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UGANDA

Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness

Part I. Industrial development: analysing competitiveness, growth potentials and investment opportunities

MINISTRY OF TOURISM, TRADE AND INDUSTRY

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness

Part I. Industrial development: analysing competitiveness, growth potentials and investment opportunities

in consultation with

Ministry of Finance, Planning and Economic Development
Uganda Manufacturers Association
Uganda National Chamber of Commerce and Industry
Private Sector Foundation Uganda

Ministry of Tourism, Trade and Industry
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna, 2007

This document has not been formally edited.

Acknowledgement

A major programme element of the Uganda Integrated Programme for Agro-Processing and Private Sector Development (Phase II) is that of "Capacity Building for Industrial Policy Development, Effective Governance and Economic Management. Within that framework, UNIDO was commissioned by the Ministry of Tourism, Trade and Industry (after consultations with the Ministry of Finance, Planning and Economic Development) to undertake an industrial sector survey/competitiveness analysis and advise on an integrated industrial policy for sustainable industrial development and competitiveness.

It was agreed by all the key stakeholders that the policy should be defined through an interactive process involving the key stakeholders in government, the private sector, the university and other development agents of relevance to industry. At the very initial stage of the process, individual consultations were held with the major stakeholders to get a thorough insight of the problems and challenges to industry in Uganda, taking into consideration the increasing trend of globalisation, as well as, opportunities for a competitive and sustainable industrial sector.

In September 2004, a National Public-Private Consultative Meeting/Workshop was organised by the Ministry of Tourism, Trade and Industry in cooperation with UNIDO, the Uganda Manufacturers Association, the Uganda National Chamber of Commerce and Industry and the Private Sector Foundation Uganda, to reflect and deliberate on the industrial structure of Uganda, challenges and opportunities for a competitive and sustainable industrial sector, with a view to defining an integrated industrial policy. The Workshop critically reviewed and assessed the enabling environment for private sector led industrialisation. The Workshop also reviewed drivers of competitiveness as perceived by leading economists on the subject, as well as international best practices for manufacturing improvement, competitiveness, policy development, implementation and monitoring.

The main objective of the Workshop was to reach a general consensus on the key actions that would be required to improve the competitiveness platform of Uganda.

In 2005, an industrial enterprise/competitiveness survey was conducted by a team of consultants from the Economic Policy Research Centre, Makerere University as local sub-contractor under the direction of UNIDO and the Ministry of Tourism, Trade and Industry. The questionnaire for the enterprises/competitiveness survey, including a questionnaire on industrial human resource was prepared by UNIDO. The findings and results of the survey were collectively reviewed and analysed by UNIDO, the Ministry of Tourism, Trade and Industry in cooperation with the Industrial Development Corporation of South Africa (IDC).

The industrial development/competitiveness analysis, therefore, draws heavily on the actual field enterprise survey that was conducted by the EPRC on behalf of the Ministry of Tourism, Trade and Industry and UNIDO.

The Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness is in three parts, namely:

Part I - Industrial Development: Analysing competitiveness, growth potentials and investment opportunities

Part II - Integrated Industrial Policy

Part III - Policy for Micro and Small Industries Development

The industrial sector/competitive analysis and policy documents were prepared by a core team of international and national experts, headed by Remie Toure, through an interactive process involving continuous consultations with the key stakeholders in Uganda. The members of the core policy team are Remie Toure, Cankwo Okulo, Joseph Kitamirike, Yuri Akhleviani, Ekoue Yves Amaizo, Vernetta Barungi, Antiqi Ego, Charles Kwesiga, Ibrahim Kasirye, Fred Muhumuza, Joshua Mutambi,, Patrick Nakoko, Steven Ntabi, Micah Mitoko, Victor Richardson Nichodemus Rudaheranwa, Frederik Ssematengo, Christo van Zyl, Samuel Wangwe and Joerg Wiegratz. Many in Uganda, in both the public and private sectors, as well as some of Uganda's cooperating partners provided comments and contributions. In particular, the comments and contributions of the following are acknowledged: Professor Edward P. Rugumayo, Daudi Migereko, Professor Ephraim Kamuntu, Namuyanga Byakatonda, Abid Alam, Peter Ahabwe, Moses Byaruhanga, Mugambe Joseph, James M. Mugume, Patrick Mwesigye, Samuel Balagadde, Billy Butamanya, Gabriel Hatega, Sam G. Nahamya, Keith I. Muhakanizi, Peter I. Ngategize, Lance Kashugyerago, Maggie Kigozi, Amos Lugoloobi, Rose Munyira, John B. Maloe Mukusa, Sarah Nalumansi, Ahabwe Godfrey Pereza, Abel Rwendeire, Charles Mulagwe, Hilary Obanyo, Samuel Ssenkungu, Gideon Bardagawa, as well as senior officers of government ministries, departments and chief executives of industrial firms. Laura Reynaldo-Crisostomo, Shanta Ramakrishnan and Diane Rymer provided secretarial and administrative assistance.

The analysis was funded by UNIDO through technical assistance resources provided under the UNIDO Integrated Programme for Agro-Processing and Private Sector Development (IP II): Programme element on "Capacity Building for Industrial Policy Development, Governance and Economic Management YA/UGA/04/412, US/UGA/04/046 and XP/UGA/06/002.

The findings, analysis, conclusions and recommendations are those of the core team of national and international experts and should not be attributed in anyway to UNIDO. UNIDO should not be held responsible for the accuracy of information and data in this analysis.

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Executive Summary

Uganda's Vision 2025 calls for the development of a vibrant and competitive economy in which industry has a significant role in diversifying production patterns and in producing high quality goods for export. Various strategies and action plans have been developed to steer the country's economy towards sustainable development and increased competitiveness and in addressing the challenges of globalisation. In addition, the 2006 Manisfesto of the National Resistance Movemet (NRM) describes the mission of the NRM as follows: "to transform Uganda from a poor peasant society into a modern, industrial, united and prosperous skilled working and middle class society".

The starting point of this Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness is a critical review and assesment of prior and on going policy instruments and policy environment that have made or are capable of making an impact (both negative or positive) on the industrialisation efforts of Uganda. The initial attempts by Afrcan countries to define industrial policies, in particular, import substitution policies, and export oriented policies (though inappropriate in most case) and the subsequent implementation of such policies led to significant increases in the share of manufacturing to the gross domestic product (GDP). The import substitution policy adopted by Uganda in the 1960s was unique. It recognised the benefits of economies of scale and took into consideration its geographical location and the advantages of regional cooperation. In common with other countries, however, such policies could not be sustained and subsequently failed to transform the economic landscapte primarily because they relied so heavily on planning and programming without any comprehensive assessment of the industrial sector or the economy. In addition, there were no clearly defined strategic targets and the institutional arrangements for policy development, implementation and monitoring were weak.

By the mid 1990s, it was becoming quite apparent that policy development is an interactive process and the private sector was slowly emerging as a lead agent for development and change. The country adapted its first Poverty Eradication Action Plan whose main goals were good governance and security after a long period of political instability; accelerated and sustainable economic growth, empowerment and increased capacity to create employment and generate incomes, especially for the poor in urban and rural areas. Subsequent Poverty Eradication Action Plans addressed production and competitivess in addition to income insecurity, conflict management, disaster preparedness, etc.

Chapter I of this industrial development/competitivess analysis also critically reviews policies in response to the challenges of globalisation, in particular, the Medium Term Competitiveness Strategy (MTCS) 2005-2009.

All these strategies and action plnas aim at tranforming the socio-economic landscape of Uganda. It should be acknowledged that they have contributed to the revitalisation of some productive sectors in Uganda, increased production and employment creation, in particular, in the industrial sector.

In Chapter 2 of this analysis, a comprehensive assessment of the macro-economic situation and industry is presented. Manufacturing accounts for approximately 10 percent of GDP

which is commendable. However, there are some critical problems and constraints that should be addressed if Uganda is to achieve its goal of becoming a middle income counry with a thriving industrial sector.

The following are examples of such problems and constraints:

- *Limited capacities and capabilities for policy analysis, policy development and implementation.*
- *Inappropriate policies for sustainable industrial development and competitiveness*
- *Inadequate capabilities for effective governance, including corporate governance and economic management.*
- *Inadequate industrial support institutions to develop and sustain a competitive industrial sector.*
- *Inadequate technologies for the processing of the country's agricultural and mineral products*
- *Inadequate skilled industrial human resources, in particular, managers, industrial planners, engineers, technologists, technicians, etc.*
- *Lack of entrepreneurship development, inadequate entrepreneurial capabilities and lack of SME support institutions.*
- *Lack of engineering industries capable of producting capital goods, intermediate goods spare parts and components.*
- *Limited scope for forward and backward integration of industries and the agriculture-industry linkage.*
- *Inadequate technological capacities and capabilities, including information and communications capacities and capabilities.*

Inspite of these contraints, the manufacturing sector in Uganda achieved an annual growth rate of nearly 4 percent in 2003/2004 and there were significant increases in the production of textiles, clothing, leather goods and footwear.

The analysis in Chapter 2 also includes trends analysis in the various industrial sub-sectors such as the food processing industry, the beverage and tobacco industry, textiles, clothing and footwear industry, paper and printing industry, chemicals, petroleum and other chemical products industry, basic metal and metal products industry, non-metallic minerals industry, etc. The trends analysis, with a focus on production, employment, trade, investment etc., provides a clear picture of the structure and performance of the various industrial sub-sectors. Clearly, Uganda has the potential for a dynamic and sustainable industrial sector.

Given the role of micro, small and medium enterprises (MSMEs) in Uganda and the fact that such enterprises are to be found in every district of the country including the capital, Kampala, the problem and constraints of MSMEs are analysed, as well as the challenges and opportunities for MSMEs development. Although MSMEs face the same problems outlined above for the manufacturing sector, MSMEs have certain specific problems and constraints such as lack of savings and very limited access to credit facilities; limited access to training and extension services; poor business practices; limited use of information and communication technologies; inadequate skilled and trained labour etc.

Gender mainstreaming in industrial development is also addressed in the analysis as the gender gap in industrial production is one of the main constraints to industrial development. Women represent approximately 57 percent of the population of Uganda but account for less than 10 percent of industry's contribution to the gross domestic product(GDP). The various factors limiting their participation are reviewed. These include the gender division of labour and its negative impact on skills upgrading and functional status of women in industry; limited access to credit; restrictive allocation of land, lack of effective gender planning in industry, etc.

The findings and conclusions of the existing realities in the macro-economy and industry provided informed substantive input for the policy recommendations outlined in Part II and Part III of this Integrated Industrial Policy for Sustainable Development and Competitiveness.

In Chapter 3, the focus is on industrial competitiveness. What is competitiveness and what drives competitiveness? The Chapter addresses the dynamics and implications of competitiveness at various levels, namely, at the macro level, industry level, the cluster level and at the firm level. At all such levels, the Government has a significant role in ensuring macro economic stability and an enabling environment for industries to grow, to improve productivity, be encouraged to create and innovate and to produe for the global market at competitive prices.

Uganda's competitive platform is analysed in Chapter 4. The analysis draws heavily from an industrial enterprise survey/competitiveness, analysis conducted by the Economic Policy Research Centre on behalf of the Ministry of Tourism, Trade and Industry and UNIDO. The survey covered about 144 industrial enterprises representing the major industrial sub-sectors in Uganda.

Each response to the questionnaire of the survey has been thoroughly analysed by UNIDO, in consulation with the Industrial Development Corporation of South Africa and the core policy team in the Ministry of Tourism, Trade and Industry. The analysis confirms that some of the factors and conditions influencing economic development and industrialisation also influence the platform on which industry could compete. The survey results reflect both qualitative responses and the subjective perceptions by industrial enterprises, owners and managers.

In cases where perceptions appear to indicate a problem, further investigation, outside the scope of the survey, has been carried out by the core policy team to verify accuracies and implications.

Chapter 5 reviews growth potentials and investments opportunities in Uganda including the potentials for diversification of industrial production in specific industrial sub-sectors, namely agro-industry, food processing, textiles, leather, fish, etc., metallurgical industries, chemical and engineering industries.

Specific analyses are presented as value addition and posiible production and marketing chains for coffee, cotton, textiles and clothing, fish, leather and leather products. Although the potential for expansion and new investments are acknowledged, the factors inhibiting expansions and investments have to be addressed in the context of an integrated industrial policy and specific measures that are outside the scope of such policy.

Part II of the Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness, taking into consideration the new wave of policy development and the essence of an industrial policy and, in particular , Uganda's industrial vision and objectives, as well as major strengths and weaknesses, proposes a set of policy instruments and policy elements that could contribute immensely in transforming the industrial landscape and achieving sustainable industial development and competitiveness. The long term vision for industry in Uganda is that of a vibrant and competitive industrial sector,contributing approximately 20 percent to the gross domestic product and fully integrated in the global economy. The long term vision for industry forsees industrial enterprises taking advantage of the global production systems and related supply chains. Uganda industrial firms could become an integral part of the international supply chains through supply linkages with domestic export –oriented foreign investment ventures or through export positioning directly. The policy actions highlighted in Part II would need the collective support of government ministries and departments and the private sector. The universities also have specific roles and responsibilities in policy implementation. Public-private partnership in policy development and policy implementation could have tremendous influence on industrial development and competitiveness.This partnership is an important eelement in many of the policy actions.

The Policy for Micro and Small Industries Development, as described in Part III of this Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness, draws heavily from a number of studies and policy papers prepared by the Ministry of Finance, Planning and Economic Development. The Policy for Micro and Small Industries Development complements the Integrated Industrial Policy presented in Part II. Micro and small industries (MSIs) also benefit from the macro-economic stability and the on-going reforms in the country. However, because of the nature and scope of such industries, special policy initiatives are needed to help them grow and become sustainable.

The Uganda vision 2025 and the Poverty Eradication Action Plan acknowledge the significant role of MSIs in the indsutrialisation process, poverty eradication, employment creation and income generation. The policy actions for micro and small industries development, therefore, aim at increasing productivity, creating employment, generating incomes, sustaining growth, as well as contributing at least 25-30 percent to industrial output. In addition, it is expected that, with the right policy institutions and policy elements in place, micro and small industries in Uganda would be fully integrated in the global economy.

1. POLICY INSTRUMENTS AND POLICY ENVIRONMENT

1.1. Evolution of industrial policies

Prior to gaining their independence from colonial rule, African countries' production patterns and markets were mainly organised to suit western interests. The continent's main raw materials, namely, minerals and agricultural goods, were produced and exported in their crude forms thus ensuring a steady supply of raw materials for the industrial expansion of some of the countries of Europe and the USA. At the same time, African countries provided a willing outlet for manufactured goods, the raw materials of which were also of African origin. With independence, those production patterns and trade were easily inherited and, in the absence of appropriate policies and strategies, perpetuated by African governments. Being producers of raw materials in an increasingly buyers' market noted for its violent price fluctuations also had serious consequences on the implementation of national development plans which invariably depended on the proceeds of exports. Having endorsed agricultural development in the 1960s, as well as expanding mining activities to increase export earnings, African countries were self sufficient in food in the 1960s. However, the relatively low demand for agricultural products resulted in a fall in the prices of many of such raw materials in the world market. The developed countries' corresponding large-scale production of all sorts of synthetic products or alternatives to Africa's raw materials frustrated the countries' efforts to mobilise adequate foreign exchange earnings to transform the economic landscape. The prices of manufactured goods were rising, African countries had to produce more primary goods to purchase the same amount of manufactured goods or alternatively, had to procure less manufactured goods for the same amount of primary produce. The fall in prices of primary produce, therefore, had catastrophic declines in the growth rates, as well as in export volumes of most commodities and in export earnings with tremendous deficit in the balance of trade of the African countries. The dependency or reliance of African countries on the export of primary produce, whose prices were determined externally for foreign exchange earnings, made African countries very vulnerable and contributed immensely to their 'underdeveloped status'. These countries were characterised by poverty, illiteracy, ill health, high mortality rates, etc.

Realising the dangers of depending solely on raw material exports, the African countries began to diversify their economies through multifarious, but quite homogeneous programmes of industrialisation with a view to accelerating economic growth, generating employment and income, alleviating poverty and raising standards of living. The industrial base at independence was extremely small. In the early 1960s the contribution of manufacturing to gross domestic product (GDP), in most countries, was less than 5 percent.

The very first attempt to define industrial polices in Africa focused on the production of basic consumer goods and a limited range of intermediate goods to replace imports. Africa was not alone. Traditional policies in Asia and Latin America also aimed at import substitution with elements of state control and growth poles. In the

case of Africa, the domestic markets were limited and the population's purchasing power was low. Import substitution was a natural ingredient in the growth process. A good number of industries were established in individual countries throughout Africa. Such industries utilised very little or no domestic raw materials. The raw materials and other inputs were mainly imported. A variety of policy instruments were employed to promote infant industries, many of which were foreign owned. They were exempted from taxes, offered duty free privileges for raw materials and machinery and some were even granted subsidies and other tariff and non-tariff protection.

Export oriented industries were also encouraged to develop as an important means of structural change. The export-oriented strategy was mainly agricultural led, although the processing of basic metals was also promoted to satisfy both domestic needs and for export. Egypt, Morocco and Cote d'Ivoire adopted export-oriented strategies.

Between 1963-1970, the average annual growth of GDP in Africa was about 4.7 percent compared to about 2 percent in the 1950s. The manufacturing sector grew at a rate of 8.3 percent. The contribution of industry to the GDP rose from about 14.5 percent in 1960 to approximately 20 percent in 1970, and to about 25.8 percent in 1977[1]. The share of value added of manufacturing in industry at constant factor cost (1970) was approximately 13 percent. The percentage share of individual countries, Uganda included, was between 6 to 20 percent. According to the Economic Commission for Africa, (ECA), of the 39 countries for which data was available, in the 1960s and 1970s, the share of manufacturing to GDP was less than 5 percent in 15 countries in the 1960s. However, by 1974, seven countries had a share of less than 5 percent[2]. Twenty-three countries had a manufacturing contribution of 5 to 15 percent to GDP in the 1960s, but by 1974, there were about 28 countries in this category. In the case of Uganda, the recorded rates were 12 percent and 15 percent respectively[3]. Some countries recorded 15 to 20 percent manufacturing contribution to GDP.

The main reason for the growth was increased production in response to growing real demand in the countries. The increased prosperity in the industrial sector was accompanied by increased population growth rate and low agricultural productivity[4].

The industries that were established produced mainly light consumer goods to satisfy the demands of a relatively small sector of the urban population. Such industries failed to establish meaningful forward or backward linkages within the industrial sector and with other sectors of the economy, notably the agricultural sector. The continent was littered with non-competitive high cost import substitution industries, heavily dependent on external sources for raw materials and other factor inputs. In addition, industries so established did not mitigate the problem of unemployment. Requisite knowledge of engineering design, process technologies

[1] UNIDO Database
[2] *Industry in a Changing World*, UNIDO, 1983
A Survey of Economic Conditions in Africa – 1960, 1961 to 1964 – ECA Secretariat
A Survey of Economic Conditions in Africa – 1972 – 1974 – ECA Secretariat
[3] ibid
[4] *Industry in a Changing World, UNIDO 1983*

and production methods were held back by the foreign partners. The full range of knowledge required for the efficient and effective operation and maintenance of plants and machinery were hardly shared with the African industrial labour force – a trend, which perpetuated the continent's weakness in technological capacities and capabilities for sustainable industrial development.

The import substitution policies in Africa did not result in the desired transformation of the economic landscape. Because of the heavy reliance on light consumer goods industries and total neglect for the production of intermediate and capital goods, Africa continued to rely on external sources for such goods, including spare parts and components - a trend which also encouraged an unprecedented borrowing of foreign capital from abroad, mainly from private sources, on onerous terms and conditions.

The export promotion strategy, adopted by some African countries, as indicated above, encouraged the ploughing back of foreign exchange earnings into downstream processing activities. In Egypt for example, the country's natural resources and relatively cheap labour were favourable factors for success at the initial stages. However, in common with the import substitution policy, most export-oriented enterprises maximised the importation of factor inputs, thus frustrating the domestic production of such factor inputs and suppressing the development of entrepreneurial capabilities and technology development. Export oriented industries were also heavily protected by tariff and non-tariff measures, as well as being subsidised. Major problems such as inadequacy of skilled industrial human resource, lack of technological capacities and capabilities, including industrial and technological information, the inability to exploit and process Africa's immense agricultural, mineral and energy resources, all contributed towards the down turn of industrial production by the late 1970s and throughout the 1980s and 1990s.

It could be argued, however, that some Asian countries also adopted import substitution polices and export-oriented strategies with success. The main examples are the Republic of Korea and Malaysia. However, unlike the African countries, the Asian countries produced a number of intermediate and capital goods from the very initial stages of their industrialisation process and pursued vigorous export oriented industrial policies with strong state support and a wide range of incentives. Asian governments created the enabling environment for a realistic and sustainable industrial development.

The growth pole policy was another option for the developing countries. Large-scale enterprises were established as an integral element of infrastructural projects, thereby ensuring much needed financial stability and effective related industrial support services. The large scale industrial enterprises were skill and technology intensive. Very few African countries were in a position to pursue such policies.

In retrospect, however, the failure of the above-mentioned policies in Africa could be attributed to the following:

- *Such policies relied heavily on planning and programming without any realistic assessment of the existing situation, potentials and challenges;*

- *Lack of clearly defined strategic targets;*
- *Weak institutional arrangements;*
- *Inappropriate investment laws, fiscal and custom regimes, which frustrated the growth and level of performance of domestic industries.*

1.2. Historical perspective of policy development in Uganda

Uganda was one of a few African countries with a thriving industrial sector prior to independence. There were small and medium industries, as well as large-scale industries. With the establishment of the Uganda Development Corporation (UDC) in 1952, industry was accorded priority in the country's development efforts. The UDC was charged with the responsibility of promoting the establishment of industries, including joint ventures, of negotiating finance and attracting direct foreign investment, as well as promoting the establishment of industrial research institutions and related support services. Uganda's manufacturing sector was developed mainly through import substitution with a focus on the production of consumer goods. Such industries relied heavily on imported factor inputs. They were heavily protected and in some cases heavily subsidised. The approved policy measures aimed specifically at foreign investments. Established industries included those producing textiles, soaps, vegetable oils, cigarettes, beer, soft drinks and other beverages, sugar, cement, footwear, etc. Some of the products such as sugar were also exported to neighbouring countries. The food processing, beverage and tobacco industries, accounted for approximately 45 percent of employment in the manufacturing sector. Textiles, leather and footwear industries, as well as the wood and wood products industry accounted for 16 percent of employment in the manufacturing sector.

There was a significant difference in Uganda's import substitution policy. Industrial development was perceived in a regional context, embracing the other two countries of the East African Community. Uganda exported a good number of its industrial products, as well as electricity to neighbouring Kenya. Although Uganda was one of the very first African countries to recognise the advantages of economies of scale and regional cooperation, Uganda's industrial development policy and strategy paid little attention to human resource development, in particular, the need to create a functional labour force, in terms of its pattern of industrialisation and economic development in general. Local entrepreneurial capabilities were not promoted and nurtured. Apart from joint ventures, with elements of state control, industries were mainly owned and managed by the Asian community. The Asian-owned enterprises were subsequently transformed into state enterprises after the expulsion of the Asian business community beginning in 1972. Technological capabilities were also lacking in the industrialisation process. In the Asian countries during the same period of the 1960s and 1970s, technological capabilities were regarded as prerequisites for sustainable development. The emphasis was not so much a country's capacity to invent or innovate technology, but rather a country's ability to acquire, exploit and diffuse the right kind of technology. Uganda, in common with other African countries did not recognise technology as an integral element of its industrial policy.

It was therefore not surprising that the increased prosperity in the industrial sector was short lived. By 1975, manufacturing output in Uganda had fallen drastically. Average annual growth was less than 5.0 percent and by 1984 was less than 3.0 percent. Industry was in a precarious situation and with increased population growth and the decline in agriculture, as a result of pockets of resistance within the country, food production and the volume of agricultural raw materials to industry also declined quite considerably.

To address the problem, a number of economic recovery programmes and rehabilitation and development plans were introduced. The programmes and development plans focused on reducing government control of industrial development and its role in the economy. The ultimate objective was to improve the efficiency and performance of industrial enterprises through, inter alia, the privatisation of public enterprises, strengthening industry support institutions such as the National Bureau of Standards and the Export Promotion Council, establishing capacities for the creation of industrial designs, etc. Nevertheless the poor performance of industry and the vulnerability of the industrial sector was still a reality in the 1990s.

