content and relevance of training courses to suite the needs of different target groups

c) ***Development and transfer of technology***
- support for joint ventures (the Scandinavian model)
- assessment of potential productivity improvements through technology upgrading in selected industries
- incentive for technology improvements
- support for production and dissemination of indigenous technologies at affordable price to potential users
- scholarships, study tours for research staff

d) ***Provision of industrial serviced land and utilities***
- increase availability of industrial serviced land at a competitive cost in the regional context
- review competitiveness of utility charges for industry in the regional context
- availability of financial sources for industrial buildings at a preferential interest rate

e) ***Distribution and marketing***
- consumer education to influence the biased consumer loyalties to RSA brand names towards Botswana brands
- distribution channels for small scale producers
- encourage establishment of firms under foreign license

- clearing houses for small sub-contractors (coordinate orders and deliveries)
- advisory services in market research, analysis and monitoring
- international foreign investment promotion
- monitoring of local competitiveness in regional and international context
- implementation of international standards and quality control

f) ***Investment finance***

- increase availability of risk capital for small scale enterprises
- increase availability of long term loans
- encourage alternative systems of lending (revolving funds, equities)
- coordination of services for investors ("one-stop" service)
- coordinated data base for monitoring FAP applications and disbursements
- simplify FAP application procedures for micro and small scale enterprises
- better coverage of potential FAP applicants from the informal sector in urban and peri-urban areas
- review the legal requirements for married women prohibiting them to act as borrowers in their own right
- review equity and security requirements for small scale entrepreneurs, especially women

4.3 Programme formulation

The Government and donor agencies' programmes addressing the objective of employment and income generation can be divided into three broad categories:

- support to micro and small scale enterprises (informal sector)
- support to medium and large scale enterprises (formal sector)
- export promotion (formal sector: local and foreign investment)

4.3.1 ***Sub-programme A - Small Scale Enterprises***

On the basis of the identified gaps in the existing assistance provided to this sector three priority areas can be distinguished:

a) Institutional Support

i) Background and justification

The effectiveness of extension services delivery is hampered by the lack of properly qualified staff in the field to perform the tasks assigned to them. Given that shortages of qualified manpower are a serious problem in all sectors and will remain for some time, there is a need to work simultaneously on two fronts. One is training of the IFS staff; the other is rationalization of administrative procedures and prioritizing tasks assigned to the field staff.

ii) Objective

To improve the effectiveness of the IFS delivery system to reach and benefit a larger group of potential small scale enterprises in urban and rural areas.

iii) Activities

- evaluation of the present cadre of IFS staff in terms of their educational background, recruitment, potential career path, against the tasks assigned to the respective posts
- design training courses for IFS staff to augment the major deficiencies (e.g. training in adult education, community development, functional literacy)
- simplify the present procedure for FAP applications to make it more accessible and understandable to the potential beneficiaries and less time consuming for processing

- introduce a monitoring system of applicants for easy follow up and evaluation (office automation)
- review the legal requirements for married women prohibiting them to act as borrowers in their own right as well as security and equity requirements

iv) Areas for technical assistance

- assistance with designing and implementation of training courses for IFS staff (training material, trainers)
- assistance in setting up monitoring and evaluation system with the help of computerized data base where it may be relevant (system analysis, training, hardware and software)

b) Supply and distribution network for production inputs

i) Background and justification

One of the major problems encountered by small scale enterprises, especially in rural areas, is the access to production inputs at a price competitive with larger producers. The larger producers are usually based in urban areas and have the advantage of an easier access to wholesale outlets. Some of them have even a direct link with suppliers in RSA and /or overseas if the price of inputs plus CCA's tariff is lower than price of similar inputs from RSA. This requires knowledge of the market as well as a large enough size of the order. The small scale sector lacks both of these prerequisites.

ii) Objective

To increase competitiveness of small producers by decreasing the cost of inputs.

iii) Activities

- carry out a survey of two or three production branches (e.g. those supported by the local preference scheme and the industrial reservation policy) in two geographical areas (with a high and low concentration of small scale enterprises) to identify sources and prices of inputs.
- carry out market survey to identify potential competitive suppliers in the region and internationally
- determine the commercial viability of using existing agencies (e.g. Twelelo) or establishing other alternative mechanisms(clearing agency, warehouses) for order collection and distribution, as well as establishing an appropriate financial system for local and international payment transactions

iv) Areas for technical assistance

- assist in setting up and conducting the sourcing and market surveys for two to three selected manufacturing activities
- assist with the feasibility study for establishing a supply agency
- based on the outcome of the surveys and the feasibility study run a pilot project to test the commercial viability of the proposed scheme

c) Technology and training for small scale enterprises

i) Background and justification

The present thrust of training seems to be in the areas of simple business administration and management. Technology aspects and development of vocational skills through traditional apprenticeships should be encouraged. The competition with RSA producers even in the rural markets is not only in price but also quality. Thus

raising standards of products even for the lower segment of the local market is important.

ii) Objective

To increase competitiveness of small scale producers through development and dissemination of appropriate technology and raising the quality standard of their products.

iii) Activities

- assessment of the present technology available/affordable to small scale enterprises in terms its impact on productivity and competitiveness
- adjust the content of training to raise the awareness about quality and standards as well as the skill levels to achieve improvements
- encourage apprenticeships through a recognized system of certification and financial reward to the provider of training

iv) Areas of technical assistance

- assist in a wider dissemination of information on availability of appropriate technology and provide special fund for training and acquisition
- assist in setting up a scheme for promoting recognized and rewarded artisanal training

4.3.2 *Sub-programme B - Medium and Large Scale Enterprises*

On the basis of identified gaps in the existing support programmes for medium and large enterprises three priority areas have been selected:

a) *Institutional support*

i) Background and justification

Policy and strategy formulation for the industrial sector as well as monitoring of impact of supportive measures such as FAP depends on a reliable and easily accessible information data base. Collection of information about establishments such as registration, licenses, allocation of FAP, production, employment and trade can benefit from sharing basic sets of data which could be made accessible to identified users. At the present, most of the information is collected by various departments in the Ministry of Commerce and Industry and Central Statistics Office without the possibility of making cross references. A computerized information system may not only save duplication of work but also facilitate analysis of the industrial sector's performance. There should also be possibilities to cross reference data on the industrial data base with information on work and residence permits provided that compatible system is set up in the Ministry of Labour and Home Affairs.

ii) Objective

To improve the Ministry of Commerce and Industry's capacity for assisting and monitoring industrial sector development.

iii) Activities

- analysis of the existent information collection systems
- determine the end use of data and identify potential users, and devise a new system accordingly
- determine the most appropriate hardware and network facilities
- install the system and train local personnel

iv) Areas of technical assistance

Technical assistance may be required for implementation of all the above activities.

b) In-service training

i) Background and justification

Although the progress of localization in the private sector has proportionately kept pace with the growth of the sector the number of expatriate personnel in managerial and technical posts has increased. Localization of these key positions is important to achieve the development goals of self reliance and national self determination. The experience shows that development of a competent management and technical cadre depends on the quality, structure and outside recognition of a company's in-service training. Investment in training is a long term proposition and to many enterprises, has a high risk component. In the absence of locally available relevant training institutions/programmes sending employees abroad is costly. Even courses provided by BOCCIM are 50% subsidized. Although there is a provision for reimbursement of training under FAP it seems that this incentive has been relatively little used. With the increasing pressure for competitiveness introduction of new technologies will be inevitable and with that need for increasing in-service training.

ii) Objective

To increase capacity of the private sector to plan and implement internal training programmes. This will lead to an improvement in productivity as well as contribute to the achievement of localization objective.

iv) Activities

- assess the existing training programmes of a representative sample of medium and large enterprises in the major manufacturing branches and identify present bottlenecks
- assess the costs of viable options for training of middle and high level managerial and technical personnel (local, regional, international)
- devise policy and management framework for cooperation and cost sharing between the private and public sector

v) Areas of technical assistance

Technical assistance coordinated with BOCCIM will be required for the implementation of all the above activities. Assistance in the immediate future should concentrate on provision of scholarships and arrangement of placements for in-service training (apprenticeships) with identified companies abroad.

c) Productivity improvements

i) Background and justification

The productivity issue has been topical in Botswana for some time now. However, little concrete comparative evidence has been provided for individual industrial branches. Assessment of causes for differences in productivity among compatible local, regional and international firms may reveal common and /or branch specific problems requiring priority attention.

ii) Objective

To establish base line data for comparison of productivity levels in the local, regional and international context. Analysis of the findings should reveal causes and suggest remedial measures.

iii) Activities

- conduct survey on productivity levels of representative firms from major industrial branches in Botswana
- make comparison with comparable firms in the region and selected international producers
- analyze findings and suggest remedial measures
- establish a data base for updating the relevant information for future monitoring

v) Areas of technical assistance

Implementation of the above activities will require technical assistance in close cooperation with the private sector.

4.3.3 *Sub-programme C - Export Promotion*

It is expected that implementation of sub-programmes A and B will have a direct and indirect effect on this sub-programme. There are two identified areas addressing directly the objective of export promotion which seem to be inadequately covered by the existing support programmes.

a) *Competitiveness*

i) Background and justification

The competitiveness of Botswana's producers in the regional and international markets is a vital prerequisite for industrial growth, given the limited size of the domestic market. Thus it is important to establish and monitor base line data in respect of products prices, wages, prices of inputs, incentives for foreign investment, exchange rate policies etc. The on-going World Bank study on Opportunities for Industrial Development in Botswana will no doubt provide a valuable input.

ii) Objective

To establish parameters for assessment and monitoring of Botswana's production sector's competitiveness, including the macro economic environment. This will help to establish and secure Botswana's position on regional and international markets.

iii) Activities

- establish measurable criteria for determining competitiveness of individual industrial branches as well as the macro economic environment
- assess the current situation
- establish sustainable monitoring system

iv) Areas of technical assistance

Implementation of all the above activities will require technical assistance as well as close cooperation with the relevant Government departments, the Bank of Botswana, the private sector, the World Bank and SADCC.

b) *Foreign investment promotion*

i) Background and justification

Promotion of foreign private investment either in the form of joint ventures and/or fully foreign owned companies should be encouraged. Foreign private investment has often served as a vehicle for technology and know-how transfer as well as providing an access to export markets. The present assistance to TIPA concentrates on improving domestic conditions for foreign investment. It seems that relatively little support has been provided for international promotion. Establishment 6 trade mission offices will require adequate and competent staff to perform the

envisaged tasks. In addition, information material and use of available international media for promotion ought to be fully exploited.

ii) Objective

The objective is to strengthen and widen the range of international publicity to improve chances for attracting foreign investment to Botswana.

iii) Activities

- develop and disseminate information of Botswana investment opportunities in relevant international circles and fora
- increase Botswana's participation in international trade fairs and investment promotion meetings
- provide adequate training for trade missions' staff

iv) Areas of technical assistance

Technical assistance will be required in the implementation of all the activities in close cooperation with TIPA and other relevant Government agencies.

POLICY & STRATEGY

Increasing employment and income earning opportunities through diversification of production base in rural and urban areas & export promotion

PROGRAMME APPROACH ADDRESSING COMPONENTS OF AN INTEGRATED PRODUCTION SYSTEM

- *inputs (raw materials,intermediate and capital goods)*
- *human resources (education and training)*
- *physical capital (technology and know-how)*
- *infrastructure (land, utilities, communication)*
- *distribution and marketing*
- *investment finance (grants, loans, equity, subsidies)*

SUB-PROGRAMMES

SUB-PROGRAMME A
Small Scale Enterprises

SUB-PROGRAMME B
Medium & Large Scale Enterprises

SUB-PROGRAMME C
Export Promotion

IDENTIFIED PRIORITIES

SUB-PROGRAMME A
Improve IFS delivery
Decrease cost of inputs
Improve quality & standards

SUB-PROGRAMME B
Improve MCI management capacity
Increase localization
Improve productivity

SUB-PROGRAMME C
Monitoring competitiveness
International publicity

COMPONENTS OF SUB-PROGRAMMES

SUB-PROGRAMME A
Institutional support
Supply and distribution promotion
network for inputs
Technology and training

SUB-PROGRAMME B
Institutional support
In-service training

Productivity improvements

SUB-PROGRAMME C
Competitiveness
Foreign investment

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Annex Tables

Table I	Share in total manufacturing (constant 1980 US $)
Table IIa + b	Average annual growth rate of output (constant US $)
Table IIIa + b	Average annual growth rate of MVA (constant 1980 US $)
Table IV	Averages of wages, MVA, gross output and gross profit (constant 1980 US $)
Table V a + b	Average annual growth rate of the number of employees

BOTSWANA

Unless otherwise indicated, coverage 1975-1990

Variable	Unit of measure	Sources	REG estimates
Area	thousand sq. km.	UN Demographic Yearbook	
Population and growth	thousands, per cent	UN Monthly Bulletin	
Population density	persons/sq. km.		
Exchange rate	natl currency/US$	IFS	
Consumer price index	1980 = 100	IFS	
Industrial statistics	see below	ILO Yearbook of Labour Stat., Natl Accts of Botswana 1987/88, UNSO, UN Yearbook of Ind. Stat.	
Trade in manufactures	million US $	Central Statistics Office, Botswana	

Estimates

Firms: 1975-79; Employees: 1975-77; Current MVA & output: 1975-79,89,90; Current salaries: 1975-81,89,90; Constant MVA & output: 1975-79,81-90; Constant salaries: 1975-1990

Code	Branch	Firms	Employees	Current			Constant 1980		
				Salaries	MVA	Output	Salaries	MVA	Output
		(Numbers)		(Monetary variables in mill natl currency & US$)					
311	Food								
313	Bev.								
314	Tobacco	branch not reported							
321	Textiles								
322	Clothing	included in 322							
323	Leather				82,88				
324	Shoes	included in 323							
331	Wood								
332	Furniture	included in 331							
341	Paper								
342	Printing	included in 341							
351	Ind. chem.								
352	Othr chem	included in 351							
353	Petr.ref.	branch not reported							
354	Othr petr	branch not reported							
355	Rubber	included in 351							
356	Plastics	included in 351							
361	China	branch not reported							
362	Glass	branch not reported							
369	Non-metall.	branch not reported							
371	Iron/steel	branch not reported							
372	Non-ferr.	branch not reported							
381	Metal prod.				83,86				
382	Machinery	included in 381							
383	Elec mach	included in 381							
384	Trans.eq.	included in 381							
385	Scientific	branch not reported							
390	Misc.								