1.3. The Industrialisation Policy and Framework 1994-1999

In the context of the country's Economic Recovery Programme, which aimed specifically at removing structural distortions and imbalances in the economy, as well as restoring macro-economic stability and effective economic management, the Industrialisation Policy and Framework 1994-1999 was formulated, primarily for investment promotion, especially investments that contributed to increased exports, the effective transfer of technology and the optimum utilisation of the country's natural resources.

The main objective of the Industrialisation Policy and Framework 1994-1999 was to ensure the swift transition from a public sector driven industrial development to a private sector led industrial development. The role of government was seen as facilitatory, ensuring that there was a conducive environment for industry to be established and for sustainable industrial development. Prior to the formulation and adoption of the Industrial Policy and Framework of 1994-1999, a number of industrial studies were conducted to provide policy makers with reliable and assessed information for policy decisions, as well as the country's development partners with information on possible opportunities for investment and development at all levels, including the district level. An example of such studies was the World Bank funded/UNIDO executed programme for diagnostic studies in selected industrial sub sectors with a focus on small and medium enterprises. Round table discussions were organised by the Ministry of Industry in collaboration with the Friedrich Ebert Foundation (FEF), bringing together the key stakeholders to review the process of industrial development, to identify problems and constraints, opportunities and challenges, as well as to deliberate on possible policy options to facilitate and accelerate industrial development. A number of key initiatives were introduced. District Promotion Centres were established to promote micro and small-scale enterprise development. Strategic consultative groups were also established for

increased dialogue between the Government and the private sector on critical economic and policy issues. The initial consultative efforts between the Government and the private sector were continuously nurtured, resulting in the current consultations on fiscal measures and public-private partnership in service delivery by utility providers. In general, the policy reform and related strategy of the 1990s were comprehensive and ambitious. The Government devoted its efforts towards creating an enabling environment. Physical infrastructure such as roads, electricity and water supply were greatly enhanced. Emphasis was also given to investment and more investment with a variety of incentives to attract foreign investments and lure back Uganda's Asian business community that was expelled from the country and whose properties, comprising also of industrial assets, had been confiscated. The latter were subsequently returned to the rightful owners.

The legal and regulatory frameworks for industry, in particular, small and medium industries, were revisited, resulting in simplified and more appropriate or contemporary legal and regulatory frameworks for industry and business. The 1990s also witnessed the development of industrial institution and industry support institutions, including the upgrading of existing ones. Examples of such institutions were the Uganda National Bureau of Standards, the Uganda Industrial Research Institute, the Uganda National Council for Science and Technology, the Uganda Investment Authority, the Uganda Coffee Development Authority and the Uganda Revenue Authority. The Investment Code of 1991 offered a number of investments incentives, both tariff and non-tariff, thereby attracting an impressive array of private investments in the industrial sector. Since then, the lucrative offers have been replaced with more realistic conditions and the Uganda Investment Authority has transformed itself to an effective investment promotion and facilitation authority.

The above-mentioned policy measures and institutional capacity building subsequently paid off. Industry grew at an impressive rate from an annual production growth rate of 11.8 percent in 1992 to approximately 17.0 percent in 1998. Industry's contribution to the gross domestic product (GDP) increased from 10.0 percent in the 1980s to approximately 20.0 percent by 1997/98. The share of manufacturing, per se, to GDP increased from 6.2 percent in 1992 to approximately 10.0 percent in 1995. The number of industrial establishments in the country also increased from 1,320 in 1989 to approximately 11,968 by 2003[5].

1.4. Poverty Eradication Action Plan 2004/2005 – 2007/2008

The Government of Uganda has always identified poverty eradication as one of its major development challenges. Although the country's long-term vision, namely, Uganda Vision 2025, recognises the importance of good governance, the modernisation of agriculture, human resource development and the benefits of building a competitive and vibrant economy that is private sector led, poverty eradication was and still is the ultimate long-term objective.

[5] Ministry of Tourism, Trade and Industry, Uganda

The long period of political instability and civil unrest in the late 1970s and early 1980s were partly responsible for the collapse of the country's economy and the precarious state of industry, as well as overall bad governance and economic management. It was estimated that in the early 1990s, as many as 50 percent of the population lived below the poverty line[6]. The Government, in consultation with other stakeholders, such as the organised private sector and relevant civil society organisations prepared its Poverty Eradication Action Plan (PEAP) in 1997. Through intensive consultations with the stakeholders, including community-based organisations, a number of poverty indicators were identified. Examples of such indicators are widespread unemployment, income poverty and inequality, food deficiency, food insecurity, inability to purchase or acquire the basic needs for sustainable livelihood, limited access to land, education, health, water and sanitation facilities. The initial Poverty Eradication Plan was revised in the year 2000 with clearly defined goals as follows:

- *Accelerated and sustainable economic growth, including structural transformation of the economic landscape;*

- *Good governance, and security;*

- *Empowerment and increased capacity to generate incomes, particularly increased incomes for the poor.*

It should be acknowledged that although the Government was not in a position to fully implement the Poverty Eradication Action Plan, the concrete steps taken within the framework of that Action Plan resulted in a fall in the percentage of people living below the poverty line from approximately 56 percent in 1992/93 to about 35 percent in 2000/2001[7]. The Poverty Eradication Action Plan of 2004 was further revised with a view to achieving the Millennium Development Goals. The Government has set a target of twenty years beginning 2004 to transform Uganda into a middle income country, driven by a thriving and competitive industrial sector that is primarily private-sector driven.

The current Poverty Eradication Action Plan 2004/5 – 2007/8, acknowledges the need to promote and develop resource-based industries with forward and backward linkages within the industrial sector and with other sectors. The Plan also recognises the important role of rural communities in the economic transformation process. Hence the strategy could be rightly referred to as an agricultural led strategy aimed at boosting production and exports and generating incomes.

Agriculture plays a major role in the country's economy but its contribution to GDP has declined steadily over the last two decades. However, approximately 86 percent of the population live in the rural areas. It is not surprising that the agricultural sector

[6] *Poverty Eradication Action Plan*, *2004/5 2007/8,* Ministry of Finance, Planning and Economic Development

[7] UNDP – Human Development Report
-Poverty Eradication Action Plan 2004/5-2007/8

provides employment for the bulk of the population. It is estimated that about 77 percent of the active labour force in the rural areas are in agriculture[8].

Agricultural production has fallen well below the production levels of the 1980s and as stated earlier, its share in the Gross Domestic Product (GDP) has also declined. Agriculture now accounts for about 30 percent of GDP and the Government is determined to increase agricultural production to ensure food security and adequate supply of raw materials for industry and for exports. In this regard, the following interventions are considered highly appropriate.

- *Agricultural research and technology development, including strengthening existing capacities for agricultural research, encouraging private sector investment in agricultural research and development;*

- *Expansion of agricultural advisory services throughout the country;*

- *Livestock development, including the control of diseases and introduction of new technologies to increase production.*

The assumption is that by targeting agriculture and rural development, government intervention in the development process will benefit the majority of the people, in particular, the poor in the rural areas, with a view to improving basic conditions of life, enhancing productivity, generating incomes and, thereby, increasing the demand for non agricultural products and services. This will inevitably ensure a larger market for Uganda's industrial products and services. Essentially, this conceptualisation is informed by a value chain approach i.e. adding more value to existing agricultural products and raw materials that are mainly exported in their crude or semi-crude form.

The Poverty Eradication Action Plan is one of the main policy instruments designed to transform Uganda into a middle-income country. It is envisaged that the process will involve private sector level industrialisation to ensure that industry accounts for a higher share in the country's GDP. Emphasis is put on value addition through the processing of Uganda's diverse agricultural products. Unlike the industrialisation process of the 1960s and 1970s, the Government is unlikely to protect domestic industries. The focus is to enhance competitiveness. The government's strategy to enhance competitiveness includes "strengthening infrastructure, especially electrical power, boosting the education system of the workforce; improving the financial system and establishing a regulatory regime that ensures a level playing field. The question is would such steps, if taken, be significant for Uganda's competitiveness platform and for industries to be competitive? These are some of the issues to be reviewed later in this industrial sector / competitiveness analysis.

The value chain concept, as perceived by some authorities in Uganda, appears to be inadequate or limited. There is a conceptual oversight in separating value addition as a special activity that is carried out mainly in the industrial realm (for example value is added to coffee by processing, packaging and marketing); whereas, in fact,

[8] Uganda Bureau of Statistics - *National Household Survey 2003*,
- *Poverty Eradication Action Plan 2004/5-2007/8*.

the value chain concept should take into consideration the full range of value added activities from production, processing, preservation, packaging, marketing and distribution, including after sales services. For a particular industrial product, the value chain process could include product design, production process, packaging, marketing, distribution, customer support and recycling, where appropriate. Real value addition is a continuous process and takes place at every stage of the chain. What is relevant is the organisational efficiency of the various elements of the chain, as this could impact highly on productivity, competitiveness, sustainability of market outlets and profits.

The Poverty Eradication Action Plan recognises the need to ensure higher demand and returns for agricultural products, through agro-processing. However, all opportunities for higher value activities should be identified, pursued and explored for efficiency gains, productivity enhancement along the chain through, for example, reorganisation of the chain and the chain players, where appropriate; introducing up-market activities, mergers and takeovers with a view to carrying out higher value productive activities. The Poverty Eradication Action Plan puts too much emphasis on the initial processing of agricultural products and marketing. It does not take into consideration the existing realities of industry in Uganda that are likely to introduce new production lines and processes or develop new products. Some of the industries also need to move up market, engage in higher value-added products and activities. The Poverty Eradication Action Plan also offers very little support to industry, existing or potential industries. Similarly, it does not capture the importance of tapping opportunities for entry into non-resource based industries with considerable scope for integration in the global value chain. In such industries, an industrial unit located in a particular country could carry out a specific function or manufacture a specific product to be used in other industrial units or industry in another location in or outside Africa. To do so, however, in addition to the expansion of the agro-industry linkage, the corresponding infrastructure and support services should be developed and targeted investment in human resource development should be encouraged.

As indicated earlier, the Poverty Eradication Action Plan identifies several forms of poverty. It also identifies poverty with respect to certain groups such as poverty by occupational groups and disadvantaged groups. According to the analysis in the Plan, the percentage of the population below the poverty line in terms of income poverty has fallen gradually since 1992 from 55.7 percent in 1992 to 37.7 percent in 2002/2003. The rural population is much more affected than the urban population. In the rural areas, it is estimated that some 59.7 percent of the population was below the poverty line in 1992 but by 2002/2003, the figure was approximately 51.0 percent. Poverty in the urban areas in terms of income level was estimated at 27.8 percent in 1999 and about 12.2 percent in 2002/2003. The main reason for the drastic fall was the increase in average income. It should be noted, however, that poverty was reduced quite drastically in 1999/2000 with a recorded percentage of 37.4 percent below the poverty line in the rural areas and 19.7 percent in the urban areas[9].

[9] Ministry of Finance, Planning and Economic Development, *Poverty Eradication Action Plan 2004/5 – 2007/8*

The Poverty Eradication Action Plan also acknowledges that throughout the country and in every region, there was a general increase in the number of people below the poverty line in 2002/2003. The situation was relatively the same in 2004/2005. To tackle the problem, the Government is determined to focus its efforts on production, human resource development, infrastructural development, improved accessibility to public service and empowerment of disadvantaged groups.

In terms of production, the major shift is towards industrialisation and export promotion and, for human resource development, the main indicators are education and health. The average literacy rate in Uganda, which was approximately 65 percent in 1999/2000, rose to 70 percent by 2002/2003, with women and girls being the main beneficiaries of the education and adult literacy programme[10]. Although major improvements have been made in the country's health service, water and sanitation, problems of HIV/AIDS, infant mortality and maternal mortality still remain. In accordance with the Millennium Development Goals, the government's target is 50 percent reduction in infant and maternal mortality by 2015. The Government envisages a real GDP growth target of 7 percent per annum, though private sector led growth initiatives. Quite apart from agriculture and rural development, major improvements are foreseen in infrastructure, energy and industry, in particular, micro, small and medium enterprises. Governance and macro economic management with the full involvement of the public and private sectors are also highlighted in the poverty reduction strategy.

Leadership and managerial competencies are key priorities for human resource development. This corresponds with the main goals of the New Partnership for Africa's Development (NEPAD) and some elements of the Millennium Development Goals (MDGs). In this regard, in 2005 the Ministry of Tourism, Trade and Industry in cooperation with the United Nations Industrial Development Organization, the Ministry of Finance, Planning and Economic Development, the Ministry of Public Service, the Private Sector Foundation and the Uganda Manufacturers Association organised a Consultative Forum/Workshop on *"Strengthening Competencies for Governance and Economic Management in Uganda"*. The aims of the Forum/Workshop were to raise awareness of good governance, its implications and benefits; sharing experiences among the stakeholders in government, the private sector and academia and assisting participants to improve management and leadership for more effective governance and economic management.

Other elements of the Poverty Eradication Action Plan includes, enhancing production competitiveness and income security, conflict resolution and disaster management for which some of the main issues would be mainstreaming disaster preparedness into sectoral programmes and establishing an emergency contingency fund, as well as implement programmes for post-conflict reconstruction[11].

[10] Ministry of Finance, Planning and Economic Development, *Poverty Eradication Action Plan 2004/5 – 2007/8*,

[11] Ministry of Finance Planning and Economic Development, *Poverty Eradication Action Plan 2004/5 – 2007/8*,

1.5. Policies in response to the challenges of globalisation

In an increasingly globalised economy with emphasis on competitiveness, the increasing role of the private sector in economic development, in particular industrial development, it has become quite apparent that traditional approaches to policy development, implementation and monitoring, whereby the government is the only stakeholder responsible for all three functions is no longer appropriate. Prior to the 1990s, an industry policy was considered as a policy towards industry whose essential ingredients are the specific objectives of the policy and the strategy for its implementation, highlighting the policy instruments to be employed and the policy environment in which the industrial policy would be applied. An industrial policy was, therefore, a framework for industrial development covering such aspects as macro-economy, fiscal factors and infrastructure that should be in place for industry to thrive. Such policies were considered as reactive and bureaucratic. By the early 1990s, there were signs of discontent. The key stakeholders, namely the government and the private sector, began to recognise that neither the government nor the private sector, per se, could promote and develop the industrial sector. It was no longer considered appropriate for the government to formulate industrial master plans. The rise to prominence of the private sector in the economic development of the developing countries in Africa has led to various kinds of strategic networking among the stakeholders and the acknowledgement by government of its facilitating role and responsibility for governance and economic management, as well as the promotion and development of public private sector consultative mechanisms and partnerships. The latter provides a unique opportunity for policy development to be done in an atmosphere of transparency and trust. The continuing importance of public private partnership has enabled the government and the private sector including, where appropriate, academia to collectively address the complexities of economic development, the implications of industrialisation in an increasingly globalised economy and to make informed policy decisions that will improve the enabling environment for a competitive and sustainable industrial sector.

The 1990s witnessed the emergence of policies focusing on industry level competitiveness with the firm as the core factor. Policy instruments were designed to improve first and foremost productivity, while at the same time promote and facilitate the introduction of new technologies, organisational methods, R & D resources, including knowledge resources to strengthen the capacity of the industrial firm to produce good quality products at reasonable prices. Industrial policies were therefore targeted at "the facilitating firms to acquire the knowledge embodied in capital goods, design and other non-tacit sources of technology[12]." According to Claudio R. Frischtak "*the build up of capabilities is a purposeful act of creating comparative advantages while helping more firms along the technological gradient. Thus, in attempting to build industrial capabilities, the object is not only to improve the environment for technology development, but materially contribute to enlarge the endowment base*[13]". The main issue, however, is that firms should be in a position to master and use technologies bearing in mind the pressures and influences, both

[12] Claudio R. Frischtak: *New Industrial Policy concept and essentials in the changed global context* – seminar paper prepared in UNIDO, October 1997.
[13] Ibid – Claudio R. Frischtak

internal and external that could impact positively or negatively on technology decisions.

With the current thrust for export promotion in a competitive global economy, some countries are opting for sub-sectoral targeting of industrial policies. In general, specific sub-sectors contribute substantially to manufacturing output, employment and, in some cases, export earnings. Uganda, by the end of the 1990s, was seriously thinking in terms of increasing the competitiveness of its products through increased research and development (R&D), introduction of new technologies and the overall restructuring of its production patterns. The end result was the formulation of the Medium Term Competitiveness Strategy (MTCS) for the Private Sector.

1.6. Medium Term Competitiveness Strategy for the Private Sector (MTCS) 2000 – 2005

By the 1990s, the Government had come to acknowledge the important role of the private sector in transforming the economic and industrial landscape of Uganda. A number of economic reforms were introduced to create an enabling environment for the private sector. Such reforms included the effective implementation of the Investment Code of 1991, the gradual privatisation of public enterprises, the reduction of import tariffs, elimination of licensing requirements, lifting of import bans, the elimination of export taxes, the harmonisation of tariffs within the East African Community and trade liberalisation in general. Economic performance was encouraging with the annual growth rate of the gross domestic product (GDP) increasing from 3 percent in 1990 to 4.9 percent by 2002/2003. Foreign investment increased quite substantially with a record level of US$ 135 million in 1996. With the formulation and subsequent implementation of a National Export Development Programme (1996), there was some diversification of the productive bases of the country, as well as the export base. It was made possible by the introduction of credit schemes for enterprises, which also enabled firms to upgrade production technologies and process technologies, thereby increasing productivity and outputs. Nevertheless, the private sector could not adequately compete within the regional market and the global market. For example, in a 1998 firm level survey conducted by the World Bank, it was observed that the competitiveness of the private sector was constrained because of serious structural problems such as inadequate infrastructure, in particular, electricity/energy, transport, communications and water. The availability and high cost of physical resources, such as land, raw materials, etc. were also identified as critical factors frustrating the competitiveness of Ugandan firms and products. The introduction of the Medium Term Competitiveness Strategy was, therefore, a welcome relief.

The Medium Term Competitiveness Strategy was formulated in an interactive process, involving the participation of the key stakeholders through a consultative process. The private sector, in particular, the organised private sector such as the Private Sector Foundation Uganda and the Uganda Manufacturers Association, was able to critically review the factors that affect private sector development, accord priorities, determine targets and share responsibilities.

As should be expected, the ultimate objectives of the Medium Term Competitiveness Strategy was to improve the business environment so that the private sector could compete effectively; improve the economic performance of the country by increasing production, as well as exports. The enabling environment envisaged was one in which the private sector could increase its capacity to produce, create employment, while at the same time make profit in a free and competitive business platform that was also capable of attracting both domestic and foreign investments. The Government was expected to facilitate the process by adopting and implementing appropriate policies, legal and regulatory frameworks, especially those aimed at promoting and developing micro and small enterprises (MSEs). In this regard, cluster development was to be encouraged with possibilities of linking MSE activities to large firms in the formal sector. The Government also recognised that firms could not effectively compete as the major obstacles were related to governance and the effective management of economic development. Five priority areas were identified for immediate action as follows[14].

1.6.1 Reforms in infrastructure provisions

The objective was to improve infrastructure to effectively contribute to private sector development through:

- Reduction of the cost of infrastructural services (electricity, water, transport and communications);
- Improving the quality of infrastructural services (in terms of performance, efficiency, availability, reliability and sustainability even with increased demand);
- Increasing access to infrastructure nation wide with emphasis on linking the rural productive areas to the urban areas and for exports;
- Reducing the cost of infrastructural provision (by government); as well as improving the effectiveness of government subsidies in infrastructure.

1.6.2 Strengthening the financial sector

The Medium Term Competitiveness Strategy also aimed at strengthening the financial sector, more especially improving the nature and scope of the financial sector to ensure improved access to finance at reasonable cost. Other objective of the financial component of the Medium Term Competitiveness Strategy included:

- Reducing the risk associated with lending to private sector firms;

[14] Ministry of Finance, Planning and Economic Development – *Medium Term Competitiveness Strategy for Private Sector (2000 – 2005)*

- Promoting financial savings and restoring public confidence in the financial sector;

- Providing incentives for the diversification of financial products for small and medium enterprise development

1.6.3 Improved financial services for micro and small enterprises

Realising, in particular, that opportunities for waged employment in the private sector was limited, the Medium Term Competitiveness Strategy also aimed at developing micro-finance institutions to improve access to financial services for micro and small enterprises. Financial services to small and medium enterprises were also limited with existing institutions providing only short-term loans not exceeding twenty million Uganda Schillings. Large-scale enterprises could source credit from commercial banks or development bank with an average threshold of US$100,000. For a country that aimed at improving competitiveness, diversifying production for exports, which inevitably involved improvement in technology, such amounts were indeed limited. It was, therefore, considered quite appropriate to introduce new financial products and services such as asset leasing and venture capital with particular emphasis on taxation arrangements and obligations of the participating stakeholders. The development of capital markets, in particular, the stock market was also another viable option.

1.6.4 Institutional framework for investment and export promotion

The institutional frameworks for investment and export production were also considered relevant for competitiveness. Therefore, the Medium Term Competitiveness Strategy highlighted specific strategic actions to strengthen the Uganda Investment Authority and for export promotion. In terms of investment, the focus was not only on investment promotion and marketing of investment opportunities, but also facilitating the investment process and ensuring completion of investment proposals. In terms of exports promotion, measures were introduced to remove the anti-export bias, and to introduce export finance and guarantee schemes.

1.6.5 Skills development and training

The Medium Term Competitiveness Strategy also addressed issues of skills development and training focusing on country wide community based skill training for micro enterprises; training of trainers; introduction of skill based training for small business; the establishment of vocational training institutions in each district; the creation of mobile training facilities; entrepreneurship and technical training based on private sector led demand for such specific skills.

1.6.6 The essence of MTCS 2000 – 2005

The Medium Term Competitiveness Strategy 2000-2005, in a way, succeeded in creating an environment for private sector to develop. The country's macro-economic conditions were significantly improved with an annual average real GDP growth rate of about 5 percent per annum. The rural economies have shown signs of integrating effectively with the formal economy. The overall economy has become increasingly monetised. It is estimated that the GDP of the non-monetary sector declined from 76 percent in 1990 to about 36 percent in 2001[15]. The private sector's confidence in generating wealth for the nation has been gradually restored. There is a renewed confidence, driven by government's commitment to private sector led development and its increasing ability to create an enabling environment for private sector development.

The President's Manifesto for enhancing the prosperity of the nation also played a significant role. President Museveni had tremendous confidence in the private sector and has always insisted that industrialisation is the key to diversifying production, increasing production, creating employment, generating incomes and alleviating poverty. This confidence was recently demonstrated in the 2006 Manifesto of the National Resistance Movement whose main mission is to transform Uganda from a peasant society into a modern industrial society.

Regrettably, however, a corresponding integrated industrial policy was not developed to support the country's industrialisation efforts.

1.6.7 MTCS - 2000-2005 – success indicators and lessons learnt

The Medium Term Competitiveness Strategy (MTCS) of 2000 – 2005 was not a strategy specifically targeting industry. Government's strategic intervention to promote export resulted in a dramatic growth of non-traditional exports, namely cut flowers, fresh vegetables, vanilla, etc. The main export commodities such as cotton, tobacco and tea also recorded increases in production and export earnings (Chapter 2 of this industrial/competitiveness analysis provides more details).

There was an upsurge in foreign and domestic investments. The total level of investments, which was estimated at around 17 percent of GDP in the 1990s, increased to about 20.7 percent of GDP by the end of 2002. Domestic investment accounted for over 80 percent of investments.

It should be noted, however, that very little of such investments was directed to manufacturing. The constraints to industrial development, notably, weak infrastructure, lack of critical human resources, inadequacy of raw materials, high cost of energy and water, still remain. The very factors that influence development, in particular, industrial development, also influence competitiveness.

[15] Ministry of Finance, Planning and Economic Development

The lack of industrial finance and limited access to credit for small and medium enterprise development was a major constraint to development. The MTCS of 2000 - 2005 had as one of its objectives the provision of incentives for the diversification of financial products for SME development, in particular affordable finances[16]. Government effectively implemented a number of initiatives embedded in the Financial Institutions Act, the Micro-Finance Outreach Plan and other financial regulations.