Country	Year	Annual average exchange rate (natl curr/US$)	Consumer price index (1980 = 100)	Real exchange rate (natl curr/US$)	Population (thousands)	Population density (per sq km)
Botswana	1975	0.73190	57.1	0.837006	680	1.17
Botswana	1976	0.86960	63.8	0.941839	710	1.22
Botswana	1977	0.84150	72.2	0.857817	740	1.27
Botswana	1978	0.82820	78.8	0.832404	760	1.31
Botswana	1979	0.81460	88.0	0.815526	790	1.36
Botswana	1980	0.77690	100.0	0.776900	890	1.53
Botswana	1981	0.83310	116.4	0.789441	940	1.62
Botswana	1982	1.02170	129.4	0.924583	970	1.67
Botswana	1983	1.09630	143.0	0.926872	1010	1.74
Botswana	1984	1.28390	155.2	1.043169	1040	1.79
Botswana	1985	1.88820	167.8	1.469600	1080	1.86
Botswana	1986	1.86780	184.6	1.345706	1120	1.93
Botswana	1987	1.67790	202.7	1.142330	1170	2.01
Botswana	1988	1.81590	219.6	1.186620	1210	2.08
Botswana	1989	2.01250	245.0	1.235429	1260	2.17
Botswana	1990	1.86010	272.9	1.081026	1290	2.22

Source: RBG Database, PPD/IPP

Table I

B O T S W A N A

Branch Year	Share (%) in total		Share(%) in Total cons 1980 manufacturing			Share (%) in related 2-digit ISIC				
	Firms	Employees	Wages	MVA	Output	Firms	Employees	Wages	MVA	Output
311 Food products										
1975	13.54	48.36	44.61	41.85	55.06	76.47	89.01	88.52	60.43	81.03
1976	12.62	49.33	44.18	37.74	51.75	76.47	89.78	89.62	60.27	78.51
1977	12.26	43.33	37.96	41.10	54.09	76.47	87.75	87.27	61.32	81.39
1978	12.04	42.48	35.11	36.46	56.54	76.47	87.78	86.81	62.57	82.64
1979	10.32	40.74	33.82	34.34	51.79	76.47	88.71	88.15	61.60	79.46
1980	9.29	38.54	31.25	36.76	48.15	76.47	88.15	87.09	76.47	78.90
1981	14.13	37.96	28.70	29.55	47.67	92.86	90.29	87.38	59.76	77.95
1982	9.76	30.77	36.92	34.94	44.33	83.33	84.69	84.16	61.61	76.31
1983	8.24	25.62	35.43	33.90	45.78	82.14	86.22	86.04	64.72	78.62
1984	9.69	30.45	35.72	34.89	40.56	72.09	85.43	85.23	63.33	72.64
1985	13.28	30.80	37.63	29.77	37.20	81.73	87.46	87.42	57.67	63.86
1986	10.66	28.39	34.88	36.42	37.78	83.64	84.95	84.80	65.37	66.44
1987	10.73	21.11	23.42	42.03	36.13	78.99	79.20	78.32	67.49	70.01
1988	15.94	20.90	27.63	29.10	27.29	87.93	78.87	78.08	55.02	66.21
1989	15.79	21.62	28.29	21.91	22.61	90.00	80.00	76.81	46.31	58.41
1990	16.45	21.40	28.04	16.71	19.29	87.93	80.00	77.04	37.79	51.74
313 Beverages										
1975	4.17	5.97	5.78	27.40	12.89	23.53	10.99	11.48	39.57	18.97
1976	3.88	5.61	5.11	24.87	14.16	23.53	10.22	10.38	39.73	21.49
1977	3.77	6.05	5.53	25.92	12.37	23.53	12.25	12.71	38.68	18.61
1978	3.70	5.91	5.34	21.81	11.88	23.53	12.22	13.19	37.43	17.36
1979	3.17	5.19	4.55	21.41	13.40	23.53	11.29	11.85	38.40	20.55
1980	2.86	5.18	4.63	11.31	12.88	23.53	11.85	12.91	23.53	21.10
1981	1.09	4.08	4.15	19.88	13.48	7.14	9.71	12.62	40.21	22.05
1982	1.95	5.56	6.95	21.78	13.77	16.67	15.31	15.84	38.39	23.70
1983	1.79	4.09	5.75	18.48	12.45	17.86	13.78	13.96	35.28	21.38
1984	3.75	5.19	6.20	20.20	15.27	27.91	14.57	14.78	36.67	27.36
1985	2.97	4.42	5.41	21.86	21.06	18.27	12.54	12.58	42.33	36.14
1986	2.09	5.03	6.25	19.29	19.08	16.36	15.05	15.20	34.61	33.56
1987	2.85	5.54	6.49	20.26	15.47	21.01	20.80	21.69	32.53	29.99
1988	2.19	5.60	7.76	23.78	13.93	12.07	21.13	21.92	44.98	33.79
1989	1.75	5.40	8.54	25.39	16.10	10.00	20.00	23.19	53.69	41.60
1990	2.26	5.35	8.36	27.50	17.99	12.07	20.00	22.96	62.19	48.26

Continued

Table 1 (cont.)

BOTSWANA

Branch Year	Share (%) in total		Share(%) in Total cons 1980 manufacturing			Share (%) in related 2-digit ISIC				
	Firms	Employees	Wages	MVA	Output	Firms	Employees	Wages	MVA	Output
321 Textiles, wearing apparel other than footwear										
1975	26.04	17.69	23.84	11.24	11.58	75.76	82.25	91.88	83.30	80.93
1976	25.24	17.03	22.85	13.70	11.55	76.47	82.17	92.10	86.03	81.11
1977	25.47	18.72	23.71	13.10	14.56	75.00	82.05	91.16	86.69	86.36
1978	25.00	18.66	24.67	15.94	9.02	75.00	82.02	91.87	87.26	79.78
1979	21.43	17.48	24.30	12.68	11.75	72.97	85.68	94.00	88.00	83.97
1980	19.29	12.55	16.09	15.89	12.04	64.29	66.41	83.21	86.55	86.15
1981	21.74	16.75	25.08	11.16	10.12	71.43	79.99	88.85	77.99	76.63
1982	22.93	21.97	16.08	9.92	11.21	82.46	90.66	93.43	97.90	87.41
1983	17.20	17.13	13.46	11.89	11.86	82.76	88.64	84.78	95.19	88.85
1984	17.50	19.57	15.19	6.30	12.32	96.55	94.77	95.01	96.62	95.31
1985	13.91	15.58	9.87	6.37	7.98	71.77	83.64	90.20	98.72	96.04
1986	16.34	11.47	6.88	8.24	7.44	79.66	75.35	76.23	98.37	95.09
1987	15.35	16.73	11.26	7.44	11.61	78.39	82.99	88.71	94.75	91.21
1988	19.38	18.10	10.65	5.95	13.29	81.58	81.07	91.44	94.71	95.55
1989	22.81	21.17	11.87	5.09	11.78	82.28	88.68	91.16	92.64	94.03
1990	23.23	17.28	11.92	5.25	12.20	80.90	87.50	91.73	92.92	93.95
323 Leather, leather substitutes and footwear										
1975	8.33	3.82	2.11	2.25	2.73	24.24	17.75	8.12	16.70	19.07
1976	7.77	3.70	1.96	2.25	2.69	23.53	17.83	7.90	14.11	18.89
1977	8.49	4.10	2.30	2.01	2.30	25.00	17.95	8.84	13.31	13.67
1978	8.33	4.09	2.18	2.33	2.29	25.00	17.98	8.13	12.74	20.27
1979	7.94	2.92	1.55	1.73	2.25	27.03	14.32	6.00	12.00	16.06
1980	10.71	6.35	3.24	2.47	1.94	35.71	33.59	16.74	13.45	13.85
1981	8.70	4.19	3.15	3.17	3.09	28.57	20.01	11.15	22.14	23.37
1982	4.88	2.26	1.13	0.20	1.61	17.54	9.34	6.57	1.97	12.59
1983	3.58	2.19	2.42	0.60	1.49	17.24	11.36	15.22	4.81	11.18
1984	0.62	1.08	0.80	0.21	0.61	3.45	5.23	4.99	3.16	4.69
1985	5.47	3.05	1.07	0.08	0.33	28.23	16.36	9.80	1.28	3.96
1986	4.17	3.75	2.14	0.14	0.38	20.34	24.65	23.77	1.63	4.91
1987	4.23	3.43	1.43	0.41	1.12	21.61	17.01	11.29	5.25	8.79
1988	4.38	4.23	1.00	0.33	0.62	18.42	18.93	8.56	5.29	4.45
1989	4.91	2.70	1.15	0.40	0.75	17.72	11.32	8.84	7.36	5.97
1990	5.48	2.47	1.08	0.40	0.79	19.10	12.50	8.29	7.08	6.05

Continued

Table I (cont.)

B O T S W A N A

Year	Share (%) in total		Share(%) in Total cons 1980 manufacturing			Share (%) in related 2-digit ISIC				
	Firms	Employees	Wages	MVA	Output	Firms	Employees	Wages	MVA	Output
Branch										
331 Wood and cork products incl. furniture										
1975	10.42	3.77	3.28	1.93	2.45	100.00	100.00	100.00	100.00	100.00
1976	10.68	3.53	4.08	1.76	2.29	100.00	100.00	100.00	100.00	100.00
1977	10.38	3.78	4.37	1.63	2.06	100.00	100.00	100.00	100.00	100.00
1978	10.19	3.69	4.32	1.93	2.11	100.00	100.00	100.00	100.00	100.00
1979	9.52	5.50	6.19	2.20	1.85	100.00	100.00	100.00	100.00	100.00
1980	8.57	4.59	5.44	1.76	1.77	100.00	100.00	100.00	100.00	100.00
1981	8.70	5.73	1.59	1.42	1.37	100.00	100.00	100.00	100.00	100.00
1982	5.37	1.93	1.49	0.79	0.70	100.00	100.00	100.00	100.00	100.00
1983	5.73	3.28	2.20	1.09	1.17	100.00	100.00	100.00	100.00	100.00
1984	9.69	2.92	2.01	1.28	2.03	100.00	100.00	100.00	100.00	100.00
1985	6.25	3.91	2.12	1.99	2.03	100.00	100.00	100.00	100.00	100.00
1986	6.60	6.95	4.11	1.94	2.32	100.00	100.00	100.00	100.00	100.00
1987	6.59	6.91	5.38	1.78	2.61	100.00	100.00	100.00	100.00	100.00
1988	6.88	6.41	3.64	3.10	3.22	100.00	100.00	100.00	100.00	100.00
1989	7.72	4.50	4.32	4.06	4.14	100.00	100.00	100.00	100.00	100.00
1990	8.06	5.76	4.37	4.69	5.30	100.00	100.00	100.00	100.00	100.00
341 Paper, printing and publishing										
1975	2.08	0.39	0.68	0.78	1.06	100.00	100.00	100.00	100.00	100.00
1976	2.91	0.47	0.76	0.97	1.20	100.00	100.00	100.00	100.00	100.00
1977	1.89	0.43	0.73	0.83	1.14	100.00	100.00	100.00	100.00	100.00
1978	1.85	0.36	0.47	1.08	1.21	100.00	100.00	100.00	100.00	100.00
1979	6.35	1.79	2.69	0.81	1.01	100.00	100.00	100.00	100.00	100.00
1980	6.43	1.96	4.16	2.11	1.94	100.00	100.00	100.00	100.00	100.00
1981	5.43	2.09	3.83	1.82	1.15	100.00	100.00	100.00	100.00	100.00
1982	9.27	2.15	3.33	0.93	1.25	100.00	100.00	100.00	100.00	100.00
1983	6.45	5.10	4.09	2.55	2.11	100.00	100.00	100.00	100.00	100.00
1984	5.31	3.39	2.55	3.04	2.75	100.00	100.00	100.00	100.00	100.00
1985	5.62	5.24	5.73	4.64	4.04	100.00	100.00	100.00	100.00	100.00
1986	6.60	2.64	3.08	3.00	2.71	100.00	100.00	100.00	100.00	100.00
1987	6.10	5.23	7.37	3.25	2.41	100.00	100.00	100.00	100.00	100.00
1988	5.94	5.09	5.51	3.30	5.02	100.00	100.00	100.00	100.00	100.00
1989	7.02	4.50	6.44	3.79	5.12	100.00	100.00	100.00	100.00	100.00
1990	5.81	6.17	6.47	3.99	5.11	100.00	100.00	100.00	100.00	100.00