Between 2001 and 2002 for example, the banking sector increased by about 20.5 percent representing a growth of 419 billion Uganda Shillings. Similarly, private sector credit increased from 521 billion Uganda Shillings in 2001 to approximately 661 billion Uganda Shillings in 2002.

Although the private sector became increasingly aware of the factors involved in competitiveness, with the assistance of the Government and the donor community that hosted a number of workshops, the challenges of industrialisation are enormous. Substantial resources should be allocated to improve the enabling environment, establish adequate and appropriate physical infrastructures, including information and communication technological infrastructures to improve knowledge resources.

The Medium Term Competitive Strategy of 2000 – 2005 was not target specific with definite time frames. It was also not industry specific even though the President of Uganda had repeatedly indicated in his Party's Manifesto and in several policy statements that industrialisation is the most effective means to transform the economy of Uganda and to eradicate poverty.

1.7. Medium Term Competitiveness Strategy (MTCS) – 2005 - 2009

The theme for the Medium Term Competitiveness Strategy of 2000-2005 was *"making institutions support private sector growth,"* with a focus on creating an enabling environment for private sector through various economic reforms, providing effective infrastructure and public entities, removing export impediments, improving access to capital, as well as credit for micro and small enterprises. The Medium Term Competitiveness Strategy - 2005-2009 on the other hand would be focusing specifically on certain drivers of competitiveness, especially the factors that have impeded the economic transformation of Uganda. Such factors include infrastructure, knowledge resources, the effectiveness of financial services, and key macro-economic initiatives[17].

The main elements of the Poverty Eradication Action Plan (PEAP) are also reiterated in MTCS - 2005-2009. Sector specific issues are also addressed within the framework of cluster development for industry and the following specific sectors have been identified:

[16] Ministry of Finance, Planning and Economic Development, *Medium Term Competitiveness Strategy (MTCS) 2005 – 2009*

[17] Ministry of Finance, Planning and Economic Development, *Medium Term Competitiveness Strategy – 2005 – 2009 – Draft*

- Agro-processing including fisheries
- Textile and garments
- Mining

It should be noted, however, that the other product areas such as grain, coffee, horticulture and dairy identified for cluster development also have industrial implications.

The Medium Term Competitiveness Strategy for 2005-2009 also focuses on the following areas:

- *Infrastructure and utilities:* - [covering energy, water, transport (road, air, rail and water), information and communication technology];
- *Finance:* with emphasis on improved access to affordable financial services and diversifying the range of financial products for private sector development, as well as provision of business development services for SMEs;
- *Business Regulation:* - more specifically land reform, implementation of the competition law, minimising business regulations and bureaucratic red tape;
- *Investment and export promotion:* - with emphasis on attracting foreign direct investments, generating more domestic investment which currently accounts for the bulk of investment resources; improved access to regional markets; promoting regional trade and producing products that could compete in the global market; developing export processing zones and business parks;
- Creating an enabling environment through macro economic reforms and stability; better governance and economic management;
- Sector specific issues with emphasis on cluster development;
- Value addition and improving market positioning for Ugandan products.

The Ministry of Finance, Planning and Economic Development recognises the uphill struggle of Uganda producers in a competitive world economy, highlighting certain comparative advantages identified in a recent study by the International Trade Centre in 2002. According to the study, Uganda has definitely certain comparative advantages in agricultural primary products such as fresh food. However, the country's ability to compete in manufactured goods is very much impaired. Whether this is valid for all industrial sub-sectors, will be analysed in subsequent chapters of this industrial development/competitiveness analysis.

1.8. Essential elements of an industrial policy

In general, attempts at defining an integrated industrial policy have not been successful. It has been extremely difficult to advance a specific definition of an integrated industrial policy. Different approaches or policy development models have been introduced worldwide. However, in recent years, the policy development process is regarded as a national initiative involving continuous dialogue with and participation of the private sector and other key stakeholders and, not surprisingly, the country's international cooperating partners. Public-private sector dialogue for policy development is therefore, an essential ingredient for effective policy development.

Other essential elements of an industrial policy that should be considered when formulating the policy are the following:

- It should be realistic, taking into consideration the existing capacities and capabilities of the nation, its strengths, weaknesses, challenges and opportunities;

- It should address productivity and growth;

- It should aim at creating an enabling environment for private sector development and capable of attracting both domestic and foreign investments;

- It should encourage creativity and innovation to improve production processes and products;

- It should offer opportunities for employment creation and empowering people, especially those at the district level, including the rural areas to be integrated in the industrialisation process;

- It should be the driving force for economic growth;

- It should encourage the effective development of human resources for industry; such human resources once developed should be utilised and managed not only efficiently but also effectively;

- It should be functional and sustainable and other line ministries with sectoral policies should be able to buy into the policy recommendations enshrined in the integrated industrial policy;

- The policy implementation process should be transparent and all stakeholders should identify with the process;

- The integrated industrial policy should represent the interest of the State, address the interests and concerns of the private sector and also take into consideration the needs of the population at large and their concerns especially quality and environmental concerns;

- Above all, an industrial policy in a competitive global economy should aim at ensuring industrial competitiveness.

In Part II and Part III of this Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness, policy actions for a competitive and sustainable industrial sector will be presented.

2. MACRO-ECONOMY AND INDUSTRY

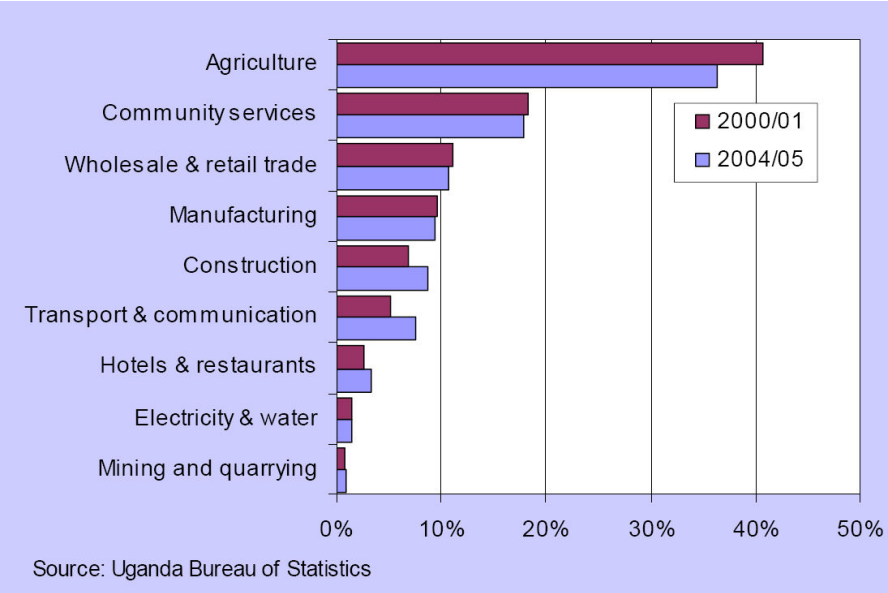
2.1 Basic characteristics of the economy

Uganda's population is estimated at approximately 25.5 million with an annual growth rate of 3.7 percent. It is projected that the population is likely to reach 50 million people in 25-30 years. Life expectancy is 46 years and about 55 percent of the population are under 18 years of age. The population of Uganda is the fastest growing in the East African Community, comprising of Kenya, Tanzania and Uganda. Approximately 87 percent of the population live in the rural areas.

Agriculture is the mainstay of the economy and the country is well endowed with diverse agricultural resources, fish and forest resources, as well as mineral resources, such as coppers, cobalt, limestone, copper, iron-ore, gold and tungsten. Uganda produces large quantities of a variety of food crops including tea, coffee, maize and oil seeds. It is estimated that about 77 percent of the labour force in the rural areas are engaged in agriculture. Agriculture plays a significant role in the economy and grew at an impressive annual growth rate of approximately 5.8 percent in 2003/2004. However, in 2004/2005 a low rate of growth in agriculture was recorded due to poor and sporadic rains during the early months of the rainy season. Agriculture's share in GDP has also declined steadily in recent years, accounting for about 38.5 percent of GDP in 2003/2004 and 37.0 percent in 2004/2005.

Manufacturing on the other hand accounted for approximately 8 percent of GDP with an average annual growth rate of 5.7 percent in 2003/2004. The post and telecommunication sector is a fast growing sector accounting for 36 percent of GDP in 2004/2005. Although the country has large deposits of a number of minerals, the contribution of mining and quarrying to GDP is small. The country's mineral potentials have not been fully assessed and explored.

Figure 2.1: GDP share by economy activity



Given the country's high dependence on agriculture and the potential for agro-processing, it is not surprising that various policies are emphasising the agriculture industry linkage.

2.2 Agriculture and commodities

2.2.1. Coffee

Coffee is one of the major crops in Uganda. It is grown mainly in the Southern and Eastern parts of the country. Both Robusta and Arabia varieties are produced. Coffee production is influenced by weather conditions and bad weather conditions could inhibit growth of the coffee bean, harvesting and drying. In 1996 for example, coffee production reached an all time high of nearly 300 million tonnes. However, in 2000/2001, coffee production was well below 200 million tonnes, but increased by 6.1 percent in 2002 to nearly 200 million tonnes. By 2003/2004, however, production had declined by 13 percent as a result of bad weather. The volume of coffee export also declined by about 15 percent in 2003/2004 as a result of poor harvest and poor preservation methods. Although there was a decline in export volumes, the actual value of coffee exports increased by approximately 8 percent.

Figure 2.2: Production

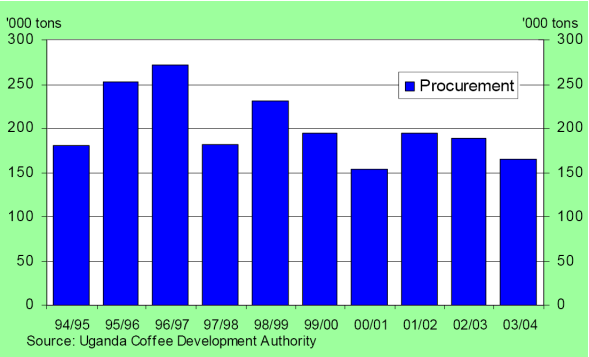
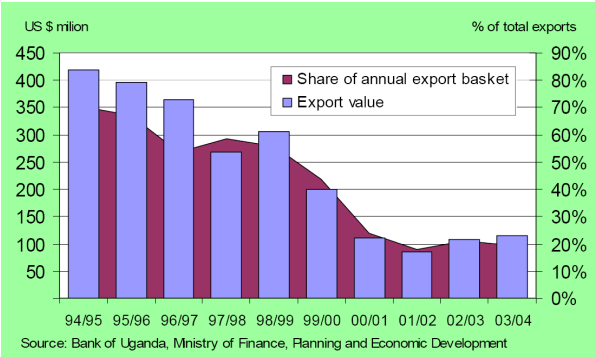


Figure 2.3: Exports



2.2.2. Cotton

Cotton, another major crop, is produced in the Eastern and Northern parts of the country. Production has been rather unstable. In 1998 for example, cotton production declined sharply but subsequently increased in 1999/2000. Another decline in production was experienced in 2000/2001, but in 2001/2002 productions increased by approximately 36 percent to a little over 16 million tonnes.

There was a sharp decline in production in 2002/2003, however in 2003/2004, cotton production increased slightly from 11.3 thousand tons to 11.6 thousand tons. The volume of cotton exported also increased by about 80 percent resulting in export earning of about US$ 41.4 million.

Figure 2.3: Production

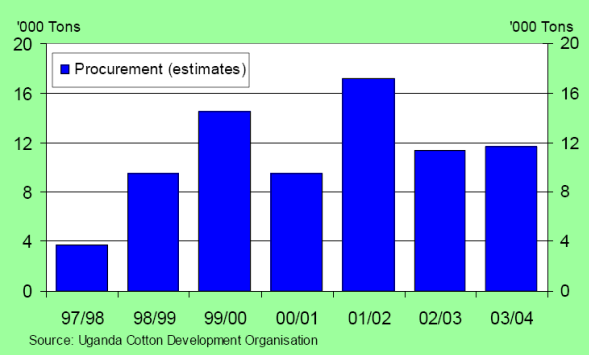
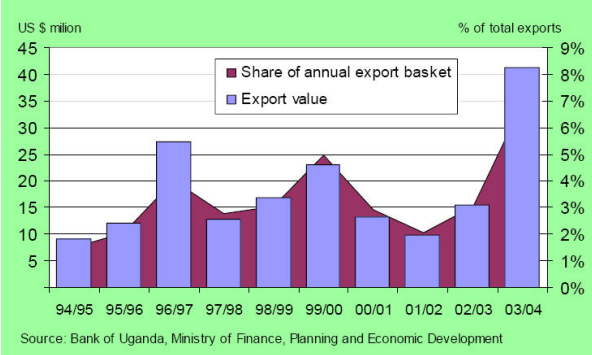


Figure 2.5: Exports



2.2.3. Tea

Tea production, on the other hand, has increased steadily since 1999 with an increase of about 48 percent during a five-year period - 1999-2003. Many small-scale farmers are turning to tea cultivation and large tea estates have improved their management structures resulting in increased output. Export earnings from tea has increased quite significantly since 1994/1995 reaching a peak of US$ 39.3 million in 2003/2004.

Figure 2.6: Production

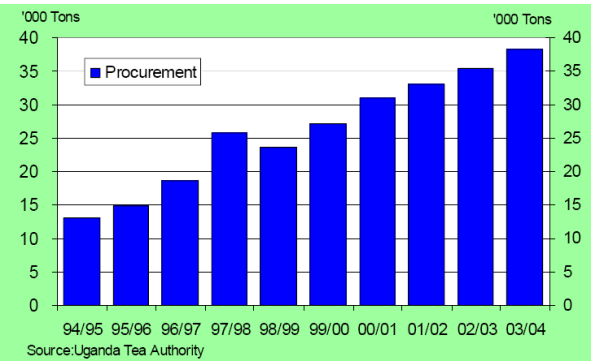
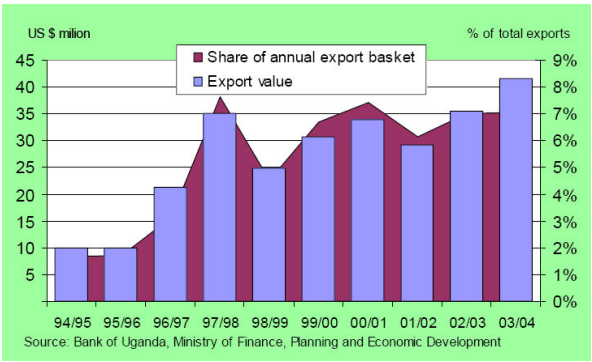


Figure 2.7: Exports



2.2.4. Tobacco

In the early 1990s, tobacco production was extremely low. A major break through in production was experienced in 1997/1998. Since then, tobacco production has increased steadily. In 2002/2003 for example, production increased by about 52 percent of its 2000/2001 levels. Several reasons for the increases have been put forward but it is now generally acknowledged that the main reason was the abolition of the old corporative system and the liberalisation of the tobacco industry. However, in 2003/2004, there was a slight decline of about 1.8 percent in production. Export earnings also declined in 2003/2004 to approximately US$ 36.0 million compared to about US$ 44 million in 2002/2003.

Figure 2.8: Production

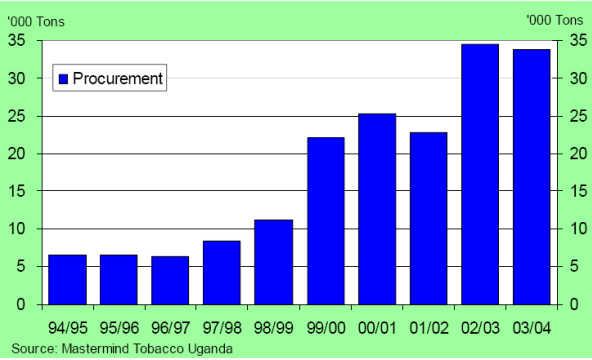
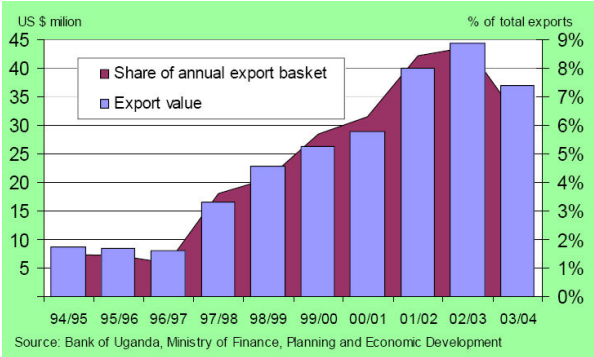


Figure 2.9: Exports



2.3 Commodity exports and balance of trade

Uganda's reliance on a limited number of primary produce such as coffee, cotton, tea and tobacco for exports, whose prices are influenced by external factors often triggers unfavourable terms of trade. The country has taken some major initiatives to reduce raw material commodity exports. In 1992 for example, 96 percent of such commodities were exported compared to 79 percent in 2002/2003[18]. In recent years, both foreign and domestic investments have been attracted to agro-processing. Nevertheless, unfavourable trade balance is still being experienced. In 2002, the highest trade deficit amounting to US$ 606.1 million was recorded. The main reasons were the poor terms of trade, a narrow export production base and heavy reliance on the export of unprocessed produce.

In 2003/2004, total commodity exports increased by 27 percent to US$ 647 million. The increase in commodity exports was a result of the strong growth in most of the commodity export categories.

The volume of maize, tobacco, fish, hides and skins all increased in 2003/2004. The export volumes of coffee and cobalt declined at a time when high prices were recorded. Nevertheless, commodities such as tea, cotton and cut flowers registered increases in both volumes of production and export earnings.

[18] Bank of Uganda
Ministry of Tourism, Trade and Industry/UNIDO,
Uganda Review of Industrial and Trade Performance, April 2005 and second issue 2006.

Figure 2.10: Trade Balance

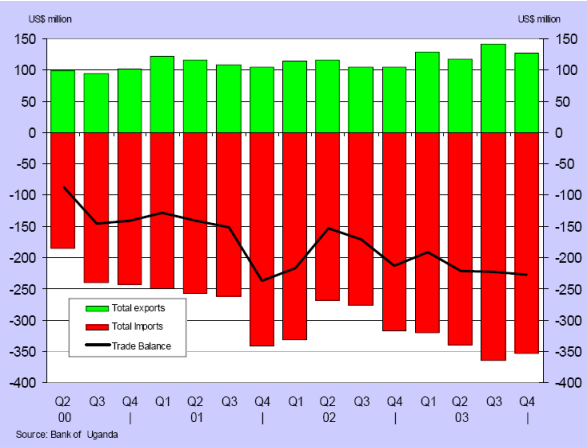
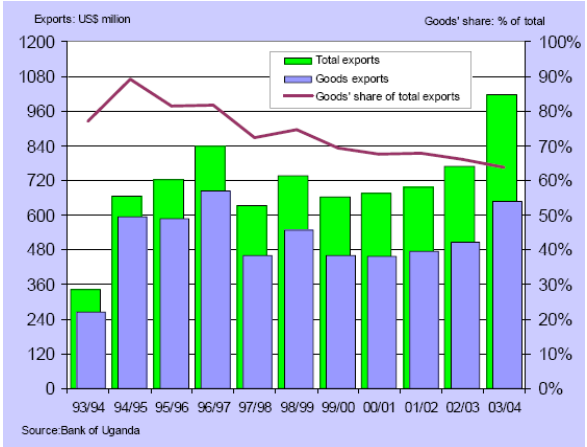


Figure 2.11: Commodity Export



Total exports of goods were estimated at US$ 647.2 million in 2003/2004 accounting for approximately 9.7 percent of GDP. However, total imports also rose by about 17 percent to US$1,321.4 million in the same period. Oil imports also increased by about 3.5 percent in 2003/2004, as did non-oil imports which increased by about 19.3 percent to US$1,021.4 million. The trade deficit in 2003/2004 increased to approximately US$ 674.2 million - some US$ 51.2 million more than 2002/2003.

2.4 Industry and the economy

In the 1960s, considerable efforts were make to diversify the economy through the establishment of basic industries producing such goods as textiles, tea, sugar, beverages, edible oil, wood, paper and paper products, iron and steel, non metallic and metallic products, etc. In 1971, for example, some 940 industrial enterprises were registered. Although some of the industries utilised local agricultural resources, most of them were excessively dependent on imported raw materials and other factor inputs. Industry contributed as much as 12 percent to GDP, and Uganda was one of the few countries in Africa that was reasonably self-sufficient in its basic food needs and capable of exporting processed food and other products such as tobacco, cotton and textile products. Regrettably, the country's import substitutions industries were unable to generate the high level of employment envisaged and did not adequately integrate the agricultural sector. The export promotion industries that were established had some drawbacks as most of the factor inputs were imported. The industries were capital intensive and the country did not have the requisite human resource capabilities to efficiently and effectively operate and maintain the industrial plants and machinery. Nevertheless, the economy was market oriented with the private sector playing a leading role in the industrialisation of the country. The civil war of the 1970s destroyed many of Uganda's industrial plants and infrastructure. Industry was in a deplorable state by 1980.

The 1980s and 1990s witnessed a series of rehabilitation and development programmes aimed at revitalising the economy, in particular, the industrial sector. Major initiatives taken have already been highlighted in Chapter 1 of this analysis.

Although manufacturing now accounts for about 10 percent of GDP, industrial development in Uganda is, however, faced with, inter alia, the following constraints.

- Limited capacities and corresponding capabilities for policy research, policy development, implementation and monitoring (it should be noted that UNIDO is providing support to the Government to enhance such capacities and capabilities);

- Inappropriate policies for increased competitiveness and sustainable industrial development (similarly, assistance is being provided by UNIDO in analysing competitiveness and in defining appropriate policies for sustainable industrial development;

- Inadequate capabilities for effective governance, including industrial and corporate governance and economic management (In 2005, the Ministry of Tourism, Trade and Industry in cooperation with the Ministry of Finance, Planning and Economic Development, the Public Service Commission, the organised private sector and UNIDO organised a consultative forum/training workshop for high level decision makers, aimed at strengthening competitiveness for governance and economic management in Uganda.

- Inadequate technologies for the processing of agricultural and mineral products;

- Lack of entrepreneurship development and SME support institutions;

- Inadequate industrial institutional support services for the development of a competitive industrial sector;

- Limited scope for forward and backward integration of industries and of industry in relation to other sectors, in particular, the agriculture - industry linkage, which is currently extremely narrow.

- Lack of engineering industries, especially industries producing capital goods intermediate goods, spare parts and components, all of which have restricted Uganda's choice of technologies for industrialisation, in particular, for product design, production and maintenance know-how;

- Inadequate skilled industrial human resources, including entrepreneurial capabilities, managerial capabilities, industrial planners, engineers, technologists, technicians, etc.

- Weak technological capacities and capabilities, including information and communication technological capacities and corresponding capabilities.

2.5 An overview of the manufacturing sector

The manufacturing sector comprises of industries producing processed food, beverages, non-metallic minerals, wood and wood products, chemical products, leather and footwear, textiles, wearing apparels, etc.

The manufacturing sector achieved a growth rate of about 3.7 percent in 2000/2003 with significant increase in production of textiles, clothing and footwear, paper and printing, chemicals and other chemical products. Production continued to increase in 2003/2004 with an estimated growth rate of 5.7 percent. The increase in production was mainly due to strong growth in textiles, beverages and basic metals. The paper and printing sub-sector recorded negative growth rates. Employment in the manufacturing sector also increased quite significantly in the year 2000, slowed down in 2001 but recovered in 2002 as a result of increases in employment in the food processing industry and in industries producing cement and bricks. In 2004, employment continued to increase quite significantly.