Continued

Table I (cont.)
B O T S W A N A

Branch / Year	Share (%) in total		Share(%) in Total cons 1980 manufacturing			Share (%) in related 2-digit ISIC				
	Firms	Employees	Wages	MVA	Output	Firms	Employees	Wages	MVA	Output
351 Ind. and non-ind. chemicals, rubber, plastics										
1975	2.08	0.52	0.34	3.03	2.39	100.00	100.00	100.00	100.00	100.00
1976	1.94	0.58	0.43	3.15	2.17	100.00	100.00	100.00	100.00	100.00
1977	1.89	0.67	0.61	2.07	1.51	100.00	100.00	100.00	100.00	100.00
1978	1.85	0.67	0.59	2.40	1.69	100.00	100.00	100.00	100.00	100.00
1979	1.59	0.58	0.51	1.03	0.98	100.00	100.00	100.00	100.00	100.00
1980	1.43	0.56	0.46	2.11	1.52	100.00	100.00	100.00	100.00	100.00
1981	5.98	2.32	1.76	1.58	1.60	100.00	100.00	100.00	100.00	100.00
1982	2.44	1.55	2.57	2.25	2.76	100.00	100.00	100.00	100.00	100.00
1983	6.09	4.35	3.70	0.61	3.42	100.00	100.00	100.00	100.00	100.00
1984	5.94	4.17	4.68	3.52	4.48	100.00	100.00	100.00	100.00	100.00
1985	4.38	3.03	4.40	4.90	4.77	100.00	100.00	100.00	100.00	100.00
1986	4.63	3.59	4.87	4.92	5.31	100.00	100.00	100.00	100.00	100.00
1987	5.51	2.69	3.00	5.73	7.02	100.00	100.00	100.00	100.00	100.00
1988	7.50	3.77	3.74	8.42	11.25	100.00	100.00	100.00	100.00	100.00
1989	7.02	3.18	4.06	9.97	11.63	100.00	100.00	100.00	100.00	100.00
1990	6.77	4.12	4.99	11.38	12.39	100.00	100.00	100.00	100.00	100.00
381 Metal products, machinery and equipment										
1975	14.58	7.17	6.36	3.41	3.54	100.00	100.00	100.00	100.00	100.00
1976	14.56	6.99	6.97	3.15	3.76	100.00	100.00	100.00	100.00	100.00
1977	14.15	7.83	7.49	2.56	3.29	100.00	100.00	100.00	100.00	100.00
1978	13.89	7.94	6.99	2.54	3.43	100.00	100.00	100.00	100.00	100.00
1979	19.05	9.17	6.83	0.97	3.69	100.00	100.00	100.00	100.00	100.00
1980	17.86	10.38	9.72	-1.07	4.04	100.00	100.00	100.00	0.00	100.00
1981	11.41	7.06	5.60	2.17	2.28	100.00	100.00	100.00	100.00	100.00
1982	18.05	15.78	13.61	3.26	2.57	100.00	100.00	100.00	100.00	100.00
1983	17.20	18.49	18.27	5.32	3.69	100.00	100.00	100.00	100.00	100.00
1984	21.25	20.28	23.82	13.35	5.09	100.00	100.00	100.00	100.00	100.00
1985	16.88	20.11	26.22	14.24	5.38	100.00	100.00	100.00	100.00	100.00
1986	15.87	20.33	25.82	11.00	6.28	100.00	100.00	100.00	100.00	100.00
1987	16.34	17.35	28.12	8.87	6.04	100.00	100.00	100.00	100.00	100.00
1988	15.00	16.47	23.86	11.36	7.29	100.00	100.00	100.00	100.00	100.00
1989	14.74	15.76	21.24	13.70	8.17	100.00	100.00	100.00	100.00	100.00
1990	13.87	18.52	21.17	14.39	8.58	100.00	100.00	100.00	100.00	100.00

Continued

Table I (cont.)

B O T S W A N A

Branch Year	Share (%) in total		Share(%) in Total cons 1980 manufacturing			Share (%) in related 2-digit ISIC				
	Firms	Employees	Wages	MVA	Output	Firms	Employees	Wages	MVA	Output
390 Misc. manufacturing not elsewhere specified										
1975	18.75	12.31	12.88	8.09	8.28	100.00	100.00	100.00	100.00	100.00
1976	20.39	12.75	13.76	12.43	10.44	100.00	100.00	100.00	100.00	100.00
1977	21.70	15.08	17.32	10.77	8.69	100.00	100.00	100.00	100.00	100.00
1978	23.15	16.19	20.26	15.49	11.84	100.00	100.00	100.00	100.00	100.00
1979	20.63	16.64	19.56	24.81	13.28	100.00	100.00	100.00	100.00	100.00
1980	23.57	19.89	25.00	28.63	15.74	100.00	100.00	100.00	100.00	100.00
1981	22.83	19.82	26.06	29.26	19.24	100.00	100.00	100.00	100.00	100.00
1982	25.37	18.02	17.93	25.96	21.81	100.00	100.00	100.00	100.00	100.00
1983	33.69	19.75	14.65	25.55	18.02	100.00	100.00	100.00	100.00	100.00
1984	26.25	12.95	9.05	17.21	16.89	100.00	100.00	100.00	100.00	100.00
1985	31.25	13.85	7.53	16.12	17.21	100.00	100.00	100.00	100.00	100.00
1986	33.02	17.85	11.96	15.06	18.71	100.00	100.00	100.00	100.00	100.00
1987	32.28	21.00	13.51	10.23	17.57	100.00	100.00	100.00	100.00	100.00
1988	22.81	19.44	16.21	14.63	18.09	100.00	100.00	100.00	100.00	100.00
1989	18.25	21.17	14.10	15.69	19.70	100.00	100.00	100.00	100.00	100.00
1990	18.06	18.93	13.60	15.68	18.36	100.00	100.00	100.00	100.00	100.00
3 Total manufacturing										
1975	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1976	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1977	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1978	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1979	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1980	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1981	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1982	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1983	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1984	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1985	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1986	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1987	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1988	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1989	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00
1990	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00

Source: REG Database, PPD/IPP

Table IIa. **BOTSWANA** Annaul average growth rate of output in constant 1980 US $ at the 3-digit ISIC branch level as of 1980

Year	Food	Beverages	Tobacco	Textiles	Wearing apparel	Leather	Leather footwear	Wood	Furniture	Paper	Printing	Industrial chemicals	Non-ind. chemicals	Petro. refining
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	24.9	32.0	0.0	6.0	0.0	101.0	0.0	-1.9	0.0	-25.3	0.0	33.2	0.0	0.0
1982	16.2	25.2	0.0	16.9	0.0	10.6	0.0	-23.5	0.0	-2.6	0.0	63.2	0.0	0.0
1983	16.9	17.6	0.0	18.3	0.0	9.1	0.0	3.7	0.0	22.4	0.0	55.9	0.0	0.0
1984	6.2	15.7	0.0	11.5	0.0	-17.1	0.0	14.9	0.0	21.0	0.0	45.3	0.0	0.0
1985	5.5	22.5	0.0	2.3	0.0	-22.1	0.0	14.2	0.0	28.7	0.0	39.7	0.0	0.0
1986	7.6	19.6	0.0	3.4	0.0	-14.5	0.0	17.2	0.0	18.4	0.0	38.0	0.0	0.0
1987	7.9	15.4	0.0	11.9	0.0	4.0	0.0	18.9	0.0	16.0	0.0	40.0	0.0	0.0
1988	6.6	15.6	0.0	15.9	0.0	-0.7	0.0	23.4	0.0	28.9	0.0	47.0	0.0	0.0
1989	3.8	15.8	0.0	12.7	0.0	1.6	0.0	24.2	0.0	25.8	0.0	41.6	0.0	0.0
1990	1.9	15.5	0.0	11.8	0.0	2.0	0.0	24.6	0.0	23.0	0.0	37.8	0.0	0.0

Year	Misc. refining	Rubber	Plastic	China	Glass	Misc. non-metallics	Iron and steel	Non-ferrous metals	Metal products	Machinery	Electrical machinery	Transp. equip.	Scientific, professional	Misc.	Total
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-29.0	0.0	0.0	0.0	0.0	54.2	26.1
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.4	0.0	0.0	0.0	0.0	42.5	21.1
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0	24.4	18.9
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	12.8	10.9
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	0.0	0.0	0.0	0.0	13.1	11.1
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	15.3	12.0
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.1	0.0	0.0	0.0	0.0	14.2	12.4
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	16.5	14.5
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1	0.0	0.0	0.0	0.0	15.8	12.9
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0	13.4	11.7

Source: REG Database, PPD/IPP

Table II b **B O T S W A N A** Annaul average growth rate of output in constant 1980 US $ at the 3-digit ISIC branch level as of 1985