Figure 2.11: Production

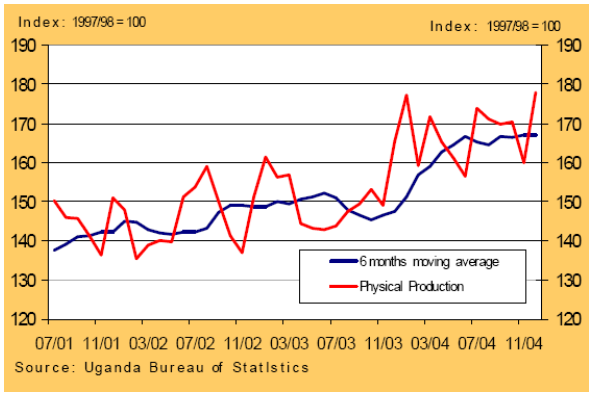
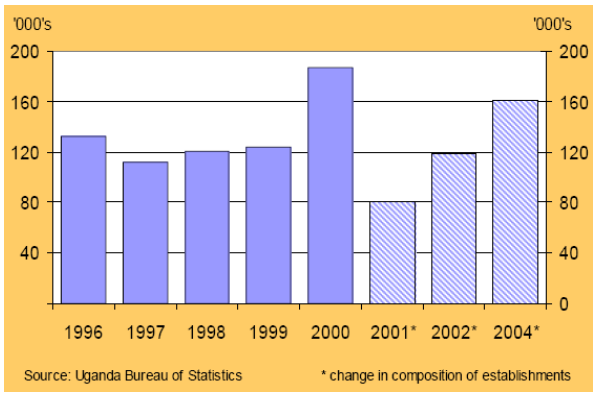


Figure 2.12: Employment



For the last five years, almost every industrial sub-sector has recorded large trade deficits. In 2004, the unfavourable trade balances prevalent in most sub-sectors increased the trade deficit for total manufacturing. The country imported large quantities of petroleum oils representing approximately 13 percent of imports for total manufacturing in 2003 for example. Exports included coffee and fish products, accounting for approximately 48 percent of total manufacturing exports in 2003.

Figure 2.12: International Trade Trends

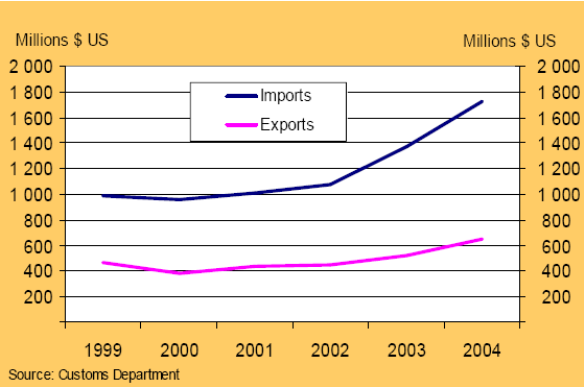
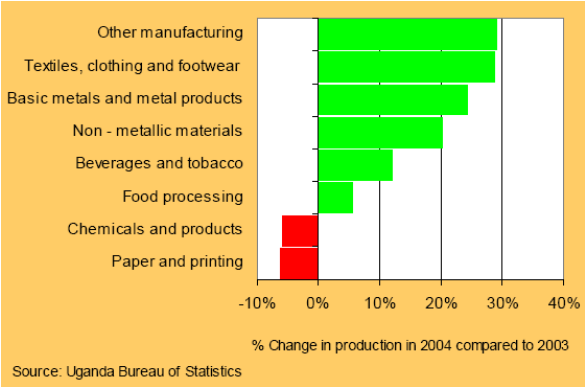


Figure 2.13: Sub-sector Production



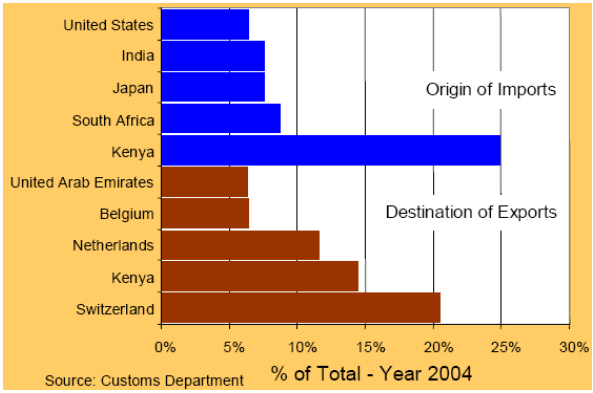
The main export destinations were Switzerland and the Netherlands. Imports were provided mainly from Kenya, India and South Africa.

Fig 2.14: Important Traded Products

HS Code	Imports - Year 2004	US $ million
2710	Petroleum oils and oils obtained from bituminous minerals, other than crude; preparations not elsewhere specified or included, containing by weight 70 %.	213.89
1001	Wheat and meslin.	72.96
3004	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic uses, put up in measured doses or in forms or packings for retail sale.	53.81
8703	Motor cars and other motor vehicles principally designed for the transport of persons	49.57
8525	Transmission apparatus for radio- telephony, radio-telegraphy, radio- broadcasting or television	47.36
	Total imports (including others)	1601.42
	Exports - Year 2004	
0901	Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes containing coffee in any proportion.	124.24
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen.	97.59
7108	Gold (including gold plated with platinum) unwrought or in semi- manufactured forms, or in powder form.	61.20
2401	Unmanufactured tobacco; tobacco refuse.	40.70
0902	Tea, whether or not flavoured	37.26
	Total exports (including others)	530.70

Source: Uganda Bureau of Statistics

Fig 2.25: Important Trading Partners



2.6 Food processing industry

Uganda produces large quantities of a variety of fruits and vegetables, including pineapples, mangoes, passion fruit, maize, beans, tomatoes, etc. Fishery is also a thriving activity and fish processing into fillet and other fish meat are produced for the domestic, regional and international markets.

Production in the food-processing sub-sector has been increasing since the year 2000, although declines in production were registered in early 2003 and mid 2004. However, the sub-sector grew by about 88 percent in 2003. The main food processing units are those producing coffee, tea, fish, vanilla, maize, meat and meat products, dairy products, vegetable oils, etc.

Figure 2.14: Production

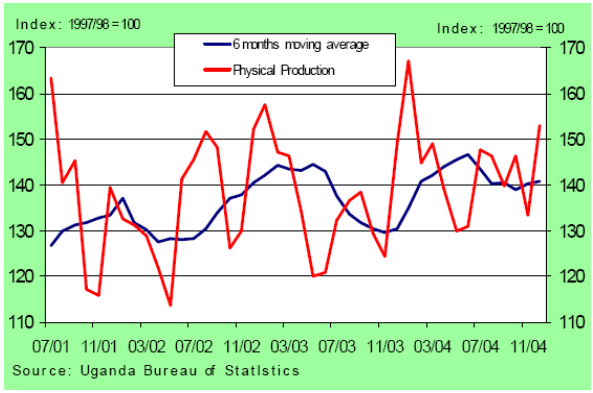
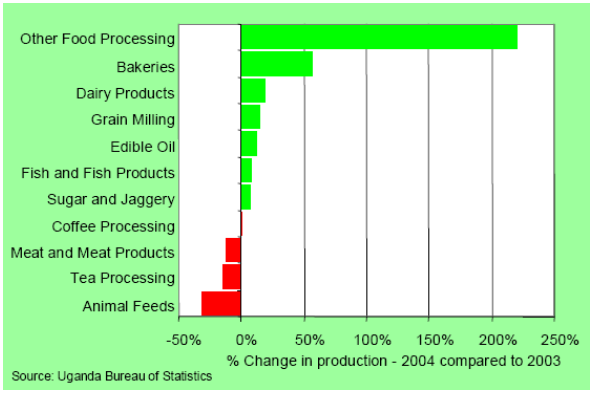


Figure 2.15: Sub-sector Production



Employment in the food-processing sector reached an all-time high in the year 2000 but slowed down drastically in 2001. In 2002, however, employment in this sub-sector increased by over 50 percent as a result of the establishment or upgrading of enterprises producing coffee, vegetable oils and processed grains. The increasing trend continued into 2003 and 2004.

Figure 2.16: Employment

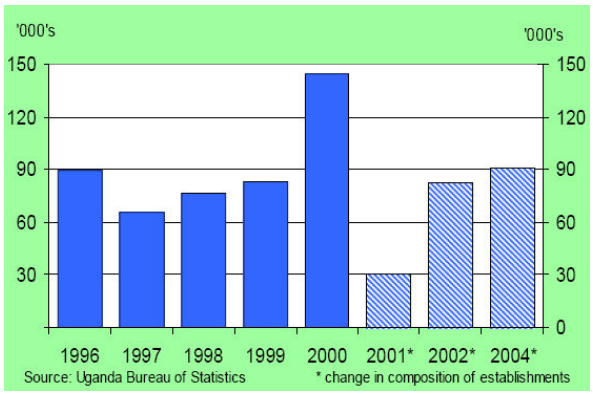
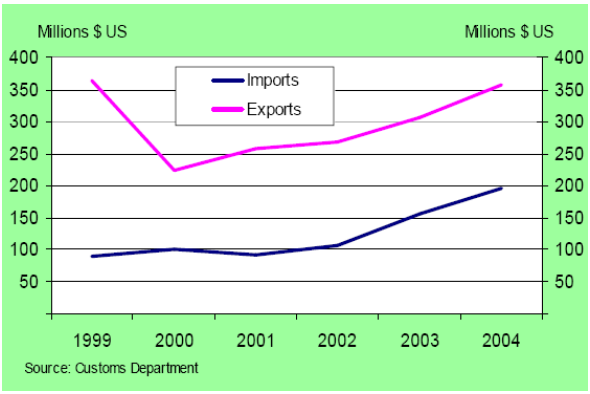


Figure 2.17: International Trade Trends



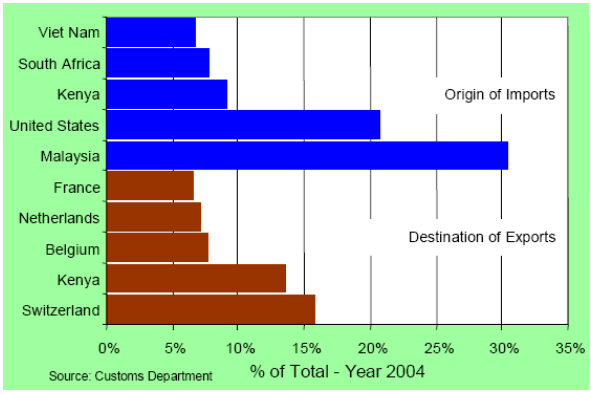
Although exports from this sub-sector was frustrated in the year 2000 which witnessed a decline of 40 percent in exports, there has been a continuous rise in export since then with an increase of about 14.8 percent recorded in 2003 and 16.7 percent in 2004. Some US$ 357.0 million was reordered as export earnings 2004.

Figure 2.18: Important Traded Products

HS Code	Imports - Year 2004	US $ million
1511	Palm oil and its fractions, whether or not refined, but not chemically modified.	41.53
1701	Cane or beet sugar and chemically pure sucrose, in solid form.	19.62
1006	Rice.	17.75
1516	Animal or vegetable fats and oils and their fractions, partly or wholly hydrogenated, inter-esterified, re-esterified or elaidinised, whether or not refined, but not further prepared.	14.10
1102	Cereal flours (excluding that of wheat or meslin):	13.26
	Total imports (including others)	139.78
	Exports - Year 2004	
0901	Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes containing coffee in any proportion.	124.24
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen.	97.59
0902	Tea, whether or not flavoured	37.26
1102	Cereal flours (excluding that of wheat or meslin):	8.31
1404	Vegetable products not elsewhere specified or included.	8.15
	Total exports (including others)	313.89

Source: Uganda Bureau of Statistics

Figure 2.19: Important Trading Partners



Imports also increased in 2004 by about 27.3 percent. The main destinations for exports were Switzerland, Kenya and the Netherlands. Imports were mainly from the USA and Malaysia. The country, however, imported less quantities of food than some African countries.

2.7 Beverages and tobacco industry

This industrial sub-sector is one of the fastest growing industrial sub-sectors in Uganda. It has been characterised with strong growth since 1999 estimated at a rate of approximately 5 percent annually. The tobacco industry has a very high capacity utilisation level. In 2004, this sub-sector grew by approximately 12.1 percent.

Figure 2.20: Production

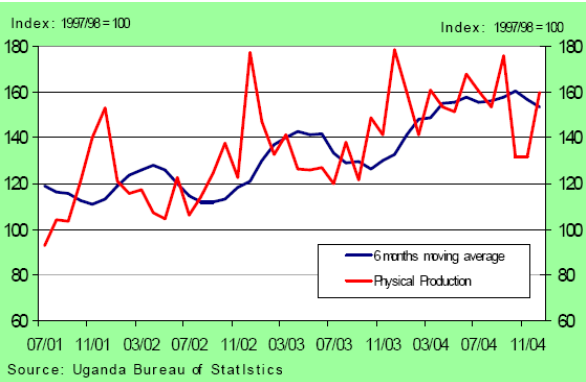
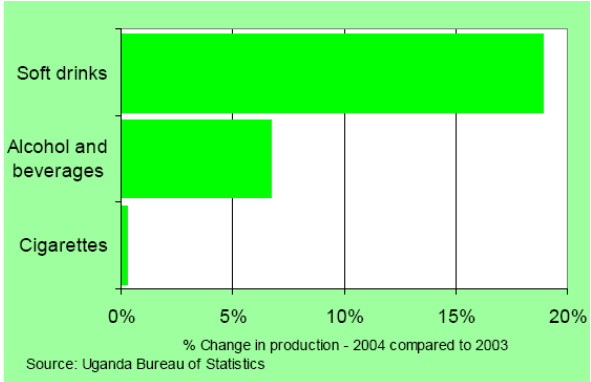


Figure 2.21: Sub-sector Production



Employment in the beverages and tobacco industry has been rather unstable with high levels of unemployment recorded in 2001 to be followed by a drastic fall in the employment figures in 2002. Employment in the sub-sector continued to decline in 2004. The 40 percent decrease in employment was due to the modernisation of soft drinks plants and downsizing in other industries.

Figure 2.22: Employment

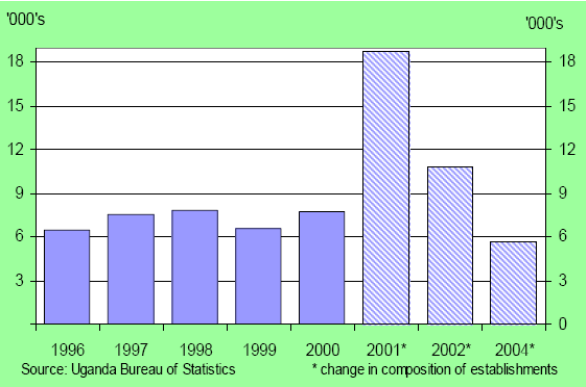
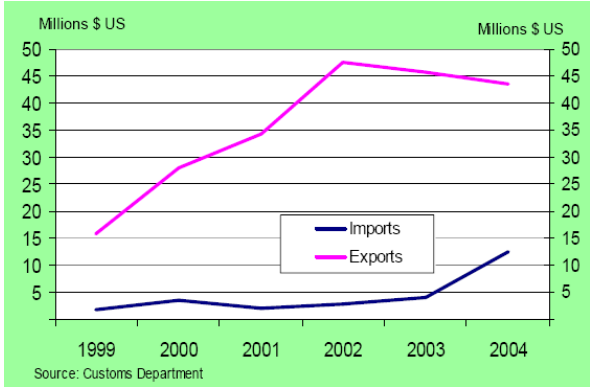


Figure 2.23: International Trade Trends



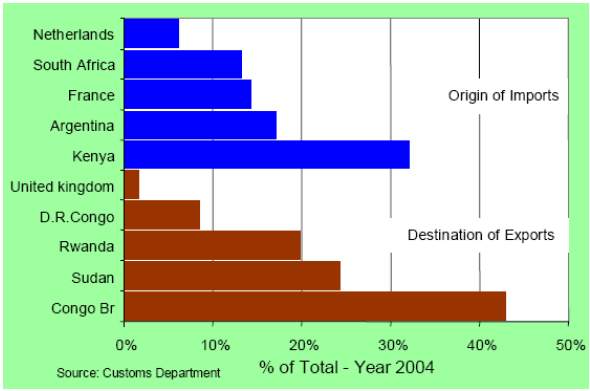
Imports into the beverage and tobacco sub-sector increased in 2003/2004. Exports, of beverages and tobacco products continued to increase since 1999, although a slight decrease of about 3.7 percent was experienced in 2003 as a result of a fall in tobacco exports. The main trading partners were Kenya and the Netherlands for exports. Imports were mostly from Kenya and South Africa.

Figure 2.24: Important Traded Products

HS Code	Imports - Year 2004	US $ million
2203	Beer made from malt.	3.99
2208	Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80 % vol; spirits,	3.05
2207	Undenatured ethyl alcohol of an alcoholic strength by volume of 80 % vol or higher; ethyl	1.56
2204	Wine of fresh grapes, including fortified wines; grape must other than that of heading no. 20.09	1.50
2202	Waters, including mineral waters and aerated waters, containing added sugar or other	0.78
	Total imports (including others)	17.44
	Exports - Year 2004	
2203	Beer made from malt.	1.93
2208	Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80 % vol; spirits,	0.71
2201	Waters, including natural or artificial waters and aerated waters, not containing added sugar or	0.17
2202	Waters, including mineral waters and aerated waters, containing added sugar or other	0.08
2207	Undenatured ethyl alcohol of an alcoholic strength by volume of 80 % vol or higher; ethyl	0.05
	Total exports (including others)	2.94

Source: Uganda Bureau of Statistics

Figure 2.25: Important Trading Partners



2.8 Textiles clothing and footwear industry

This industrial sub-sector relies on both domestic and foreign sources for its raw material inputs. Production has been rather unstable over the years. Between 1998 and 1999, there was a sharp increase in production to be followed by three years of decline 1991-2001[19]. In 2003, however, there was an increase in production, with a growth rate estimated at 14.4 percent. Textiles and garments accounted for a substantial part of the increases in production. In 2004 the textile, clothing and footwear sub-sector experienced a production increase of 28.7 percent as a result of increase in the demand for ginned cotton, textile and garments.

Figure 2.24: Production

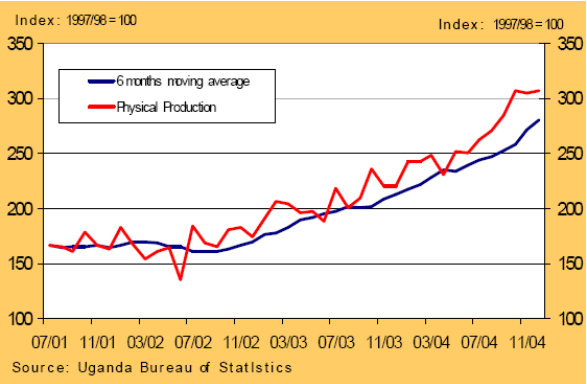
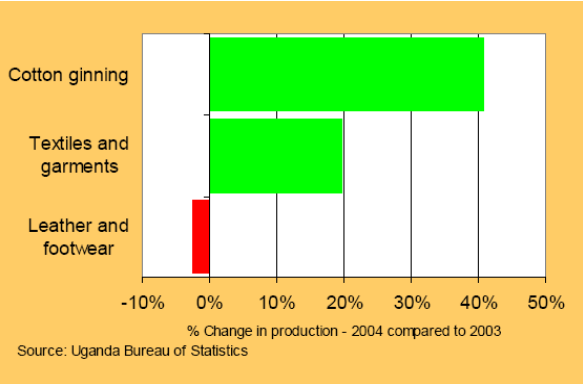


Figure 2.25: Sub-sector Production



Employment, which was more or less stable between 1998 and 1999 began to increase in 2000 with a sharp increase in 2001. The increase in employment was short lived and in 2002, the employment numbers fell drastically as a result of the reduction in the number of people employed in the textile finishing enterprises. The increasing growth trends in production were reflected in the employment figures, which also increased significantly in 2004.

Figure 2.26: Employment

Figure 2.27: International Trade Trends

Exports from the textiles, clothing and footwear sub-sector increased between 2002 and 2003 after a period of decline in 2001. The increasing trend continued into 2004. Export earnings more than doubled in 2004 to about US$ 62.5 million. Textiles accounted for a substantial part of the 15.4 percent increase in export for 2003 and in 2004 with corded and combed textiles as the important trading products. The clothing and footwear industrial units did not perform well. In fact, large quantities of clothing and footwear were imported, between 2001-2003 and in 2004.

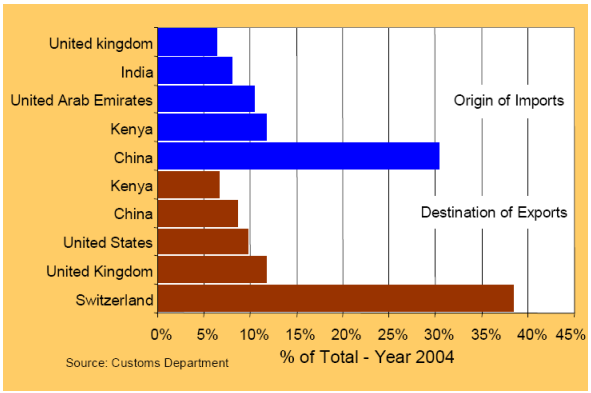
[19] Ministry of Tourism, Trade and Industry and the United Nations Industrial Development Organization – *Uganda Review of Industrial and Trade Performance, April 2005.*

Figure 2.28: Important Trading Products

HS Code	Imports - Year 2004	US $ million
6309	Worn clothing and other worn articles.	26.52
6405	Other footwear.	8.48
5513	Woven fabrics of synthetic staple fibres, containing less than 85 % by mass of such fibres, mixed mainly or solely with cotton, of a mass not exceeding - 170g/m2.	5.82
6402	Other footwear with outer soles and uppers of rubber or plastics.	5.31
6301	Blankets and travelling rugs.	5.31
	Total imports (including others)	113.17
	Exports - Year 2004	
5203	Cotton, carded or combed.	31.53
6203	Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (excluding swimwear):	3.21
6305	Sacks and bags, of a kind used for the packing of goods.	2.16
6309	Worn clothing and other worn articles.	1.90
9404	Mattress supports; articles of bedding and similar furnishing fitting with springs or stuffed or internally fitted with any material or of cellular rubber or plastics.	1.74
	Total exports (including others)	43.93

Source: Uganda Bureau of Statistics

Figure 2.29: Important Trading Partners



The main products exported were corded and combed cotton, hides and skins and other cotton fibres. Switzerland, the United Kingdom and Hong Kong were the main export destinations. Imports, consisting of, inter alia, woven and synthetic fabrics, worn clothing and other used articles, footwear and socks were sourced from China, Kenya and the United Arab Emirates.

2.9 Paper and printing industry

In this sub-sector, there are a number of small-scale processing industrial units producing primarily for the domestic market. The main products are cartons, boxes, paper bags, and printed items. A substantial amount of imported pulp and chemicals are used by the industrial units.

Production fell between 2001/2002 with definite signs of increase by mid 2002. The increasing trend of production continued in 2004 with an increase of approximately 22.5 percent over the 2003 production levels. Paper production, per se, declined as imported paper dominated the domestic market.

Figure 2.30: Production

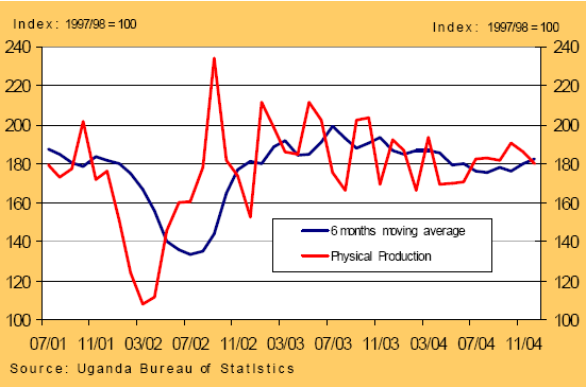
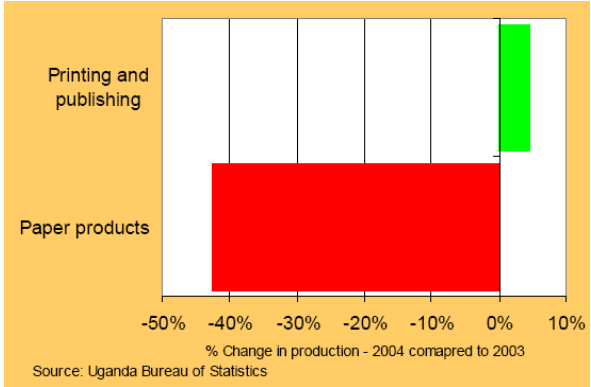


Figure 2.31: Sub-sector Production



Employment in the paper and printing industry was unstable between 1998 – 2002, with a decline of approximately 29 percent in 2002. Employment increased sharply in 2004 as a result of renewed production in printing and pulp paper.