Year	Food	Beverages	Tobacco	Textiles	Wearing apparel	Leather	Leather footwear	Wood	Furniture	Paper	Printing	Industrial chemicals	Non-ind. chemicals	Petro. refining
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	18.6	5.9	0.0	8.9	0.0	36.5	0.0	33.4	0.0	-21.8	0.0	30.0	0.0	0.0
1987	14.3	-0.6	0.0	39.9	0.0	113.9	0.0	31.7	0.0	-10.4	0.0	40.7	0.0	0.0
1988	8.5	4.9	0.0	42.6	0.0	48.6	0.0	40.4	0.0	29.4	0.0	60.2	0.0	0.0
1989	1.8	7.9	0.0	27.1	0.0	41.6	0.0	37.8	0.0	22.3	0.0	44.1	0.0	0.0
1990	-1.6	8.8	0.0	22.2	0.0	33.6	0.0	36.1	0.0	17.6	0.0	35.9	0.0	0.0

Year	Misc. refining	Rubber	Plastic	China	Glass	Misc. non-metallics	Iron and steel	Non-ferrous metals	Metal products	Machinery	Electrical machinery	Transp. equip.	Scientific, professional	Misc.	Total
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.2	0.0	0.0	0.0	0.0	27.0	16.8
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.9	0.0	0.0	0.0	0.0	17.2	16.0
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.1	0.0	0.0	0.0	0.0	22.4	20.3
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0	19.3	15.3
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	13.7	12.3

Source: RBG Database, PPD/IPP

Table IIIa. B O T S W A N A Annaul average growth rate of MVA in constant 1980 US $ at the 3-digit ISIC branch level as of 1980

Year	Food	Beverages	Tobacco	Textiles	Wearing apparel	Leather	Leather footwear	Wood	Furniture	Paper	Printing	Industrial chemicals	Non-ind. chemicals	Petro. refining
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	24.0	171.1	0.0	8.3	0.0	97.8	0.0	25.0	0.0	32.5	0.0	15.6	0.0	0.0
1982	40.0	99.3	0.0	13.4	0.0	-59.2	0.0	-4.0	0.0	-4.7	0.0	48.1	0.0	0.0
1983	23.8	49.8	0.0	15.5	0.0	-20.6	0.0	8.6	0.0	35.4	0.0	-15.8	0.0	0.0
1984	17.3	37.4	0.0	-5.7	0.0	-36.1	0.0	9.8	0.0	30.2	0.0	35.0	0.0	0.0
1985	10.0	30.9	0.0	-4.5	0.0	-41.8	0.0	17.6	0.0	34.3	0.0	35.8	0.0	0.0
1986	17.2	28.3	0.0	5.2	0.0	-27.6	0.0	19.4	0.0	24.4	0.0	35.1	0.0	0.0
1987	20.7	28.7	0.0	6.2	0.0	-8.3	0.0	18.6	0.0	25.9	0.0	36.5	0.0	0.0
1988	13.5	28.2	0.0	3.3	0.0	-9.1	0.0	25.4	0.0	23.5	0.0	38.9	0.0	0.0
1989	9.9	27.4	0.0	2.6	0.0	-4.8	0.0	27.8	0.0	24.3	0.0	38.3	0.0	0.0
1990	6.1	25.5	0.0	2.8	0.0	-4.3	0.0	26.7	0.0	22.3	0.0	35.9	0.0	0.0

Year	Misc. refining	Rubber	Plastic	China	Glass	Misc. non-metallics	Iron and steel	Non-ferrous metals	Metal products	Machinery	Electrical machinery	Transp. equip.	Scientific, professional	Misc.	Total
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.6	54.2
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.7	43.6
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5	27.2
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	18.9
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	14.7
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	17.4
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	18.4
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	16.8
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	16.4
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	14.8

Source: RSG Database, PPD/IPP

Table III b. **B O T S W A N A** Annaul average growth rate of MVA in constant 1980 US $ at the 3-digit ISIC branch level as of 1985

Year	Food	Beverages	Tobacco	Textiles	Wearing apparel	Leather	Leather footwear	Wood	Furniture	Paper	Printing	Industrial chemicals	Non-ind. chemicals	Petro. refining
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	61.1	16.2	0.0	70.3	0.0	116.7	0.0	28.5	0.0	-14.9	0.0	32.1	0.0	0.0
1987	52.2	23.3	0.0	38.5	0.0	185.8	0.0	21.0	0.0	7.2	0.0	38.5	0.0	0.0
1988	19.5	23.8	0.0	17.7	0.0	91.3	0.0	39.5	0.0	7.5	0.0	44.2	0.0	0.0
1989	9.9	23.2	0.0	12.2	0.0	76.3	0.0	41.8	0.0	12.8	0.0	41.6	0.0	0.0
1990	2.4	20.3	0.0	10.5	0.0	57.4	0.0	36.4	0.0	11.5	0.0	36.0	0.0	0.0

Year	Misc. refining	Rubber	Plastic	China	Glass	Misc. non-metallics	Iron and steel	Non-ferrous metals	Metal products	Machinery	Electrical machinery	Transp. equip.	Scientific, professional	Misc.	Total
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	23.0	31.7
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	2.0	28.1
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0	16.6	20.4
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	17.8	18.6
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0	0.0	0.0	14.3	14.9

Source: RSG Database, PPD/IPP

Table IV. *B O T S W A N A*

Branch		Averages per employee in thousand constant 1980 US dollars				Gross profit
Year	Employees (Number)	Wages and salaries	Manufacturing value added	Gross output	Gross profit	(thous. cons. 1980 US dollars)
311 Food products						
1975	1862	2.717	8.97	47.22	6.257	11651.000
1976	2109	2.478	8.12	39.59	5.644	11904.000
1977	1798	2.212	11.25	54.82	9.039	16253.000
1978	1889	2.017	8.21	54.89	6.194	11700.000
1979	2231	1.887	10.77	52.65	8.884	19821.000
1980	2143	1.622	6.25	34.36	4.627	9915.000
1981	2436	1.463	6.81	37.74	5.351	13035.000
1982	2201	2.269	11.93	45.16	9.657	21256.000
1983	2510	2.308	10.12	46.91	7.816	19618.000
1984	2902	2.608	8.74	32.28	6.134	17801.000
1985	3062	2.980	7.04	31.39	4.057	12424.000
1986	3465	2.901	10.02	32.91	7.116	24657.000
1987	3126	2.602	15.97	40.18	13.367	41785.000
1988	3456	3.304	10.63	35.56	7.330	25333.000
1989	4800	2.389	6.54	21.54	4.154	19941.000
1990	5200	2.102	4.66	17.09	2.556	13292.000
313 Beverages						
1975	230	2.852	47.57	89.52	44.713	10284.000
1976	240	2.521	47.04	95.21	44.521	10685.000
1977	251	2.307	50.84	89.80	48.530	12181.000
1978	263	2.202	35.29	82.81	33.084	8701.000
1979	284	1.993	52.75	106.97	50.754	14414.000
1980	288	1.788	14.31	68.37	12.517	3605.000
1981	262	1.966	42.63	99.24	40.668	10655.000
1982	398	2.362	41.11	77.56	38.744	15420.000
1983	401	2.344	34.54	79.85	32.195	12910.000
1984	495	2.653	29.68	71.27	27.024	13377.000
1985	439	2.991	36.04	123.92	33.046	14507.000
1986	614	2.935	29.93	93.81	27.000	16578.000
1987	821	2.744	29.31	65.53	26.562	21807.000
1988	926	3.461	32.44	67.73	28.979	26835.000
1989	1200	2.885	30.34	61.36	27.457	32946.000
1990	1300	2.505	30.66	63.76	28.156	36603.000

Continued

Table IV. *B O T S W A N A*
(cont.)