Figure 2.32: Employment

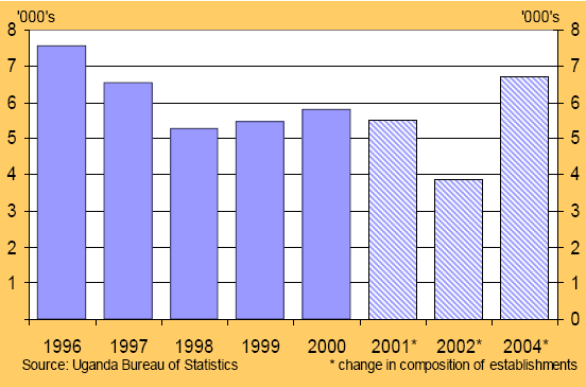
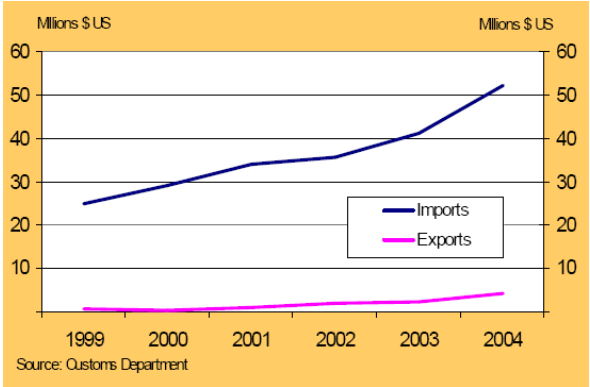


Figure 2.33: International Trade Trends



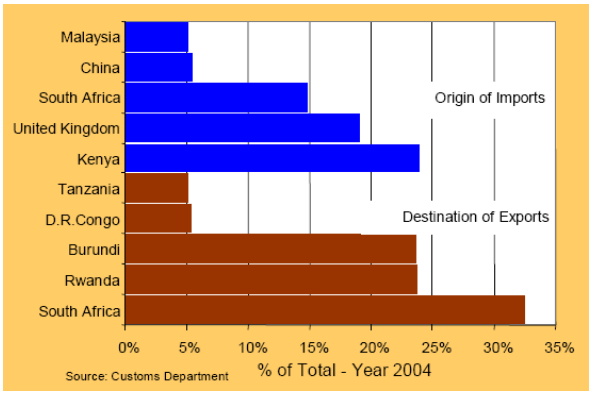
International Trade Trends were not so favourable. Imports rose steadily, thus frustrating any efforts to produce some of the imported items locally. Exports, on the other hand, which were very negligible prior to 2002, increased by about 13 percent in 2003 and about 80 percent of its 2000 levels in 2004.

Figure 2.34: Important Trading Products

HS Code	Imports - Year 2004	US $ million
4907	Unused postage, revenue or similar stamps of current or new issue in the country to which they are destined; stamp-impressed paper; cheque forms; banknotes, stock, share or bond	13.71
4802	Uncoated paper and paperboard, of a kind used for writing, printing or other graphic purposes, in rolls or sheets, other than paper of heading no.48.01 or 48.03;	12.97
4901	Printed books, brochures, leaflets and similar printed matter, whether or not in single sheets.	10.42
4819	Cartons, boxes, cases, bags and other packing containers etc , of paper, paperboard, cellulose wadding or webs of cellulose fibres	8.17
4801	Newsprint, in rolls or sheets.	8.08
	Total imports (including others)	83.26
	Exports - Year 2004	
4820	Registers, account books, note books, order books, receipt books, letter pads, memorandum pads, diaries and similar articles, etc	0.83
4823	Other paper, paperboard, cellulose wadding and webs of cellulose fibres, cut to size or shape;	0.58
4901	Printed books, brochures, leaflets and similar printed matter, whether or not in single sheets.	0.38
4807	Composite paper and paperboard not surface-coated or impregnated, whether or not internally reinforced, in rolls or sheets.	0.28
4819	Cartons, boxes, cases, bags and other packing containers etc , of paper, paperboard, cellulose wadding or webs of cellulose fibres	0.27
	Total exports (including others)	3.19

Source: Uganda Bureau of Statistics

Figure 2.35: Important Trading Partners



The main items imported were uncoated paper and paperboard from Kenya and the United Kingdom. The main export destination, which was usually the United Kingdom, was superseded by South Africa, Rwanda and Burundi.

2.10 Chemicals, petroleum and other chemical products industry

Production in this sub-sector increased gradually from 1998 right up to early 2000. However, between 2000/2001 there was a slight decline in production of about 4.5 percent[20]. Since then however, production has increased gradually with short period of decline in any one-production year.

In 2004, a decline of about 5.8 percent of production levels was reported. With the exception of foam production, all output levels of all other products were lower than expected. However, the pharmaceutical industries and industries producing plastics all registered remarkable increases in production levels for 2004.

Figure 2.36: Production

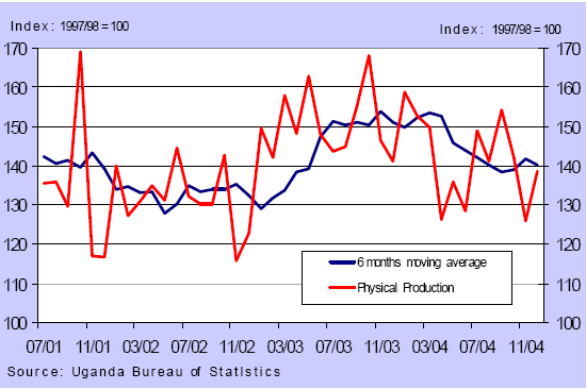
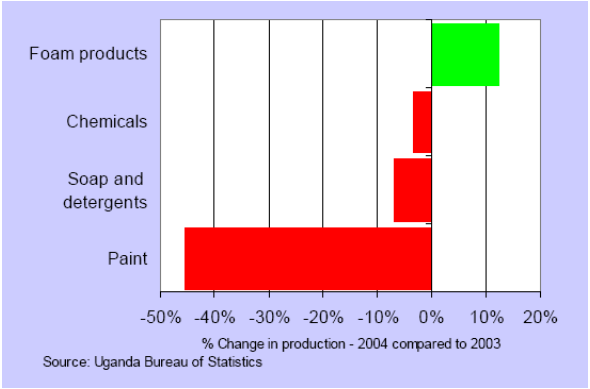


Figure 2.37: Sub-sector Production



[20] *Ibid. Uganda Review of Industrial and Trade Performance, April 2005.*

Employment in the sub-sector declined in 1997 and continued to do so until 2001 when a significant increase was recorded. The poor growth performance of 2001/2002 had a direct impact on the level of employment during the same period.

Figure 2.38: Employment

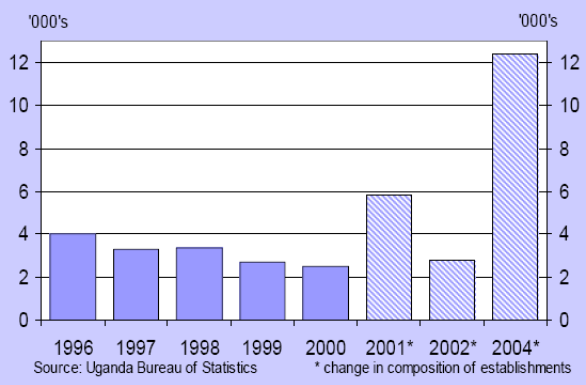
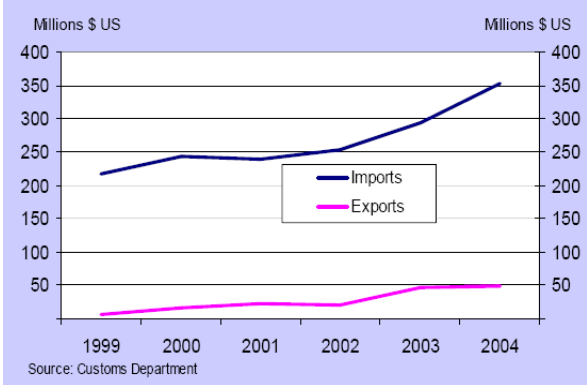


Figure 2.39: International Trade Trends



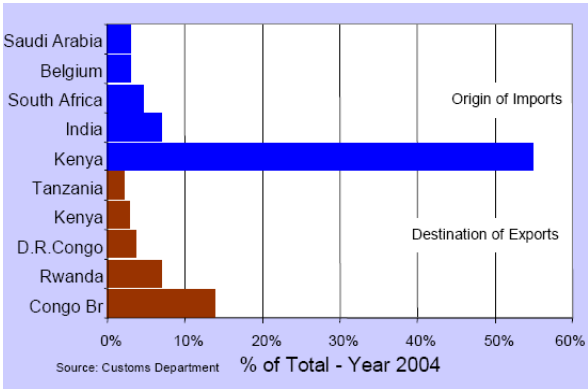
Both imports and exports have been increasing gradually since the year 2001. Exports increased by over 50 percent in 2003 and have remained rather stable since then. The main export destinations were Congo Brazzaville, Rwanda and the Democratic Republic of Congo. Uganda imported large quantities of petroleum oils, some of which were subsequently exported. In 2004, Kenya was the main source of imports.

Figure 2.40: Important Trading Products

HS Code	Imports - Year 2004	US $ million
2710	Petroleum oils and oils obtained from bituminous minerals, other than crude; preparations not elsewhere specified or included, containing by weight 70 %.	213.89
3004	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic uses, put up in measured doses or in forms or packings for retail sale.	53.81
3901	Polymers of ethylene, in primary forms.	18.42
3302	Mixtures of odoriferous substances and mixtures with a basis of one or more of these substances, of a kind used as raw materials in industry etc	17.41
3002	Human blood; animal blood prepared for therapeutic, prophylactic or diagnostic uses etc	14.93
	Total imports (including others)	452.50
	Exports - Year 2004	
2710	Petroleum oils and oils obtained from bituminous minerals, other than crude; preparations not elsewhere specified or included, containing by weight 70 %.	27.95
3401	Soap; organic surface-active products and preparations for use as soap	7.66
3304	Beauty or make-up preparations and preparations for the care of the skin (other than medicaments), including sunscreen or sun tan preparations; manicure or pedicure	1.93
3004	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic uses, put up in measured doses or in forms or packings for retail sale.	1.27
3402	Organic surface-active agents (other than soap); surface-active preparations, washing preparations and cleaning preparations, whether or not containing soap	0.89
	Total exports (including others)	42.75

Source: Uganda Bureau of Statistics

Figure 2.41: Important Trading Partners



2.11 Non metallic minerals industry

The non-metallic minerals industry consists of large production units producing cement and small and medium enterprises producing lime (from limestone) to be used in agriculture, construction, leather and paint production. Between 1998-2002, the non-metallic minerals industrial sub-sector showed very strong growth of approximately 11 percent per annum. During that same period, Uganda was seriously implementing its reconstruction and development programme[21].

Production however, declined in 2002 but increased considerably in 2004 by an impressive growth rate of 20.2 percent. The expansion of construction and building material industries in 2004 resulted in similar increases in employment.

Figure 2.42: Production

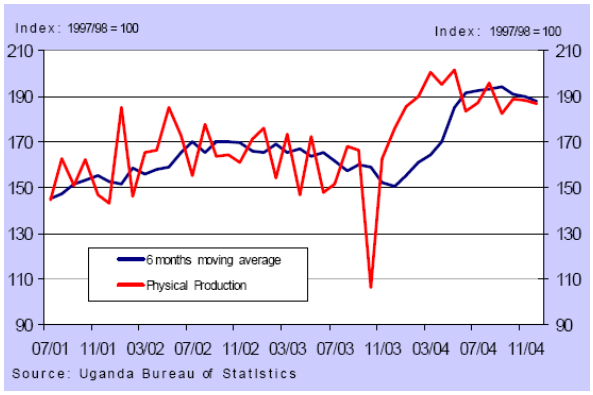


Figure 2.43: Sub-sector Production

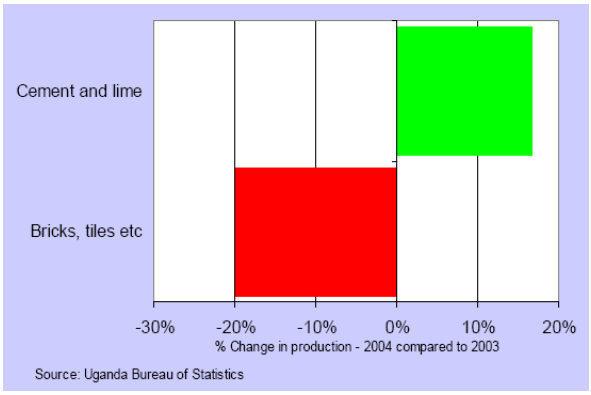


Figure 2.44: Employment

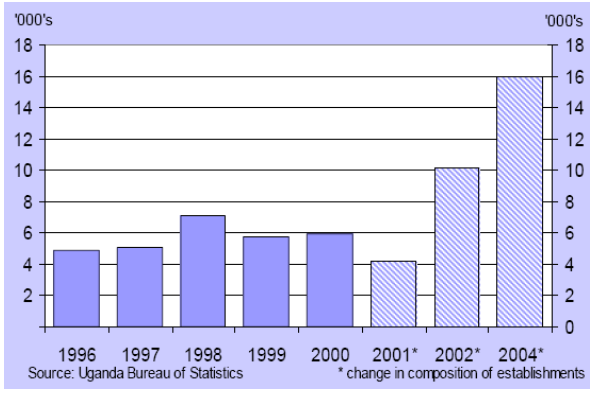


Figure 2.45: International Trade Trends

[21] Ministry of Tourism, Trade and Industry and UNIDO – *Uganda Review of Industrial and Trade Performance, April 2005.*

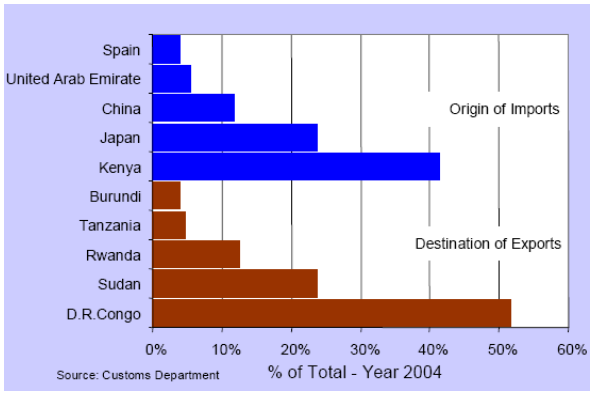
The high demand for construction and building materials encouraged further imports into the sub-sector. The country usually imports much more into this sub-sector than it exports from it. Exports over the years were relatively stable and extremely low when compared to imports. In 2004, imports comprising mainly of cement and related products increased by about 10 percent.

Figure 2.46: Important Trading Products

HS Code	Imports - Year 2004	US $ million
2523	Portland cement, aluminous cement slag cement supersulphate cement and similar hydraulic cements, whether or not coloured or in the form of clinkers.	34.05
6908	Glazed ceramic flags and paving, hearth or wall tiles; glazed ceramic mosaic cubes and the like, whether or not on a backing.	5.16
6910	Ceramic sinks, wash basins, wash basin pedestals, baths, bidets, water closet pans, flushing cisterns, urinals and similar sanitary fixtures.	1.54
2520	Gypsum; anhydrite; plasters (consisting of calcined gypsum or calcium sulphate) whether or not coloured, with or without small quantities of accelerators or retarders.	1.34
6911	Tableware, kitchenware, other household articles and toilet articles, of porcelain or china.	1.27
	Total imports (including others)	50.09
	Exports - Year 2004	
2523	Portland cement, aluminous cement slag cement supersulphate cement and similar hydraulic cements, whether or not coloured or in the form of clinkers.	1.91
6908	Glazed ceramic flags and paving, hearth or wall tiles; glazed ceramic mosaic cubes and the like, whether or not on a backing.	0.05
6905	Roofing tiles, chimney-pots, cowls, chimney liners, architectural ornaments and other ceramic constructional goods.	0.02
6811	Articles of asbestos-cement, of cellulose fibre-cement or the like.	0.02
6910	Ceramic sinks, wash basins, wash basin pedestals, baths, bidets, water closet pans, flushing cisterns, urinals and similar sanitary fixtures.	0.01
	Total exports (including others)	2.03

Source: Uganda Bureau of Statistics

Figure 2.47: Important Trading Partners



In 2004, the main trading partners for non-metallic mineral products were Kenya and Japan for imports. The bulk of the exports were destined for the Democratic Republic of Congo, Sudan and Rwanda.

2.12 Basic metals and metal products industry

Uganda once had a thriving metallic mineral mining and metallurgical industries, which accounted for about 5 percent of GDP and some 8 percent of exports. Copper, iron ore, tin and tungsten were some of the minerals being mined, and, where applicable, preliminary processing was done as in the case of iron and steel. Some of the metallurgical industries have closed down. However, there are a few iron and steel mills and metal working facilities in the country.

Between 1998-2001, production in the basic metal and metal product industrial sub-sector increased considerably, before declining by about 14.5 percent in 2003[22].

[22] Ministry of Tourism, Trade and Industry and UNIDO – *Uganda Review of Industrial and Trade Performance, April 2005.*

Figure 2.48: Production

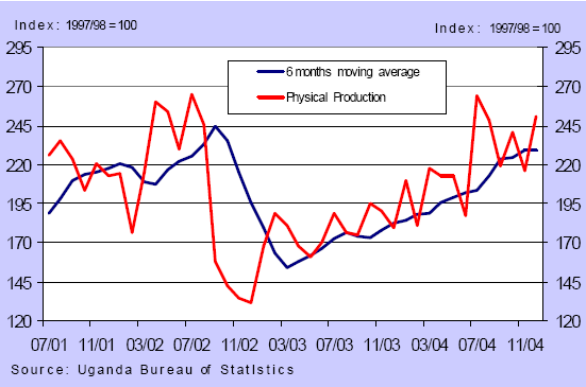
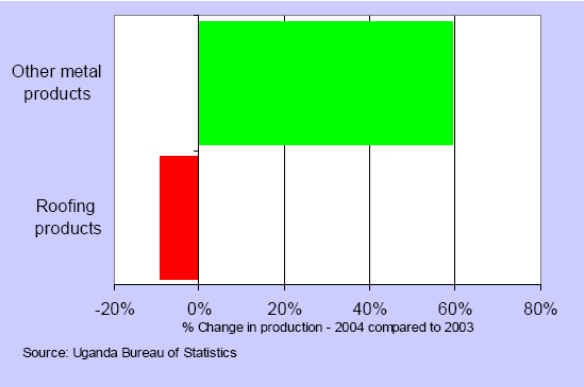


Figure 2.49: Sub-sector Production



After two years of decline, strong positive growth of about 29.2 percent was recorded in 2004. The high demand for iron and steel products was the driving force behind the increase in production levels.

Employment in the sub-sector, which was rather stable between 1998-2000, fell sharply in 2001 and, by 2002, there was a decline of 23.4 percent in the employment figures. In 2004, however, employment in this sub-sector increased considerably.

Figure 2.50: Employment

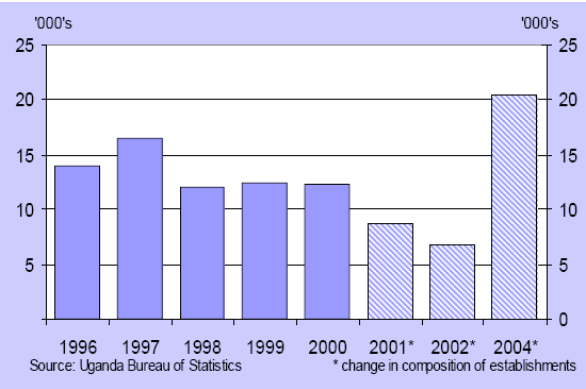
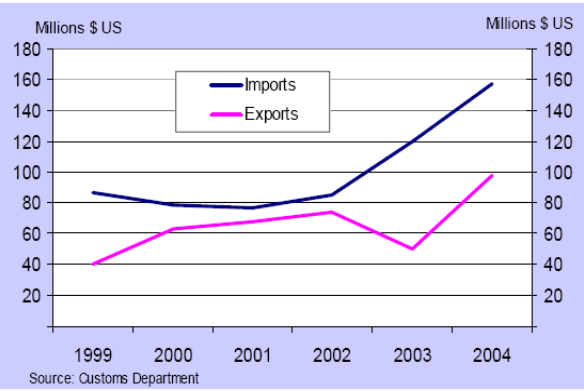


Figure 2.51: International Trade Trends



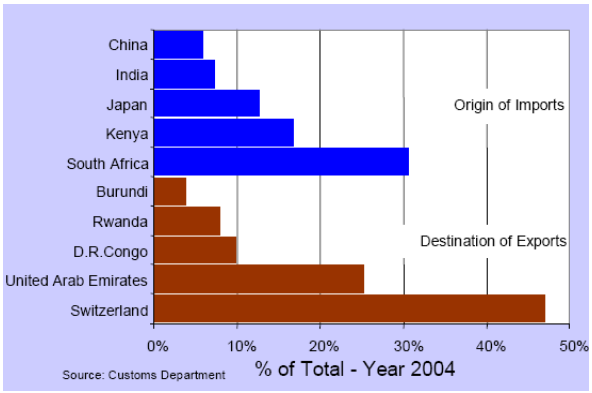
Exports of basic metal and metal products increased gradually from 1998 to 2002. A sharp decline of about 30 percent was recorded in 2003. The decline was overwhelmingly influenced by reduction in exports of non-monetary gold. In 2004, the export of non-monetary gold increased, as well as that of rolled products of iron or non-alloy steel.

Figure 2.52: Important Trading Products

HS Code	Imports - Year 2004	US $ million
7210	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, clad, plated or coated.	26.89
7208	Flat-rolled products of iron or non- alloy steel, of a width of 600 mm or more, hot-rolled, not clad, plated or coated.	22.02
7209	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, cold-rolled (cold-	14.56
7308	Structures (excluding prefabricated buildings of heading no. 94.06) and parts of structures (for example, bridges and bridge-sections, lock- gates, towers, lattice masts, roofs, roofing	11.10
7213	Bars and rods, hot-rolled, in irregularly wound coils, of iron or non-alloy steel.	9.99
	Total imports (including others)	149.69
	Exports - Year 2004	
7108	Gold (including gold plated with platinum) unwrought or in semi- manufactured forms, or in powder form.	61.20
7210	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, clad, plated or	7.17
7306	Other tubes, pipes and hollow profiles (for example, open seam or welded, riveted or similarly closed), of iron or steel.	4.48
7214	Other bars and rods of iron or non-alloy steel, not further worked than forged, hot-rolled, hot-drawn or hot-extruded, but including those twisted after rolling.	3.63
7208	Flat-rolled products of iron or non- alloy steel, of a width of 600 mm or more, hot-rolled, not clad, plated or coated.	0.88
	Total exports (including others)	82.32

Source: Uganda Bureau of Statistics

Figure 2.53: Important Trading Partners



Gold was mainly exported to Switzerland. Imports comprising largely of iron and steel products were sourced from South Africa, Kenya Japan and India.

2.13 Other manufacturing

The manufactured products in this sub-sector include all those products that cannot be accurately classified in the above-mentioned sub-sectors. Examples are motorcars and motor vehicles, transmission parts, electrical products, etc.

Production in this sub-sector which, was normally low in the 1980s right up to the year 2000, began to increase in 2001. In 2004, the high demand for plastic and electrical products accounted for a substantial percentage of the increased production level estimated at 29.2 percent.

Figure 2.54: Production

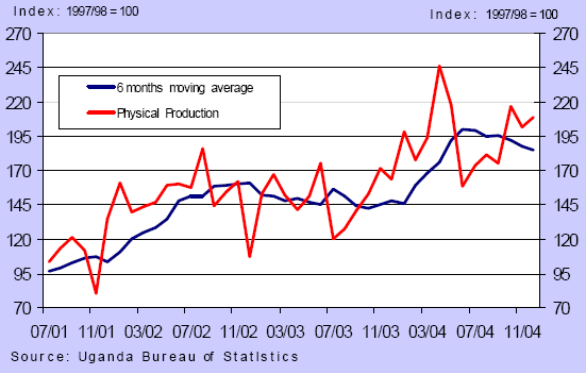
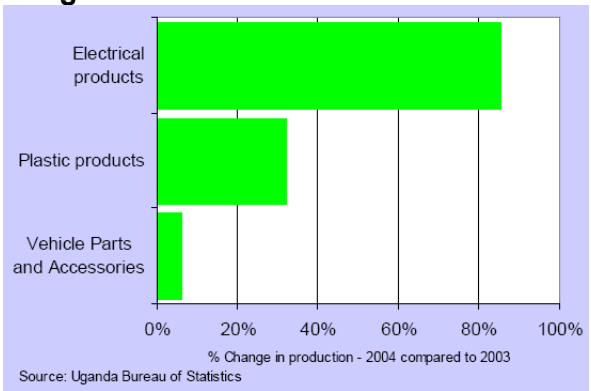


Figure 2.55: Sub-sectoral Production



Employment, which was normally high in this sub-sector, fell drastically in 2001/2002. Labour costs have been increasing in recent years and the introduction of less labour intensive technologies, though considered a viable option, has had devastating effects on the labour market. However, in 2004, employment increased quite considerably influenced largely by an expansion of furniture manufacturers.

Figure 2.56: Employment

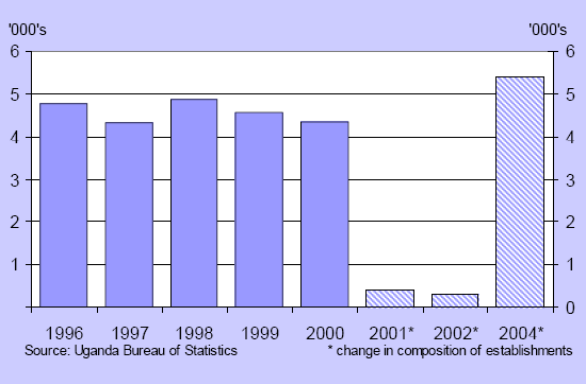
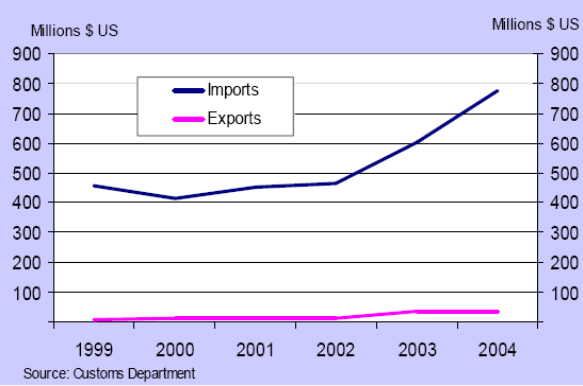


Figure 2.57: International Trade Trends



Production in this sub-sector is usually for domestic consumption, very little of the consumer items in the country are exported. In 2003, export consisted mainly of exports of motorcars and general industrial equipment to neighbouring countries e.g. Kenya and Rwanda. Other export destinations were the United Kingdom, the Democratic Republic of Conge and Tanzania.

Figure 2.58: Important Trading Products

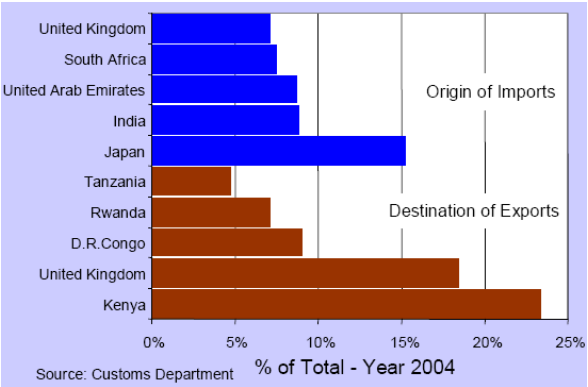


Figure 2.59: Important Trading Partners

HS Code	Imports - Year 2004	US $ million
8703	Motor cars and other motor vehicles principally designed for the transport of persons	49.57
8525	Transmission apparatus for radio- telephony, radio-telegraphy, radio- broadcasting or television	47.36
8704	Motor vehicles for the transport of goods.	45.57
8471	Automatic data processing machines, machines for transcribing data onto data media and machines for processing such data	22.55
4011	New pneumatic tyres, of rubber.	22.03
	Total imports (including others)	585.50
	Exports - Year 2004	
9015	Surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances; rangefinders	5.05
8525	Transmission apparatus for radio- telephony, radio-telegraphy, radio- broadcasting or television	3.51
8703	Motor cars and other motor vehicles principally designed for the transport of persons	3.11
8459	Machine-tools for drilling, boring, milling, threading or tapping by removing metal	2.93
8704	Motor vehicles for the transport of goods.	1.99
	Total exports (including others)	39.65

Source: Uganda Bureau of Statistics

Imports to this sub-sector were usually high with 2003 showing a significant rise in the value of imported items in the country. The increasing trend was maintained in 2004. The main imports, as should be expected, were motor vehicles. Imported goods were mainly from Japan, India, United Arab Emirates, South Africa and the United Kingdom.

2.14 Micro, small and medium enterprise development

The private sector is expected to play an important role in the economic development and industrialisation of Uganda. The private sector in Uganda, however, covers not only the 'large' and medium enterprises, but micro and small enterprises as well. Most of the micro and small enterprises are operating in the informal sector. They are known to utilise more domestic raw materials, labour and other inputs more intensively than the 'large' or medium enterprises in the country. The indigenous entrepreneurs in Uganda are mainly interested in micro and small enterprises which are labour intensive and require less sophisticated technologies, as well as low investments, unskilled and semi-skilled labour. Micro and small enterprises' contribution to production and employment in Uganda is therefore quite significant.

Micro and small enterprises are to be found in every district of the country and in the capital Kampala. They vary from small rural enterprises to small urban enterprises employing 1-10 employees, in most cases, and 10 or more employees. The Ministry of Finance, Planning and Economic Development in Uganda has defined micro and small enterprises as follows:

- Micro enterprises are those enterprises that are usually owned by a sole operator for income generating purposes. *"They are business undertakings employing less than five people of the family members. The value of assets, excluding land, buildings and working capital is below 2.5 million Uganda Shillings; the annual turnover is below 10 million Uganda Shillings which is the threshold for business related tax[23]".*

- *"Small enterprises are enterprises employing a maximum of 50 people in terms of value of assets excluding land and building and working capital is less than 50 million Uganda Shillings; annual income turnover is between 10-50 million Uganda Shillings[24]. These enterprises are formally registered and operate fully the whole year and are managed by educated/skilled/trained managers*.

It is estimated that there are more than 800,000 micro and small enterprises (MSEs) in Uganda, employing about 1.5 million workers[25]. It is also estimated that micro and small enterprises account for about 20 percent of the GDP. An annual growth rate of about 20 percent is also recorded for MSEs in Uganda. It should be noted that not all of the 800,000 MSEs are in industry or industry related activities. A good number of them are in trade, both wholesale and retail, hotels, bars and related services. The Uganda Bureau of statistics conducted an MSME survey in 2001/2002

[23] Government of Uganda: - Micro and Small Enterprise Policy Unit, MFPED. "*Policy Paper on the Development of Micro and Small Enterprises"* – February 2002
[24] Ibid - Government of Uganda: - Micro and Small Enterprise Policy Unit MFPED
[25] Government of Uganda – Micro and Small Enterprise Policy Unit MFPED, *"Policy paper on the development of micro and small enterprises*

highlighting the number of businesses and employment in micro economic activity as follows:

Table 2.1: Number of Business and Employment Size Band by Industry Group

ISIC Group	Employ-ment	No. of business-es	Employ-ment	No. of business-es	Total Employ-ment	Total Business-es
Agriculture	241	90	14,542	359	14,783	449
Fishing	130	84	869	90	999	174
Mining & quarrying	423	406	1,186	21	1,609	427
Manufacturing	18,773	9,543	68,358	2,425	87,131	11,968
Utilities	9	7	3,435	16	3,444	23
Construction	247	92	7,093	155	7,340	247
Wholesale & retail trade	147,368	104,461	30,907	3,025	178,275	107,486
Hotels, bars & restaurants	34,829	18,512	19,302	1,971	4,131	20,483
Transport & communication	1,144	502	12,754	332	13,898	834
Finance & insurance	716	294	7,384	245	8,100	539
Real estate & business services	4,012	1,861	16,167	553	20,179	2,414
Education	606	251	8,997	228	9,603	479
Health & social work	5,505	2,601	11,891	672	17,396	3,273
Community, social & personal services	19,822	11,609	7,408	477	27,230	12,086
Not Defined	0	1	0	0	0	1
Total	**233,825**	**150,314**	**210,293**	**10,569**	**444,118**	**160,883**

Source: Uganda Bureau of Statistics, Report on Uganda Business Registrar, 2001/2002

2.14.1 Problems and constraints of micro, small and medium enterprises (MSMEs)

Some of the major problems and constraints to economic development and industrialisation in general also impact negatively on MSME development. In a recent assessment by the Ministry of Finance, Planning and Economic Development, a number of major constraint to the development of and growth in the MSME sector are listed as follow:

- Lack of savings and limited access to credit facilities;
- Limited access or no access to training and extension services, more specifically on technology and enterprise management;
- Inadequate information on possible business opportunities; available support services, technologies, policy support and programmes for MSE development;
- MSEs are not properly organised for effective public private partnership and advocacy;
- Inadequate infrastructure and high cost of infrastructure;
- Poor business practices, accounting and procurement of raw materials, as well as distribution outlets;
- Inappropriate policies for MSE/MSME development and unfavorable business environment for MSEs to thrive;
- Unavailability of skilled/trained labour;
- HIV/AIDS and its effects on labour, productivity and consumption patterns;
- Limited use of ICT in MSME development.

In recognition of the above-mentioned constraints, the Government of Uganda, in particular, the Ministry of Finance, Planning and Economic Development, has defined an SME Policy Framework focusing on the following:

- Creating an enabling business environment;
- Improving financial service delivery;
- Improving training, advice and extension service;
- Promoting technology development and transfer;
- Disseminating information

The policy recommendations in the Policy Paper prepared by the Ministry of Finance, Planning and Economic Development will be the basis of the Policy for Micro and Small Industries Development to be defined in Part III of this Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness.

2.15 Industry and gender mainstreaming

The gender gap in production, in particular industrial production, is a major constraint to development. Women represent about 57 percent of the population of Uganda and undertake about 80 percent of food production at the farm level and in micro non-farm food processing. Their involvement in industry is extremely small, accounting for less than 10 percent of industry's contribution to GDP. Women are also engaged in textiles and garment production but the technologies used in production of textiles and garments do not take into account the gender dimension and women find them difficult to work with. In common with other African countries, women in Uganda have tremendous entrepreneurial capabilities. About a third of the adult female population are engaged in some entrepreneurial activity. But, in a society where gender roles are still socially constricted and culturally influenced, women's participation at the enterprise or factory level could be restricted. Basically, their work is closely related to household production, especially with regard to food production. Given the number of hours spent in balancing the two acts, namely, household management and food production, it is not surprising that women's productivity is sometimes constrained by the pressures and influences of household work and food production. This does not mean that women do not have the potential to produce more and become a key contributor to industrialisation.

There are other factors limiting the participation of women in industrial development. For example, the gender division of labour tends to follow strict lines in industry. Men tend to work in areas involving the use of technology, in sales and in management. Women are often employed in routine work, for example in textiles spinning, finishing, cutting and, in other industrial sub-sectors, they are more involved in washing up, cleaning, packing and clerical activities.

The allocation of land for business/entrepreneurship is tied to capacities to develop such land. Women have restricted access to credit and may not have the requisite collateral to back such land acquisition. A recent survey on gender and growth assessment in Uganda estimated that women own only about 7 percent of land in Uganda[26]. Given that women represent 57 percent of the population, serious and effective gender analysis and planning should be carried out. Women are also being restricted to the use of poor and archaic technologies with little or no protection. They are often exposed to occupational hazards and health risks.

A World Bank study entitled – *Uganda: From Periphery to Center, A Strategic Country Gender Assessment*[27] states that, *"gender inequality also affects the implementation of Uganda's Strategic Exports Initiative"*. The Poverty and Social Impact Assessment (PSIA) also noted that supply response sought under the strategy was limited by gender inequality, as the strategy failed to recognise that one of the principle determinates of response is the way incentives are mediated at household and community levels, by negotiated relationships of cooperation and conflict between men and women.

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[26] Gender and Growth Assessment – *Uganda. A gender perspective on legal and administrative business and investments*
World Bank – Office of the Sector Director, *Poverty Reduction and Economic Management*. Africa Region - *Uganda From Periphery to Center - A Strategic Country Gender Assessment, March 2005*

The number of women attending vocational and technical schools is extremely low. It is believed to be less than 30 percent. This makes it difficult to advocate for affirmation action in technical or skilled labour recruitment in industry. It is, therefore, highly desirable to promote organisational change and core values in industry to transform mainstream gender assumptions and cultural factors that prevent women from succeeding in industry as skilled workers, managers and owners of factories and industrial enterprises.

3. UNDERSTANDING AND ANALYSING COMPETITIVENESS

3.1 Globalisation

The globalisation of economic and business activities, which began to emerge in the 1980s, is one of the most important trends in the world economy. Prior to the 1980s, it was trendy to refer to the global process of economic activities as "internationalisation" or "transnationalisation". Nevertheless, the processes are similar as they all involve a complex network of cross-border interactions in political, economic, financial, social and cultural activities. In the economic sphere, it is now generally acknowledged that globalisation is a process by which production and markets in different parts of the world and in different countries are becoming increasingly interdependent due to the flows of capital and technology and the dynamics of trade in goods and services. Thus, global economic trends pose new challenges for industries and governments, in both the developed and developing countries. The most important challenge is the globalisation of economic and business activities with emphasis on private sector driven development. Other challenges include the localisation of competitive advantage in industry; the continuous improvement of information and communication technologies; discontent with traditional economic development policies and the need for policies that address the concerns of government, the business community and the people; the realisation that neither the government nor the private sector, per se, could transform the economies of the countries of the developed and developing world.

Globalisation has revolutionised international trade especially as developing countries, through trade liberalisation and reform programmes, have opened up their economies to international trade. International trade is becoming increasingly important to every country's prosperity. The global economy is driven by information and communication technology, without which effective governance and economic management could hardly be achieved. With globalisation, world trade has increased significantly; foreign direct investments, including foreign portfolio investments have increased; multinational firms or transnational firms have expanded their operations in Eastern Europe and Asia in particular. This rapid pace of globalisation is tied to technological change, in particular, information and communication technology (ICT).

Although economic activities, worldwide, have increased, the countries of Africa, including Uganda, have not taken advantage of the opportunities offered by globalisation. These countries are yet to bridge the digital divide to benefit from globalisation. Existing industries are faced with greater competition at home and in foreign markets. The enhanced mobility of capital, made possible through globalisation, means that both governments and firms must compete for capital in the global market. The processes involved are, however, complex and costly, which makes it unlikely that African countries can compete effectively for such resources. African countries do not only lack the capital resources, they also lack technology and advanced skills to take full advantage of globalisation, become competitive and access global markets.

3.2 Defining and measuring competitiveness

What is competitiveness?

Competitiveness has been narrowly defined as international cost and price competitiveness that is measured by a country's real exchange rate based on relative unit labours cost. The real exchange rate reflects the differences in labour productivity among countries. This argument may be of relevance to emerging economies whose major objective is to increase their share of manufactured goods and exports in the world market. Various definitions of competitiveness have emerged since the 1990s. The Competitiveness Policy Council in the United States defines competitiveness as *"the ability to produce goods and services that meet the test of international markets while our citizens earn a standard of living that is both rising and sustainable over the long run."* This definition is, to a certain extent, valid as countries can only take advantage of global trends (mentioned earlier in this analysis) if they are able to generate, retain and attract economic activities that will enable them to prosper. This in fact implies competitiveness in a few areas of economic activities. This definition of competitiveness is rather restrictive but it implies that it is firms and businesses that compete and not countries.

Other definitions of competitiveness have recognised the importance of an existing and sustainable enabling business environment, thus, emphasising that countries do not compete with each other. Instead, firms operating in an international business environment or operating in a competitive international economy with all the complexities and intricacies of international trade do compete. By operating in a dynamic environment, industrial firms will encourage productivity improvements, encourage and manage creativity and innovation, thereby ensuring that firms will continually strive to improve their performance.

The World Economic Forum (WEF) has constructed a competitive index of about 60 countries. The WEF argues that countries that are competitive are usually those countries that have the underlying economic conditions to achieve rapid economic growth for a number of years, taking into account their starting income. This implies that competitiveness and economic growth are complementary. Some economists have questioned the accuracy of the competitiveness indices. They argue that the competitiveness indices have weak theoretical and empirical foundations. They also argue that the competitiveness indices could not be used for policy analysis.

The International Institute of Management is responsible for the publication of the World Competitiveness Yearbook. The Institute does not subscribe to the WEF's view that there is a strong correlation between competitiveness and economic growth. The Institute argues that economic growth, per se, cannot determine a country's competitiveness. Rather, economic growth is one of the factors determining competitiveness. According to the Institute, there are other critical factors that should be taken into consideration such as:

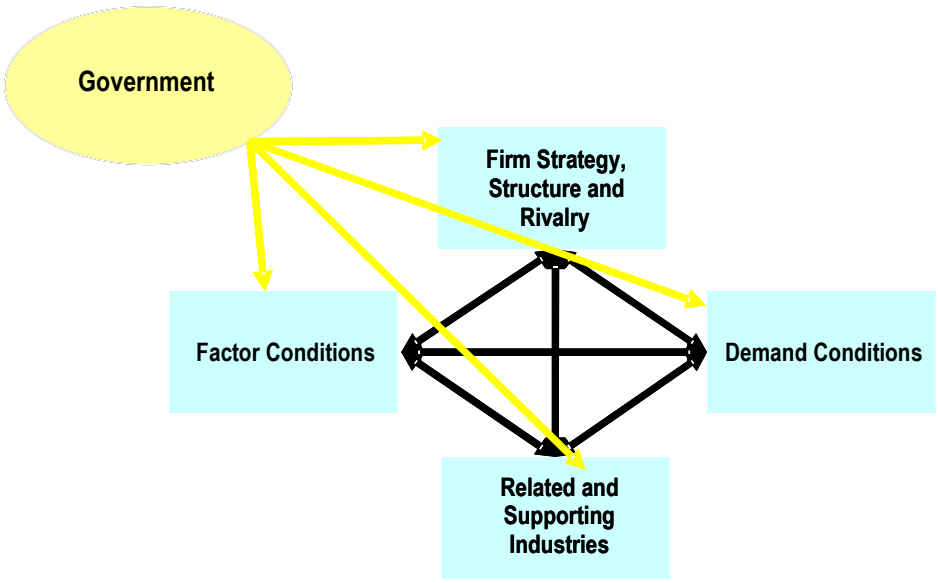
- Domestic economic strength
- Quality of government
- Financial and macro-economic stability
- Degree of internationalism
- Infrastructural development
- Managerial and leadership capabilities
- Scientific and technological capabilities
- Human resources – quality of human skills.

The competitiveness of an industry within a country would depend on a number of factors that should help the industry to succeed. Such factors include, the availability of specialised labour, technology, infrastructure, the growth and quality of capital investments to ensure sustainability, the productivity of the work force, the efficient and effective utilisation of raw materials, the pressure of a network of supporting industries. Some economists also argue that competitiveness of an industry or firm could depend on the nature of the industry and the existence of specific favourable conditions that would ensure that the industry succeeds[28].

3.3 Competitive advantage

Michael Porter in *"The Competitive Advantage of Nations"(1990)*[29] provides the best framework on competitiveness, in particular, a framework to determine the drivers of industrial competitiveness. Porter argues that the development potential of a country or an economy is determined by its ability to foster competitiveness, generate, retain and attract economic activities that will ensure prosperity. The Porter framework is illustrated as the '*national diamond'* with four broad attributes, which individually or collectively could create a platform that, enables an industry or industries in a country to develop and compete nationally or internationally. The four broad attributes could be used to determine the drivers of competitiveness. The four broad attributes that could influence the environment in which industries operate are illustrated below. An additional factor is that Government also impacts positively or negatively on the four broad attributes:

[28] Meyer Stainer, J.J. Altenberg and W. Hildenore, 1998 *"Building systematic competitiveness concepts and case studies from Mexico, Brazil, Paraguay, Korea and Thailand*. German, Development Institute, Berlin.
[29] Michael Porter, 1990 *The Competitive Advantage of Nations,* New York, Free Press.



Factor conditions - These are the basic factor endowments that are prerequisite to efficient and competitive production. They are the Nation's factors of production such as human resource (labour) physical resources, (land, mineral resources, raw materials, water, etc); infrastructure, capital resources and knowledge resources.

Demand conditions – These are the nature of domestic demand for industrial products, as well as for services. The structure of demand, the size and rate of growth of demand are also important. Government demand and export opportunities are also considered important elements of demand conditions.

Related and supporting Industries - The presence within a country of supplier and related industries considered as competitive industries; support services, such as financial services, the provision of market information, information and communication technologies (ICT).

Firm strategy, structure and rivalry - This determinant actually refers to the conditions in a country that govern how companies are organised and managed, including corporate governance, cluster development and cooperation, as well as domestic rivalry.

Government - This fifth determinant refers to government's interactions with industry through interventions or the absence of interventions. Government is the main agent for development. It can influence the above-mentioned determinants of factor conditions, demand conditions, related and supporting industries and firm strategy, structure and rivalry.

According to Porter, the different factors of the 'diamond' are interrelated and they actually reinforce each other. An advantage in any factor of the 'diamond' could impact positively on any of the other factors. The four factors of the 'diamond' are interrelated and mutually dependent. Where there is a high demand for a product in

a country or internationally, it is likely that the government of that country will take policy decisions that are favourable to export promotion and also attract foreign investments. Similarly, where there are a number of dynamic rival industries in a particular sub-sector, consumers are likely to have multiple choices and better quality products. This, in the long run, will improve the level of sophistication of domestic demand.

3.4 Drivers of competitiveness

Since the 1990s, variations of Michael Porter's analysis of the national *'diamond'* have emerged. The systematic view of competitiveness presented by Porter has been revisited. Some of the researchers involved in the analysis of *"The Competitive Advantage of Nations"* have identified other elements of competitiveness in a nation or in a given country. Michael Enright, for example, recognises that Porter's analysis provides a framework that has proven useful in analysing competitiveness in the developed countries, primarily because Porter's analysis focused mainly on the developed economies. However, Porter's framework, as presented, may not be quite appropriate for the developing countries of Africa, because of the level of development of these countries and the nature and scope of their economies. Porter's framework/ analysis could only be useful if other critical factors or drivers of competitiveness are taken into consideration. Enright has suggested a set of drivers that could help the developing countries to succeed. The following are the main examples[30].

3.4.1 Supranational – level drivers

These set of drivers are usually beyond the scope or control of a particular country and are influenced by multilateral organisations, multilateral cooperation, foreign governments (donor countries), international finance flows and trade blocs. Enright indicates that in assessing industrial competitiveness, the main issue is whether the economy in question is favourably or unfavourably positioned with respect to relevant competitors in the supranational drivers that affect the industry under investigation[31]. In his view, the degree to which a country can work closely with its international cooperating partners to secure knowledge, best practice, policy advice and finance could actually influence the country's ability to compete. Uganda's close ties with the countries of the East Africa Community (Kenya and Tanzania); its relationship with other countries in the Eastern and Southern African sub-region, as a member of the Common Market for Eastern and Southern African States (COMESA) and its endorsement of the New Partnership for Africa's Development (NEPAD), in the context of its membership of the African Union, can all influence Uganda's development goals and industry's competitiveness. As a member of

[30] *Public-Private Partnership for Economic Development and Competitiveness with Special Reference to the African Experience, UNIDO 2000.*
[31] *Public-Private Partnership for Economic Development and Competitiveness with Special Reference to the African Experience, UNIDO 2000.*

COMESA, Uganda can enjoy certain privileges and advantages that could contribute to the competitiveness of certain industries. The existence of multinational corporations with investments in Uganda can also contribute to the competitive performance of the industries in which they have investments, through the provision of modern technological processes, innovative skills, managerial competencies and by facilitating access to regional and international markets.