Branch / Year	Employees (Number)	Averages per employee in thousand constant 1980 US dollars: Wages and salaries	Manufacturing value added	Gross output	Gross profit	Gross profit (thous. cons. 1980 US dollars)
321 Textiles, wearing apparel other than footwear						
1975	681	3.969	6.59	27.17	2.624	1787.000
1976	728	3.713	8.54	25.60	4.831	3517.000
1977	777	3.197	8.30	34.14	5.104	3966.000
1978	830	3.225	8.17	19.92	4.943	4103.000
1979	957	3.161	9.27	27.86	6.108	5845.000
1980	698	2.563	8.30	26.38	5.732	4001.000
1981	1075	2.898	5.83	18.15	2.935	3155.000
1982	1572	1.384	4.74	15.99	3.356	5275.000
1983	1678	1.312	5.31	18.18	3.998	6709.000
1984	1865	1.725	2.46	15.26	0.730	1362.000
1985	1549	1.546	2.98	13.31	1.431	2216.000
1986	1400	1.416	5.61	16.04	4.191	5868.000
1987	2478	1.579	3.57	16.28	1.988	4927.000
1988	2994	1.470	2.51	19.99	1.041	3118.000
1989	4700	1.024	1.55	11.46	0.529	2486.000
1990	4200	1.106	1.81	13.38	0.705	2963.000
323 Leather, leather substitutes and footwear						
1975	147	1.626	6.12	29.66	4.497	661.000
1976	158	1.468	6.46	27.47	4.987	788.000
1977	170	1.418	5.82	24.71	4.406	749.000
1978	182	1.302	5.44	23.08	4.137	753.000
1979	160	1.206	7.56	31.88	6.356	1017.000
1980	353	1.020	2.55	8.39	1.530	540.000
1981	269	1.454	6.62	22.12	5.164	1389.000
1982	162	0.944	0.93	22.35	-0.019	-3.000
1983	215	1.837	2.09	17.86	0.256	55.000
1984	103	1.641	1.46	13.59	-0.184	-19.000
1985	303	0.858	0.20	2.81	-0.660	-200.000
1986	458	1.349	0.28	2.53	-1.066	-488.000
1987	508	0.980	0.96	7.66	-0.016	-8.000
1988	699	0.589	0.60	3.99	0.011	8.000
1989	600	0.778	0.97	5.70	0.188	113.000
1990	600	0.700	0.97	6.03	0.267	160.000

Continued

Table IV. *B O T S W A N A*
(cont.)

Branch / Year	Employees (Number)	Averages per employee in thousand constant 1980 US dollars: Wages and salaries	Manufacturing value added	Gross output	Gross profit	Gross profit (thous. cons. 1980 US dollars)
331 Wood and cork products incl. furniture						
1975	145	2.566	5.31	26.97	2.745	398.000
1976	151	3.199	5.30	24.44	2.099	317.000
1977	157	2.917	5.10	23.89	2.178	342.000
1978	164	2.860	5.00	23.54	2.140	351.000
1979	301	2.558	5.12	13.95	2.558	770.000
1980	255	2.373	2.51	10.59	0.137	35.000
1981	368	0.535	2.17	7.20	1.639	603.000
1982	138	1.464	4.28	11.45	2.812	388.000
1983	321	1.118	2.55	9.38	1.436	461.000
1984	278	1.529	3.35	16.91	1.817	505.000
1985	389	1.324	3.70	13.47	2.378	925.000
1986	848	1.396	2.18	8.24	0.785	666.000
1987	1023	1.828	2.06	8.89	0.235	240.000
1988	1060	1.421	3.69	13.67	2.268	2404.000
1989	1000	1.752	5.82	18.92	4.068	4068.000
1990	1400	1.218	4.86	17.46	3.639	5095.000
341 Paper, printing and publishing						
1975	15	5.133	20.67	113.33	15.533	233.000
1976	20	4.500	22.00	97.00	17.500	350.000
1977	18	4.278	22.78	115.00	18.500	333.000
1978	16	3.188	28.75	138.12	25.563	409.000
1979	98	3.418	5.82	23.27	2.398	235.000
1980	109	4.248	7.06	27.16	2.817	307.000
1981	134	3.552	7.61	16.49	4.060	544.000
1982	154	2.929	4.55	18.25	1.617	249.000
1983	500	1.338	3.82	10.86	2.482	1241.000
1984	323	1.675	6.84	19.66	5.167	1669.000
1985	521	2.668	6.45	20.06	3.781	1970.000
1986	322	2.758	8.88	25.37	6.124	1972.000
1987	775	3.305	4.98	10.83	1.676	1299.000
1988	841	2.709	4.96	26.90	2.250	1892.000
1989	1000	2.613	5.44	23.39	2.827	2827.000
1990	1500	1.682	3.85	15.69	2.171	3257.000

Continued

Table IV. *B O T S W A N A*
(cont.)

Branch		Averages per employee in thousand constant 1980 US dollars				Gross profit
Year	Employees (Number)	Wages and salaries	Manufacturing value added	Gross output	Gross profit	(thous. cons. 1980 US dollars)
351 Ind. and non-ind. chemicals, rubber, plastics						
1975	20	1.950	60.50	190.50	58.550	1171.000
1976	25	2.040	57.20	140.00	55.160	1379.000
1977	28	2.286	36.43	98.21	34.143	956.000
1978	30	2.133	34.00	103.00	31.867	956.000
1979	32	2.000	22.50	69.69	20.500	656.000
1980	31	1.645	24.84	74.84	23.194	719.000
1981	149	1.470	5.97	20.74	4.503	671.000
1982	111	3.135	15.23	55.68	12.090	1342.000
1983	426	1.420	1.08	20.63	-0.340	-145.000
1984	397	2.496	6.45	26.07	3.952	1569.000
1985	301	3.548	11.79	40.96	8.246	2482.000
1986	438	3.203	10.71	36.60	7.505	3287.000
1987	398	2.621	17.11	61.36	14.490	5767.000
1988	623	2.480	17.08	81.32	14.599	9095.000
1989	706	2.334	20.24	75.34	17.907	12642.000
1990	1000	1.944	16.50	57.10	14.556	14556.000
381 Metal products, machinery and equipment						
1975	276	2.612	4.93	20.51	2.315	639.000
1976	299	2.756	4.78	20.27	2.027	606.000
1977	325	2.415	3.88	18.46	1.462	475.000
1978	353	2.150	3.06	17.82	0.909	321.000
1979	502	1.693	1.35	16.69	-0.339	-170.000
1980	577	1.873	-0.68	10.71	-2.549	-1471.000
1981	453	1.534	2.69	9.69	1.159	525.000
1982	1129	1.631	2.17	5.11	0.539	609.000
1983	1812	1.648	2.20	5.24	0.554	1004.000
1984	1933	2.610	5.02	6.08	2.413	4664.000
1985	1999	3.181	5.16	6.96	1.976	3951.000
1986	2481	2.999	4.22	7.64	1.225	3040.000
1987	2570	3.802	4.10	8.18	0.300	770.000
1988	2724	3.620	5.27	12.04	1.648	4490.000
1989	3500	2.460	5.61	10.68	3.151	11029.000
1990	4500	1.834	4.63	8.79	2.800	12599.000

Continued

Table IV. *B O T S W A N A*
(cont.)