3.4.2 Macro – level drivers

As the name implies, these are macro-economic conditions - drivers that operate at the national level, cutting across industry and other sectors. They include government policy instruments, policy environment and policy institutions that should be in place if a country is to succeed in developing its economic potential and achieve competitiveness[32]. Examples of these are the existence or non-existence of an industrial policy with clearly defined strategy and an action plan; the availability of foreign exchange; interest rates; inflation rate and the exchange rates of the country's currency. In addition, the existence of macro institutions especially educational, training and research and development institutions could also impact positively or negatively on competitiveness.

3.4.3 Micro/industry – level drivers[33]

These drivers are sector specific and involve factors such as industry level cooperation, micro-level policies, strategic grouping and institution of relevance to the development of the industry. If there is competition among firms of a particular industry, there is always a desire to improve production process, the quality of the product and marketing. Such competition could be disastrous or healthy, depending on the environment. However, it is likely that in such situations, inefficiencies could be eliminated and firms that are efficient could be encouraged to develop, thereby allowing stronger firms to compete with other similar firms at the sub-regional, regional or international levels. However, competition could be disastrous if there is no room for cooperation. In developing countries such as Uganda, firms should cooperate with each other in areas such as export promotion, market intelligence, research, the provision of certain kinds of infrastructure and, of course, training.

[32] Ibid – *Public-Private Partnership for Economic Development and Competitiveness with Special Reference to the African Experi*ence, UNIDO 2000

[33] *Public Private Partnership for Economic Development with Special Reference to the African Economies, UNIDO 2000*

3.4.4 Meso/cluster – level drivers[34]

These drivers are relevant to a related set of industries. They are industries operating within the same vertical production chain or closely related to ensure significant spill over or economies of scale. They include various inputs that are available to local industries, the nature of demand, the level of competition, cooperation among institutions, the ability to share resources and activities, as well as policies and institutions at the, meso or cluster levels. In any economy, where there is superior access to land, capital, infrastructure, technologies, including knowledge resources and support services, there is a definite source of advantage to industrial enterprises and they will become competitive.

Cluster development also encourages firms to become competitive. Cluster development involves a high level of interaction among industrial enterprises. Resources are shared among the same or related industries in a cluster; industries tend to join forces to develop human resources, procure raw materials, conduct market research, etc.

3.4.5 Firm level drivers[35]

As indicated earlier, firms compete not countries. Firms or industrial enterprises should "be able to exploit locational advantage and overcome locational disadvantages[36]. Countries can create a favourable environment for industries to thrive. The existence of macro-economic stability and favourable factor conditions are meaningless if industries are unable to take advantage of such favourable conditions to improve production in terms of quality and quantity and compete at the country level, subregional and regional levels, as well as at the international level where appropriate. Enright indicates that, *"the strategies and organisation of firms can be heavily influenced by the corporate governance system present in the economy. Such system creates numerous influences on the behaviour of firms and managers. Governance systems that reward innovations and improvements rather than special relationships and non-transparency are those most likely to send signals to firms, consistent with fostering competitive industries and high development potential"*[37].

It should be noted that in his analysis of the competitive advantage of nations, Michael Porter also addressed most of the issues addressed in the above-mentioned five categories of drivers of competitiveness. Porter's framework and the various drivers mentioned above, and how they apply to Uganda will be analysed in Chapter 4 of this competitiveness analysis.

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[34] *Public-Private Partnership for Economic Development and Competitiveness with Special Reference to the African Experience, UNIDO 2000.*
[35] *Public-Private Partnership for Economic Development and Competitiveness with Special Reference to the African Experience, UNIDO 2000.*
[36] *Public-Private Partnership for Economic Development and Competitiveness with Special Reference to the African Experience, UNIDO 2000*
[37] Ibid

3.5 Competitiveness analysis, objectives and framework

In any given country, competition is driven by many factors such as the existing structure of the market, the effectiveness of policies, in particular, the implementation of such policies, the demand conditions, especially the attitude of consumers of the products, the rate of innovation, the extent to which the economy is opened to international trade and its ability to attract foreign investments.

The nature and implications of these factors imply that government has a significant role in ensuring macro-economic stability and in creating an environment in which industries/companies can improve productivity and be encouraged to innovate and produce at competitive prices.

The principle focus of this competitiveness analysis is, therefore, the competitiveness environment of Uganda highlighting, in particular, the advantages and constraints inherent in the business environment and the overall enabling environment, as well as the potentials for direct investments in industry. In this regard, Porter's 'diamond', including some variations of Porter's thesis as explained earlier will be used to assess the competitiveness platform of Uganda and industries ability to compete.

This competitiveness analysis draws considerably from an industrial enterprise survey/competitiveness, survey conducted by the Economic Policy Research Centre (EPRC) of Makerere University on behalf of the Ministry of Tourism, Trade and Industry and the United Nations Industrial Development Organization. The survey of approximately 144 industrial enterprises, representing the major industrial sub-sectors in Uganda was conducted between January and May 2005. Twelve industrial sub-sectors were covered. The Uganda Bureau of Statistics (UBOS) provided a list of enterprises for the survey. Initially, some 393 industrial enterprises were identified and provided with the questionnaire for the survey. However, only 144 enterprises completed the questionnaire, which also included a separate survey on human resources. The detailed structure of the questionnaire is illustrated in Annex A of this competitiveness analysis - Questionnaire for Industrial Enterprise/Competitiveness Survey.

A team of experts drawn from the Economic Policy Research Centre and the Ministry of Tourism, Trade and Industry also visited some of the enterprises in the fourteen districts identified for the survey. Large, medium and small enterprises participated in the survey. The geographical distribution of the enterprises selected is illustrated below. Many of the enterprises are in the Kampala area (about 40 percent) and approximately 8 percent in Jinja.

Figure 3.1: Regional Distribution of Survey

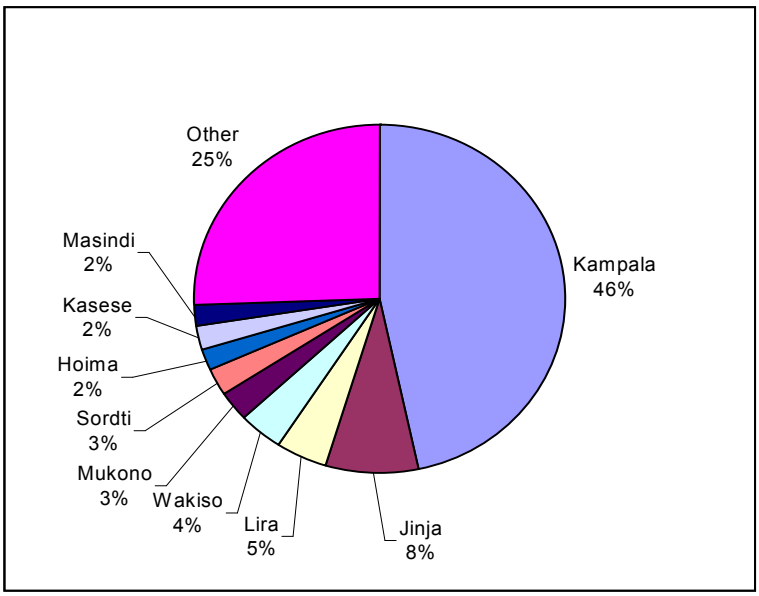
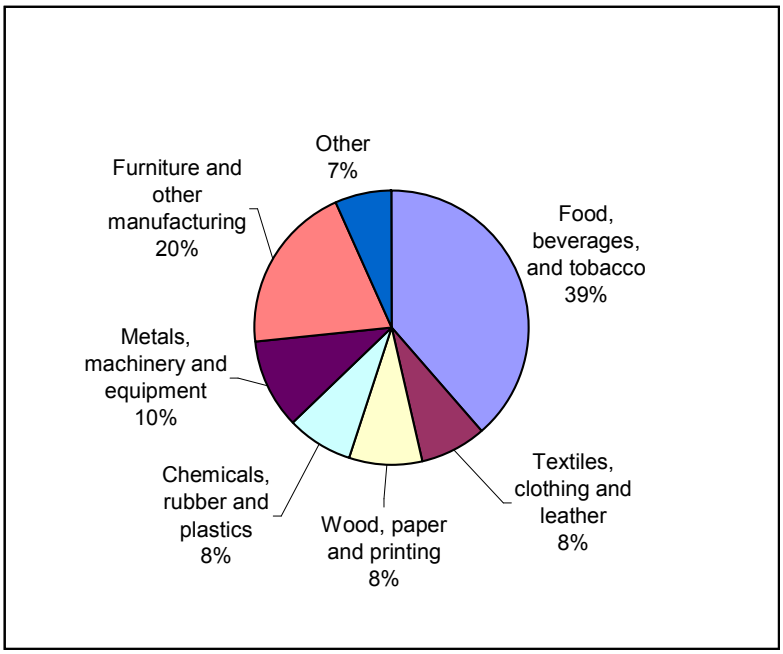


Figure 3.2: Sub-sectoral Distribution of Survey



The high concentration of industrial enterprises in the Kampala area should be expected as investors prefer to locate their enterprises nearer to markets, industrial support services, or in the case of Jinja, near to raw materials, electricity and other infrastructural facilities. During the survey, it was observed that industries were being established along the Mbaara - Kampala – Jinja – Iganga highway.

Thirty-five percent of the enterprises surveyed are in food processing. Products being processed include meat, fish, grain, coffee, tea, etc. Some 10 percent of the enterprises are engaged in the production of fabricated metals, machinery and equipment. Another 8 percent of the enterprises are in textiles, clothing and leather goods production. A similar percentage (8 percent) is in the chemical industrial sub-sector, producing refined petroleum products and other chemical goods.

It was quite apparent during the survey that many of the 393 industrial enterprises that received the questionnaire were sceptical of the intended purpose and end use of the information to be provided. Many were also convinced that, in common with past experiences, the information provided would not be used by the Government to define the country's industrial policy. They were, therefore, reluctant to release data and provide other industrial information pertaining to their individual enterprises.

The result of the survey is presented and analysed in Chapter 4 of this industrial development/competitiveness analysis and will be used to assess the competitiveness platform of Uganda, as well as the country's potentials to be competitive in a few industrial products.

4. UGANDA'S COMPETITIVE PLATFORM

In the last Chapter, the various approaches to competitiveness are succinctly analysed. Given that Uganda already has a core of manufacturing industries in key industrial sub-sectors that produce for both the domestic and regional markets and, in a few cases, the international markets, industry could be the main driving force for economic growth, development and poverty eradication. Uganda has the potential to take advantage of opportunities offered by globalisation. However, the global market is a highly competitive market, therefore, competitiveness success of industries in Uganda would depend on whether such industries have a competitive advantage in production, in productivity growth, especially in terms of the cost of production, the quality of the products, prices and efficiency, in particular, the timely delivery of quality goods at competitive prices. Industries, per se, would not be able to achieve competitive success. The national environment in which they operate has a major role in ensuring competitive success. As stated earlier in Chapter 3 above, there are certain determinants which, individually or collectively, could create a platform for the country's industries to compete locally and externally. According to Michael Porter whose framework will be used in this competitiveness analysis for Uganda, the different elements of the platform are interrelated and mutually dependent. He further states that when there is an interplay of advantages in several determinants, namely, factor conditions, demand conditions, firm strategy, structure and rivalry, as well as in related and supporting industries, industrial enterprises are more likely to produce good quality and competitive industrial products for the home markets, as well as for the sub-regional, regional and international markets.

4.1. Factor conditions

Factor conditions, according to Porter and other exponents of the competitiveness of countries, could be grouped into a number of categories, as follows:

- Human resources
- Capital resources
- Physical resources
- Infrastructure
- Knowledge resources

It is argued that a country's endowment with such factor conditions is one of the most significant indicators of the country's ability to compete. However, the existence of these factors does not necessarily result in competitive advantage. The important determinant is the nature of the factors. In his analysis, Porter makes a distinction between basic and advanced factors and generalised and specialised factors. Basic factors require relatively modest investments. These include human

resources, both skilled and semi-skilled and natural resources. Advanced factors enable a country to produce distinctive products and involve high investments in production technology, for example. The very existence of such factors would enable requisite capabilities in an industry or industries to be creative and innovative rather than continue with the usual routine of the production functions. They help to improve on design, production technologies and production processes to achieve competitiveness. Therefore, a sustained investment in human resource could contribute enormously to strengthening industry's capacity to innovate. On the other hand, the specialised factors are considered to be highly specific skills and knowledge resources. They also include the existence of specific infrastructures that are of relevance to the efficient functioning of an industry. The generalised factors refer to those factors that can be employed in a wide range of industries, for example the existence of a core of well-motivated engineers in information technology or engineering design.

Porter argues that it is unlikely that a particular country will create and upgrade all the above mention types and varieties of factors with the share intention of improving competitiveness, as there are other determinants that can influence the upgrading or creation of such factors. Examples of such determinants are the domestic demand conditions, the nature and scope of domestic rivalry among industries, firm structure, corporate strategies and goals. However, the inadequacy of certain types of factor conditions should not necessarily be a disadvantage. Experience in some countries have shown that disadvantage in one or more factors could be an inspiring force for innovation or creativity. In Japan, the just in time delivery system was adopted to overcome the shortage of land for warehouses and stock piling. Similarly, the horticultural industry in the Netherlands was able to overcome the lack of sunshine all year round through the introduction of highly sophisticated greenhouses.

4.1.1 Human resources

It is now generally acknowledged that the availability of qualified and skilled human resources is a prerequisite for development, industrialisation, technology acquisition and use, as well as industrial competitiveness. In Uganda, the Poverty Eradication Action Plan 2004/2005 – 2007/2008 recognises that a healthy and well-educated population is a necessary condition for development and it is also a central objective of development[38]. In recent years, the Government of Uganda has invested heavily on primary education and adult literacy. In common with other African countries, however, human resource for the transformation of the economy is a major constraint. There are shortages of professionals, skilled and semi-skilled human resource including managerial and entrepreneurial skills. According to the Ministry of Finance, Planning and Economic Development, *"Planning is the responsibility of the sector and will be strengthened by the availability of a long term expenditure framework which projects the overall resources envelope for future years"*[39].

[38] Ministry of Finance, Planning and Economic Development – *Poverty Eradication Action Plan 2004/2005 – 2007/2008*
[39] ibid – *Poverty Eradication Action Plan 2004/2005 – 22207/2008 Dec. 2004, page 149*

The argument here is that the shortage of skilled human resources should be addressed by all sectors providing goods and services to the nation - "*All sectors should ensure that the skills provided by the sectors match national economic needs".* The question remains whether the educational system in Uganda is functional and geared towards production of goods and servi*ces.*

i) Education

The Government of Uganda is committed to achieving the Millennium Development Goal of universal education by 2015, including elimination of gender disparities at all levels. What are the existing realities and to what extent were they influenced by historical developments?

On gaining independence, Uganda inherited from the British, a system of education that developed slowly throughout the 1970s, 1980s and 1990s. Taking into consideration the political and economic conditions of the country, the British General Certificate of Education at the ordinary level (GCE 'O' level) exam was transformed into the Uganda Certificate of Education (UCE) and the British General Certificate Education at the advanced level (GCE 'A' level) became the Uganda Advanced Certificate of Education (UACE). The latter is the principal examination required for University entrance and other tertiary level education.

The education sector itself comprises of the Ministry of Education, a number of agencies and an extensive network of government owned and private educational institutions. Education for all, in particular, primary education is a basic human right in Uganda. It is enshrined in Article 30 and 34 of the Constitution and reiterated in the Vision 2025 for Uganda's development. A substantial percentage of government resource allocation for education is spent on primary education. The District Authorities are expected to deliver primary education. The number of children enrolled for primary education has increased from 3 million in 1997 to over 7.7 million in 2005. The number of children from the lowest income group has also increased from 50 percent in 1992 to about 83.7 percent by the year 2000. The gender gap in enrolment at that level has also been reduced significantly. However, the retention of children enrolled for primary education and actual success rate right up to Primary 7 level is still a problem. It is estimated that only about 22 percent actually complete primary level education. Although school fees are borne by the Government, there are other costs of education such as uniforms, transportation, meals, examination fees etc. which cannot be met by parents or guardians. The Government of Uganda, in particular, the Ministry of Education plans to improve the quality, efficiency and access to primary education.

At the secondary level, it is estimated that there are about 840 government aided schools in 760 sub counties and over 2100 private schools with a total enrolment of 855,346 students in 2005.. Government aided schools have over 26,400 teachers about 15,060 of which are actively on the Government's payroll. The remaining number of teachers, over 10,000 teachers are recruited and paid locally by parents

through boards of governors and parent teachers association[40]. A large part of the education and training at the secondary level is funded by the private sectors, principally religious and community based groups. Except for a handful of elite based institutions, education and training institutions at the secondary level cater principally for the poorer sectors of the community. Secondary education is not widely available. It is estimated that about half of the sub-counties in the rural areas do not have access to secondary education. The gender disparity in secondary education is more pronounced than in the primary level. Boys represent some 60 percent of students at the Level 5 (55) and level 6 (56) of secondary education, and between 20 to 35 percent at level 51 and Level 54. The following is an indication of enrolment trends in Uganda.

Table 4.1 Trends in Enrolment in Secondary Schools in Uganda

Year	Private	Government	Total
1999	170,000	240,000	410,000
2000	228,931	290,000	513,931
2001	230,000	309,400	539,786
2002	240,060	317,806	607,866
2003	347,240	336,362	683,609
2004*	361,137	349,816	710,953
2005*	375,582	363,809	739,391
2006*	390,605	378,361	768,966

*** projected**
Source: Ministry of Education and Sports – 2004

Although there are more privately owned schools than government owned schools, it should be recognised that the Government has constructed more schools, improved on existing facilities and established more science laboratories in secondary schools. The Government is also concentrating its efforts on providing education to children who would not have access to private education. It plans to construct an additional 60 secondary schools between 2005 and 2009, rehabilitate existing facilities especially in rural areas, add new classrooms and laboratories in existing schools and to provide for a students' bursary scheme catering mainly for the needy but bright and gifted students. The target is for approximately 7,544 students to receive bursary by the year 2008.

Tertiary education is delivered by 16 licensed universities including the world-renowned Makerere University. There are a number of colleges and programmes, estimated at around 35 institutions providing high-level professionals, engineers, scientists, technicians and business managers for the public service and the private sector.

[40] Ministry of Finance, Planning and Economic Development (source Ministry of Education) - *Poverty Eradication Action Plan 2004/2005 – 2007/2ß008, December 2004.*
-NRM 2006 Manifesto

In 2004, there were about 75,000 students enrolled at this level. Tertiary education is mainly available to the affluent population. It is recorded in the Poverty Eradication Action Plan 2004/2005 – 2007/2008 that *"the richest 1 percent of society access over 40 percent of available positions at Makerere and other universities."* The Government plans to raise the number of students enrolled in Universities and colleges for tertiary education to about 126,000 by the year 2015. The curriculum of most of the existing institutions will emphasise science and technology with appropriate government scholarships for desirable and qualified students.

Makerere University, the country's leading university awards degrees at the Bachelors, Masters and Doctorate levels in many disciplines of relevance to industrial development. These include agriculture, food science and technology, environmental management, civil engineering, electrical engineering, mechanical engineering, business administration and marketing economics. The University is a centre of academic research and specialised knowledge. Makerere and other universities/colleges, although established to generate and disseminate knowledge, tend to confine their activities in an academic setting. The allure of university degrees and certificates should complement the country's ability to easily absorb such graduates in the labour market, in particular, in industry.

ii. The work force – skills for industry

The Government of Uganda is the country's biggest employer and the most important provider of jobs at a regular basis. The formal sector of Uganda's economy provides jobs for about 13 percent of the labour force at the professional, managerial, vocational and technical levels.

The Ministry of Tourism, Trade and Industry has long recognised that, although there are many educated employees in the industry, they lack the requisite technical and vocational skills, simply because the training offered by the education and skills development institutes are not in direct response to the demands of industry. Consequently, many employers in industry provide on the job-training to ensure adequate skilled labour. However, there is still the problem of inadequacy of skilled labour.. Poor technical skills have been attributed to inadequate capacity of the training institutes. They are ill equipped and there is a shortage of trained instructors. There is a significant difference between the districts and sub-counties in terms of availability if skilled labour. A wide range of skills could be sourced in the Kampala Area, Jinja and to a certain extent in Wakiso. In the other districts, skilled labour is scarce.

Managerial capabilities and entrepreneurial skills are also in short supply. However both the Government and the private sector have invested in managerial skills development, as well as in entrepreneurial training with a view to improving management and performance of industry, including small and medium industries. Quality management training is not readily available in the country. According to the findings/results of the enterprise /competitiveness survey conducted by the Economic Policy Research Centre (EPRC) and the Ministry of Tourism, Trade and industry on behalf of UNIDO, about 28 percent of managers of industrial enterprise are professionals with approximately 55 percent of them being university graduates

with degrees and certificates. At the sub-sectoral level, about 43 percent of managers have vocational or technical training and some 38 percent have university training. The inadequacy of technical and professional capabilities in industry is a direct result of the education system, which is based on set curriculae and the absence of a policy framework for industrial skills development. Ironically, given the level of development in the country and the structure and status of industrial development, not all qualified university graduates or skilled labour could find employment. Many are said to be self-employed.

The Government of Uganda with the support of UNIDO has embarked on a programme designed to enhance entrepreneurial capabilities by inculcating entrepreneurial culture in Uganda at an early age. This initiative complements the Ministry of Education and Sports policy of reforming business, technical and vocational education and training system in Uganda. Fifty percent of industries covered under the enterprise/competitiveness survey consider technical and vocational graduates as very good with the required technical skills. Many of the enterprises tend to prefer vocational and technical school graduates than university graduates. Notwithstanding, the existing work force in Uganda should not be regarded as advanced due to the following shortcomings:

- Level of education
- Availability of industry specific skills
- Low work morale
- Ineffective collective organisations of labour
- Low level of productivity

iii. Work ethics

Labour productivity of the workplace in Uganda is comparatively low to other countries in the East African sub region and elsewhere in Africa. It is estimated that the country's workforce is 28 percent less productive than the Tanzania workforce and 68 percent less productive than the work force in Kenya[41].

According to World Bank and UMACIS Report (2004), the value added per worker in Uganda is US$ 1,085 per year compared to US$ 4,397 for China and US$ 3,432 for India. Even within Uganda, there are considerable variations in productivity. For example, enterprises that export most of their products have higher value added per worker, estimated at US$ 2,901 per annum, compared to US$ 1,117 per worker in enterprises that produce purely for the domestic market. The value added in enterprises with foreign equity is US$ 2,747 compared to US$ 1,182 for enterprises without foreign equity.

[41] Ministry of Finance, Planning and Economic Development – *Poverty Eradication Action Plan, Dec. 2004, Investment Climate Assessment for Uganda, Umacis, World Bank.*

The wage structure, availability of social amenities, the existence of a code of practice and the bargaining power of employees are all factors influencing productivity. Work ethics, therefore, could impact positively or negatively on production, as well as on the competitiveness of industry. According to a study by Steadman Research Services, April 2001, working conditions in Uganda are poor with managers working for approximately 61 hours a week. The official hours should not exceed 48 hours per week. Wages are also low in nearly all the sub-sectors and very little incentives are offered to retrain skilled labour and trained workers. Low wages and poor incentives definitely impact negatively on productivity of labour. Also, low wages could reinforce low skills development and poor industrial management.

The lack of social amenities in nearly all the existing industrial enterprises and limited opportunities for promotion also affect productivity. Absenteeism is not uncommon. Poor occupational safety and health in the workplace often result in injuries and health problems. Although Uganda succeeded in containing the spread of HIV/AIDS in the 1980s and 1990s, the prevalence rate has been increasing in recent years. The spread of HIV/AIDS in industry could affect production levels, consumption patterns and sustainable livelihood.

iv. Collective organisation of labour

The low level of labour organisation is considered as a positive factor for competitiveness as it increases the flexibility of the labour market. However, the existence of labour unions in a country could be instrumental in skills development and in improving working conditions, work ethics and other aspects of work in an industrial environment. Strong labour unions provide a platform for effective dialogue between management and workers. In addition, employees can deliberate on specific problems relating to the industry or work place. They can also express their fears and frustrations and even come up with realistic recommendations that could help improve performance in the industry, in general, and productivity of labour.

Quite apart from labour unions which, in Uganda, are more organised than in many African countries, there are organised private sector institutions in Uganda that are considered to be very effective in representing the interests of the private sector. The Uganda Manufacturers Association (UMA) represents not only the interest of its member, but also addresses the concerns of labour. The UMA is committed to promoting competitiveness in industry: The enterprise/competitiveness survey conducted by Ministry of Tourism, Trade and Industry and the EPRC had the full support of UMA, as well as the Uganda National Chamber of Commerce and Industry (UNCCI).