Branch / Year	Employees (Number)	Averages per employee in thousand constant 1980 US dollars				Gross profit
		Wages and salaries	Manufacturing value added	Gross output	Gross profit	(thous. cons. 1980 US dollars)
390 Misc. manufacturing not elsewhere specified						
1975	474	3.082	6.81	27.89	3.732	1769.000
1976	545	2.987	10.35	30.90	7.361	4012.000
1977	626	2.899	8.47	25.29	5.567	3485.000
1978	720	3.053	9.15	30.15	6.100	4392.000
1979	911	2.673	19.06	33.06	16.383	14925.000
1980	1106	2.514	9.43	21.76	6.917	7650.000
1981	1272	2.545	12.92	29.17	10.380	13203.000
1982	1289	1.881	15.13	37.94	13.247	17075.000
1983	1935	1.238	9.90	23.95	8.659	16755.000
1984	1234	1.553	10.14	31.61	8.584	10593.000
1985	1377	1.325	8.47	32.29	7.150	9845.000
1986	2178	1.582	6.59	25.92	5.006	10904.000
1987	3110	1.509	3.91	19.65	2.398	7457.000
1988	3215	2.083	5.75	25.34	3.665	11783.000
1989	4700	1.217	4.79	19.17	3.569	16772.000
1990	4600	1.152	4.94	18.39	3.789	17429.000
3 Total manufacturing						
1975	3850	2.945	10.37	41.48	7.426	28590.000
1976	4275	2.767	10.62	37.75	7.851	33561.000
1977	4150	2.525	11.86	43.91	9.335	38742.000
1978	4447	2.440	9.57	41.23	7.126	31689.000
1979	5476	2.273	12.78	41.42	10.505	57523.000
1980	5560	2.000	6.55	27.50	4.552	25309.000
1981	6418	1.935	8.75	30.05	6.818	43759.000
1982	7154	1.891	10.50	31.35	8.611	61602.000
1983	9798	1.668	7.65	26.25	5.981	58603.000
1984	9530	2.223	7.63	24.24	5.406	51523.000
1985	9940	2.440	7.28	25.99	4.842	48130.000
1986	12204	2.362	7.81	24.73	5.447	66480.000
1987	14809	2.346	8.02	23.48	5.675	84039.000
1988	16538	2.498	7.64	27.23	5.139	84982.000
1989	22206	1.826	6.46	20.59	4.631	102834.000
1990	24300	1.604	5.96	18.96	4.360	105955.000

Source: RBG Database, PPD/IPP

Table Va. **B O T S W A N A** Annaul average growth rate of the number of employees at the 3-digit ISIC branch level as of 1980

Year	Food	Beverages	Tobacco	Textiles	Wearing apparel	Leather	Leather footwear	Wood	Furniture	Paper	Printing	Industrial chemicals	Non-ind. chemicals	Petro. refining
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	13.7	-9.0	0.0	54.0	0.0	-23.8	0.0	44.3	0.0	22.9	0.0	380.6	0.0	0.0
1982	1.3	17.6	0.0	50.1	0.0	-32.3	0.0	-26.4	0.0	18.9	0.0	89.2	0.0	0.0
1983	5.4	21.7	0.0	34.0	0.0	-15.2	0.0	8.0	0.0	66.2	0.0	139.5	0.0	0.0
1984	7.9	14.5	0.0	27.9	0.0	-26.5	0.0	2.2	0.0	31.2	0.0	89.2	0.0	0.0
1985	7.4	8.8	0.0	17.3	0.0	-3.0	0.0	8.8	0.0	36.7	0.0	57.6	0.0	0.0
1986	8.3	13.4	0.0	12.3	0.0	4.4	0.0	22.2	0.0	19.8	0.0	55.5	0.0	0.0
1987	5.5	16.1	0.0	19.8	0.0	5.3	0.0	22.0	0.0	32.3	0.0	44.0	0.0	0.0
1988	6.2	15.7	0.0	20.0	0.0	8.9	0.0	19.5	0.0	29.1	0.0	45.5	0.0	0.0
1989	9.4	17.2	0.0	23.6	0.0	6.1	0.0	16.4	0.0	27.9	0.0	41.5	0.0	0.0
1990	9.3	16.3	0.0	19.7	0.0	5.4	0.0	18.6	0.0	30.0	0.0	41.5	0.0	0.0

Year	Misc. refining	Rubber	Plastic	China	Glass	Misc. non-metallics	Iron and steel	Non-ferrous metals	Metal products	Machinery	Electrical machinery	Transp. equip.	Scientific, professional	Misc.	Total
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-21.5	0.0	0.0	0.0	0.0	15.0	15.4
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.9	0.0	0.0	0.0	0.0	8.0	13.4
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.4	0.0	0.0	0.0	0.0	20.5	20.8
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.3	0.0	0.0	0.0	0.0	2.8	14.4
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.2	0.0	0.0	0.0	0.0	4.5	12.3
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	0.0	0.0	0.0	0.0	12.0	14.0
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.8	0.0	0.0	0.0	0.0	15.9	15.0
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	14.3	14.6
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	17.4	16.6
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8	0.0	0.0	0.0	0.0	15.3	15.9

Source: BEC Database, PPD/IPP

Table Vb. B O T S W A N A Annaul average growth rate of the number of employees at the 3-digit ISIC branch level as of 1985

Year	Food	Beverages	Tobacco	Textiles	Wearing apparel	Leather	Leather footwear	Wood	Furniture	Paper	Printing	Industrial chemicals	Non-ind. chemicals	Petro. refining
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	13.2	39.9	0.0	-9.6	0.0	51.2	0.0	118.0	0.0	-38.2	0.0	45.5	0.0	0.0
1987	1.0	36.8	0.0	26.5	0.0	29.5	0.0	62.2	0.0	22.0	0.0	15.0	0.0	0.0
1988	4.1	28.2	0.0	24.6	0.0	32.1	0.0	39.7	0.0	17.3	0.0	27.4	0.0	0.0
1989	11.9	28.6	0.0	32.0	0.0	18.6	0.0	26.6	0.0	17.7	0.0	23.8	0.0	0.0
1990	11.2	24.2	0.0	22.1	0.0	14.6	0.0	29.2	0.0	23.6	0.0	27.1	0.0	0.0

Year	Misc. refining	Rubber	Plastic	China	Glass	Misc. non-metallics	Iron and steel	Non-ferrous metals	Metal products	Machinery	Electrical machinery	Transp. equip.	Scientific, professional	Misc.	Total
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.1	0.0	0.0	0.0	0.0	58.2	22.8
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	50.3	22.1
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0	0.0	0.0	32.7	18.5
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	35.9	22.3
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	0.0	0.0	0.0	0.0	27.3	19.6

Source: RSG Database, PPD/IPP