At the apex of the organised private sector is the Private Sector Foundation Uganda (PSFU). The PSFU consists of approximately 65 business associations. The PSFU sponsors round table discussions with the key stakeholders in the private sector, as well as with the Government. It has worked relentlessly in recent years to promote private sector competitiveness especially for exports.

There are a number of sub-sectoral associations addressing specific issues pertaining to industrial developments. A typical example is the Uganda Fish Processors and Exporters Associations (UFPEA). These organisations conduct research, provide market information where appropriate, organise trade missions and participate or support ad-hoc training programmes. They cannot, however, be considered as lead players in skills development.

v. *Low productivity and high unit cost*

Productivity is a function of skill management, infrastructure, work structure, equipment machinery, etc. As indicated earlier, it is the value added produced by each unit of labour. The unit labour cost in Uganda is fair. It is estimated that the average wage of an unskilled worker in an industrial enterprise is US$ 57.

4.1.1.1 Competitiveness survey

As indicated earlier, a survey of about 144 industrial enterprises, representing various industrial sub-sectors was conducted to determine Uganda's platform for industrial competitiveness. In general, manufacturers are optimistic about the prospects for sustainable industrial development. The adequacy of technically skilled labour, professionals and managerial capabilities are, however, critical determinants for industrial competitiveness. Fifty percent of industrial enterprises surveyed consider the availability of unskilled labour as being good and for about 15 percent of enterprises, unskilled labour is considered to be very good. In the food processing industrial sub-sector, 65 percent of respondents consider the availability of unskilled labour and its impact on production as good/very good. The same applies to the textiles, clothing and leather sub-sector, the wood and wood products industrial sub-sector, as well as the non-metallic minerals sub-sector. However, in the electrical machinery sub-sector, the quality and impact of available unskilled labour are rated as fair (Annex C of this document provides more details).

In general, the availability of artisans is considered to be good or very good for about 40 percent of the enterprises surveyed. However, for specific industries such as those producing wood and wood products, chemicals, rubber and plastics, the availability of artisans' remains poor or fair. Although there are inadequacies of various technical skills, many manufacturers consider the quality and impact of technically skilled labour as good with positive impact on production. Technically skilled labour is in short supply in the chemicals, rubber and plastics industrial sub-sector, as well as in the non-metallic minerals sub-sector. The electrical machinery sub-sector registers the highest quality of skilled labour followed by the textiles, clothing and leather sub-sector.

The survey result on the availability of managerial staff is stunning. Individual enterprises require different levels of knowledge, skills and professional competencies for managers. It is heartening to know that 55 percent of chief executives of industrial enterprises are university graduates and some 28 percent are professionals in the appropriate disciplines. The availability of managerial staff

and their impact on manufacturing are rated good or very good for about 65 percent of respondents.

Figure 4.1 below is a succinct presentation of the survey result on human resources.

Figure 4.1 Survey Results – Human Resource

The salary and wage structure in Uganda is relatively high compared to other countries in the Africa Region. Wages are considered low in the food processing and wood and wood products industrial sub-sectors but more so in the metals and metal products sub-sector, furniture and other manufacturing (see Annex C for details). The unit labour cost and output per worker are considered to be very poor to satisfactory for about 45 percent of industries surveyed with negative or negligible impact on competitiveness. The unit labour cost and output per worker are disastrous in the wood and wood products industries and in the transport equipment sub-sector but considered more or less favourable in the chemicals, rubber and plastics industrial sub-sector, in textiles, clothing and leather, as well as in printing and publishing.

The demand for employees with vocational and technical training is very high in all the industrial sub-sectors and there are concerns about the inadequacy of such labour, as well as the inadequacy of appropriate vocational and technical training facilities.

Regarding work ethics, many of the enterprises surveyed consider this as a major constraint to industrial development, especially in the metals and metal products sub-sector, the electrical machinery sub-sector and the chemicals, rubber and plastics sub-sector.

4.1.1.2 Prioritisation

Employers have a high interest in the market for education whose main products are educated and well trained potential employees of the labour force. However, the question is whether the market for education also offers industry specific skilled labour, professional and managerial capabilities. The availability for industry specific training and training facilities is essential for industrial development and

competitiveness and should be prioritised. It augurs well for labour productivity and the unit cost of labour.

Industrial enterprises, in particular, the large and medium enterprises should be encouraged to integrate comprehensive on the job training as an integral element of their human resource development programmes.

Sustainable industrial development and competitiveness presupposes the availability of a critical mass of a highly skilled labour force with adequate supply of professional, technological and managerial competencies to further nurture innovation and creativity.

The qualification base of the labour force should be improved and the country should be in a position to provide at all times a higher level of skills for industry.

4.1.2 Capital resources

A major constraint to industrial development in Africa is limited access to capital resources. Although Uganda has attracted increasing amounts of foreign direct investments in recent years, access to capital is a serious problem. Capital resources include not only the amount of capital resources but also the type and cost of capital available.

i. Dependence on foreign finances

Uganda is highly dependent on donor funds and foreign capital for its development programme. External loans account for about 40 percent of foreign inflows. Although the country was classified as a highly indebted poor country (HIPC) in 1998 at a time when even the macro-economic stability of the country was threatened, it has since adopted several economic, financial and budgetary policies which ensured the country's exit from the enhanced HIPC completion point in the year 2000 and subsequently its renewed credibility to borrow approximately US$ 1.5 billion from multilateral donors[42]. The financial services attracted some 23.5 percent of total investment in 2001, for example, and the manufacturing sector about 23.2 percent. The average annual FDI inflow to Uganda increased to approximately US$ 237 million in 2004. Ten years earlier, in 1994, the average FDI inflow was estimated at US$ 64 million[43]. Manufacturing attracted more foreign investments than any other productive sectors. The food processing industries, textiles, leather and footwear, as well as cement and packaging industries were the main recipient of FDI.

The Government of Uganda has responded to the challenge of promoting investments in industry and other productive sectors or services by introducing

[42] Ministry of Finance, Planning and Economic Development, Poverty Eradication Action Plan 2004/2005 – 2007/2008

[43] World Development Indicators

innovative changes in the financial and banking system and by structural reforms to improve the enabling environment. As a result, the private sector has responded positively and, in recent years, both domestic and foreign capitals have increased quite substantially. The level of fixed investments in Uganda is lower than similar investments in Kenya and Tanzania. However, since 2001, the rate of growth of investment in Uganda far exceeded the rate of growth of investments in Kenya and Tanzania. Whereas, Uganda experienced a growth in fixed investments of over 19 percent in 2004, Tanzania recorded a growth of 7.4 percent and Kenya only 0.2 percent.

Figures 4.2 and 4.3 below illustrate the trends in capital formation.

Figure 4.2: Real Gross Capital Formation

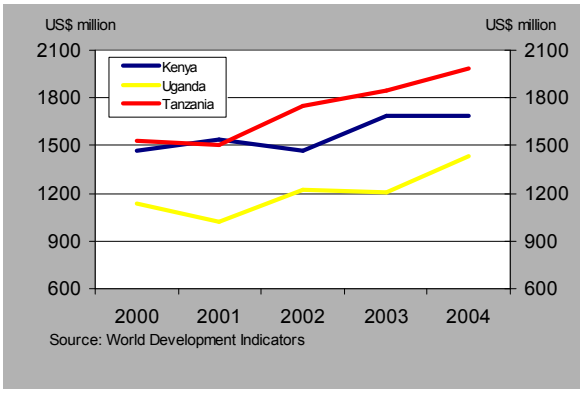
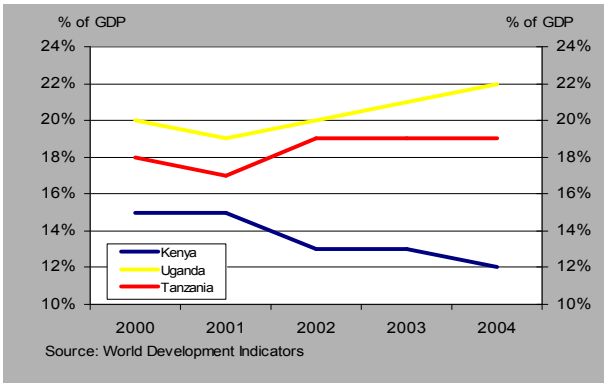


Figure 4.3: Gross Capital Formation



Foreign direct investments do play a significant role in the industrialisation process of Uganda. There are also major benefits and realistic outcomes of foreign direct investments such as the following:

- Introduction of foreign technology and innovative methods for productivity enhancement
- Promotion and development of appropriate technology through adoption of existing process technologies and development and commercialisation of domestic technology to improve productivity.
- Improved managerial and technical capabilities.
- Better corporate governance and economic management of the private sector and /businesses.
- Employment creation and income generation from corporate earnings and profit taxes.
- Subcontracting arrangements between large and small firms and creation of sustainable forward and backward linkages within industry and between sectors.

ii. Low domestic savings

Gross domestic savings are low. However, given the country's macro-economic stability, a declining inflation rate which is now contained at a single digit rate and the increase level of disposable incomes, gross domestic savings has increased from about 2 percent in 1991 to over 6.6 percent in 2003. The propensity to save is still rather low. With low savings, the real interest rate will be high.

iii. Monetary policy and banking system

The Government is aware that its continuing reliance on foreign aid to finance balance of payment deficits could have both positive and negative results. It is believed that the currency is over valued and the country's currency had come under pressures for devaluation. However, appropriate fiscal measures are being introduced to minimise the pressures on the exchange rate.

Uganda's financial sector is still underdeveloped at a time when emphasis is put on private sector led economic growth and industrialisation, in particular. The commercial banks are expected to play a key role in financing domestic investments and in supporting private sector led development. The cost of borrowing has been and still remains prohibitive to industrial investments. Interest on long-term loans charged by existing financial institutions range between 8-13 percent and for medium term working capital requirements, the interest charged range between 18-25 percent. The financial sector has undergone some major reforms. The reforms aimed at a number of structural problems to minimise administrative cost and improve risk management. In 2003, Parliament approved the new Financial Institutions Statute and the Micro Finance Statute all aimed at improving the legal and regulatory framework for the provision of financial services.

The Government relies heavily on the commercial banks for domestic funds. Government securities comprise some 24 percent of the total assets of the commercial banks. This means that the private sector has to compete with the Government for available funds from commercial banking. It is estimated that loans to the private sector represent approximately 20 percent of the total assets of the commercial banks. The Government should therefore curb its demand for commercial banks assets to ensure adequate release of such funds for private sector development.

iv. Access to industrial investment funds

Quite apart from the high cost of borrowing, access to industrial investment funds should be addressed. The Government has introduced a number of initiatives to provide long term, as well as the medium term financing for private sector development. Various credit schemes are being implemented e. g. the Export Promotion Fund (EPF), Export Credit Guarantee Scheme (ECGS) and the Export Refinance Scheme (ERS). These schemes are implemented through approved

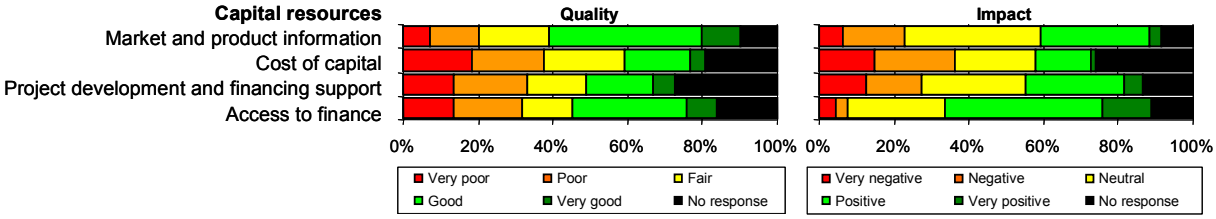
financial institutions. These schemes are mainly accessed by large and medium scale enterprises, as the minimum loan is approximately 200 million Uganda shillings. Nevertheless, there are many micro finance institutions (MFIs) operating credit schemes with minimum loan range of 50,000 – 300,000 Uganda Shillings. Yet, many small-scale enterprises find it difficult to access such micro finances because of the terms and conditions of the credit, which they find cumbersome. It should be noted, however, that micro finance institutions for micro enterprises have increased considerably with a total loan portfolio of about 86.5 billion Uganda Shillings.

4.1.2.1 Competitiveness survey

The result of the survey confirms that access to capital and the cost of capital are major constraints to industrial development and productivity enhancement to ensure competitiveness. The terms and conditions to access medium and long-term finance are of grave concern for many of the industrial enterprises that responded to the survey questionnaire. The inadequacies of medium and long-term finance for industry are also mentioned. Existing industrial enterprises in almost all the sub-sectors are in need of capital for the replacement of plants and machinery. As most of the plants and equipment are old, maintenance costs are extremely high, and several enterprises often tap into their cash reserves for repair and maintenance.

Figure 4.4 below is an aggregate illustration of the enterprises perception of capital resources.

Figure 4.4 – Survey Results - Capital Resources



Although 45 percent of enterprises acknowledge that they are very well informed about the capital market and products, the majority of enterprises, approximately 70 percent, consider the impact of such information as negative or neutral. The cost of capital is extremely high for about 22 percent of enterprises; high for another 20 percent of enterprises and fairly satisfactory for approximately 18 percent of enterprises. These percentage shares are adequately represented in the food processing industries. For the textiles, clothing and leather industries, the cost of capital is considered devastating with negative or negligible impact on industrial development and competitiveness. The wood and wood products industries provide no information on the issue, as existing industries tend to plough back profits instead of contesting for highly costly loans from the commercial banks. In capital-intensive industries such as those producing chemicals, rubber, plastics and non-metallic

minerals, the cost of capital is also devastating - much more so than for the food processing industries. Industries in the electrical machinery sub-sector are more appreciative of the capital resources available and rate the cost of capital as good or very good (33 and 34 percent respectively of enterprises surveyed). Another 33 percent consider the cost of capital to be extremely high.

Access to finance is another thorny issue. Overall, 42 percent of all enterprises surveyed give a rating of very poor to fair. Some 43 percent believe that access to finance is good or very good. However, the structure is different for the food processing industries. Approximately 60 percent consider it difficult to access finance resulting in negative impact on enterprise development and productivity enhancement. A similar trend or perception is witnessed in the printing and publishing sub-sector. The non-metallic minerals sub-sector has little hope of accessing finance with nearly 80 percent rating access to finance as poor or very poor.

4.1.3 Physical resources

Physical resources cover not only the availability of land, agricultural and mineral resource but also the quality of such resources, ownership, proximity to industrial sites and markets and the cost of such resources. All these elements could have a positive or negative impact on competitiveness.

i. Land

In the 1990s, land was commonly cited as a major constraint to economic development. However, by 2004, many stakeholders including the World Bank had indicated that access to land was no longer a major issue. The enterprise/ competitiveness survey confirms that land is not a serious issue for development. For industrial purpose, land is still an issue as the land around Kampala, the main industrial region, is not easily accessible. The Government's Land Sector Strategic Plan (2001 – 2010) focuses on the protection of land rights, improved access to land and tenure security. As most of the land around Kampala is privately owned or, as in the provinces, collectively owned, access to land for industrial purpose could be prohibited by high cost or a long and tedious process to ensure security in tenure. There are also gender implications as women's land rights are still questionable in certain regions, thereby, limiting the potentials for women in industry. Land ownership is a critical issue and land information and policies are not always clearly understood by potential investors. This could frustrate foreign investors who would like to have some definite ownership of tenure of land for industrial use. A way of addressing this issue is the introduction of Export Processing Zones (EPZs) in Uganda. Some 300 hectares of land have been earmarked near the Entebbe Airport for this purpose. Industrial zones have been marked in other regions and districts.

Uganda is well endowed with arable land for agricultural products, which are raw materials for industry. The effective use of land is constrained by the absence of

other types of infrastructure and services such as water, road transport and electricity/energy.

ii. Mineral resources

Uganda is endowed with metallic and non-metallic mineral resources. In the 1960s, 1970s and right up to the early 1980s, the country was known for its production of minerals such as gold, iron, ore, copper, cobalt, columbium, tin, tantalum and tungsten. Other industrial minerals such as gypsum, clay, talc, lime, salt and vermiculite were used as raw materials for a number of non-metallic industries in the country.

Cobalt is currently produced and refined by the Kesese Cobalt Company Ltd. In 2004, 436 metric tons of cobalt was produced with record export earnings of US$ 10 million. In that same year, the Uganda Gold Mining Ltd. signed an agreement with the Government, more specifically the Kilembe Mines Ltd. to conduct exploration of, as well as, a feasibility study for the rehabilitation/restructuring of cobalt/copper production in Uganda.

Several foreign owned companies are involved in gold exploration and production. There are known deposits of gold in Busia and Buinja. Exports of gold reached an impressive figure of US$ 73.8 million in 2004. There has been renewed interest in Kaolin production for domestic use and for exports. For example, Muhindo Enterprises Ltd. has invested over US$ 4 million to upgrade its production facilities and is expected to produce approximately 150,000 tons a year with a projected 400 percent increase in 10 years. There are also deposits of iron ore, columbium and tantalum. M/S Technical Support and Services Ltd. is producing approximately 30 – 35 kilograms of tantalite a day. At the country level, the annual production of columbite and tantalite is about 4,350 kilograms.

Minerals offer tremendous potentials for investments. Given that they are basically industrial raw materials, the processing of these materials will not only create additional employment and generate income for the rural poor, but will also increase industry's contribution to the GDP. Mining is carried out mainly by artisanal miners and small-scale mining companies. Some 50,000 – 100,000 people are involved in mining activities. Foreign direct investments in mining should be encouraged. In this regard, the Government of Uganda enacted a new mining law in May 2003, which offers benefits to both the local communities and the mining companies.

iii. Water

The National Water and Sewerage Corporation (NWSC) is responsible for urban and sewerage services in the large urban centres. Rural water supply is the responsibility of the Directorate of Water Development (DWD). The supply of water in Uganda has improved quite significantly during the last fifteen years. Water is essential for industrial production, however in Uganda, the water authorities are

more concerned about water for livestock agriculture and wild life than for industry. The infrastructure for water for industry is poorly developed, especially in the provincial areas. There are also problems of maintenance and supply in the urban areas. It is proposed to integrate the needs of industry in the country's overall water supply plans.

iv. Raw materials

Raw materials availability, in particular, access to such raw materials is important for industrial competitiveness. Agricultural raw materials are the main ingredients for an agricultural led industrialisation in Uganda. The country is rich in agricultural resources such as coffee, cotton, tea, tobacco, maize, fisheries and livestock. Coffee production, though unstable as a result of weather conditions and diseases, is a significant source of foreign exchange earnings. Coffee production increased quite considerable in 2001/2002 but declined by about 12 percent in 2003/2004. Export volume also declined during the same period. However, the corresponding value of exports increased by approximately 9 percent during the same period as a result of increase in unit prices and improvement in quality of coffee exports.

Figure 4.5: Coffee production

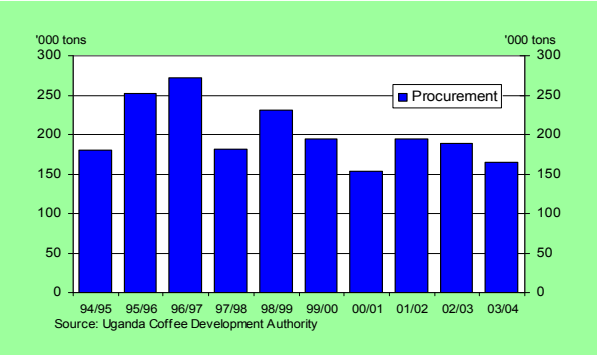
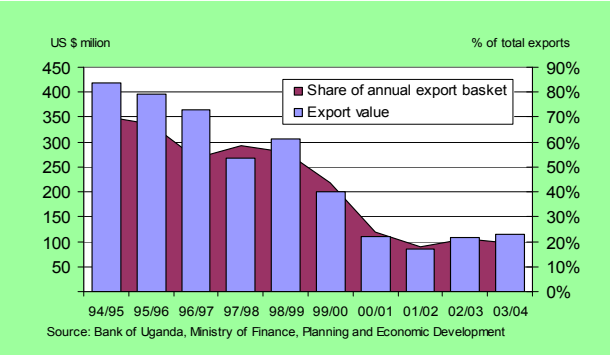


Figure 4.6: Coffee Exports



Similar fluctuations have been experienced in cotton production since 1999. After a sharp decline in production in 2002/2003, cotton production increased slightly in 2003/2004. Cotton exports increased considerably in 2003/2004 to about US$ 41.4 million after three consecutive years of decline in the export figures.

Figure 4.7: Cotton Production

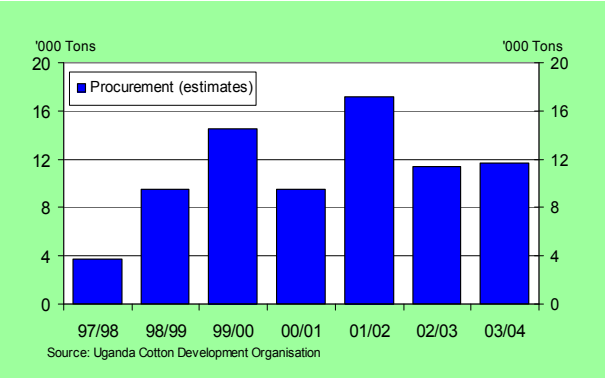
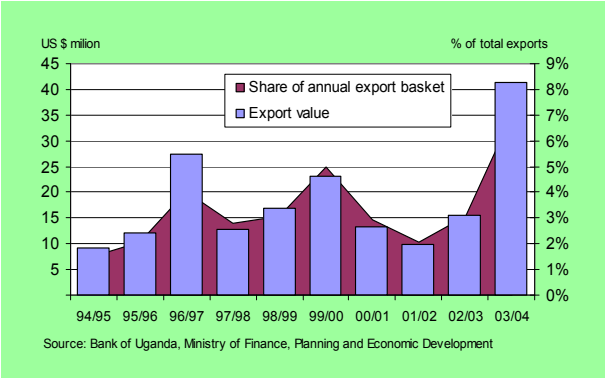


Figure 4.8: Cotton Exports



Tea production has been increasing steadily since 1998. In 2003/2004, tea production increased by 7.9 percent representing 38.2 thousand tons. Tea exports also increased by about 33.3 percent in 2003/2004.

Figure 4.9: Tea Production

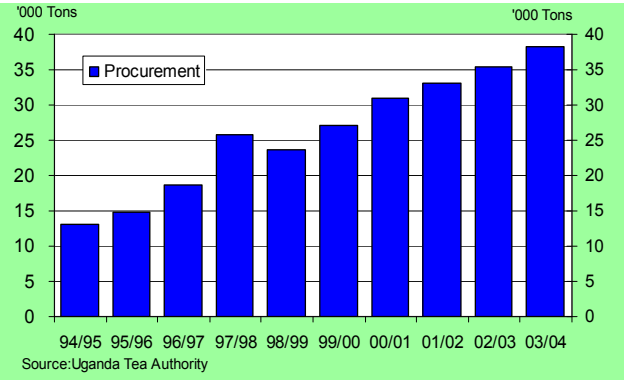
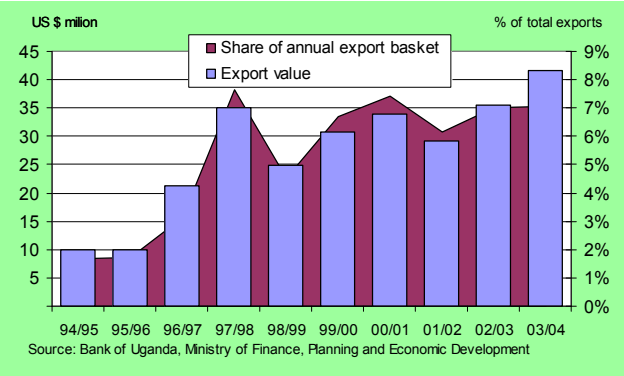


Figure 4.10: Tea Exports



Tobacco production declined in 2003/2004 by about 1.8 percent representing 33.8 thousand tons. However, the production of tobacco has increased quite significantly from its 1998/1999 level. Exports and export earnings had a similar trend during the same period.

Figure 4.11: Tobacco Production

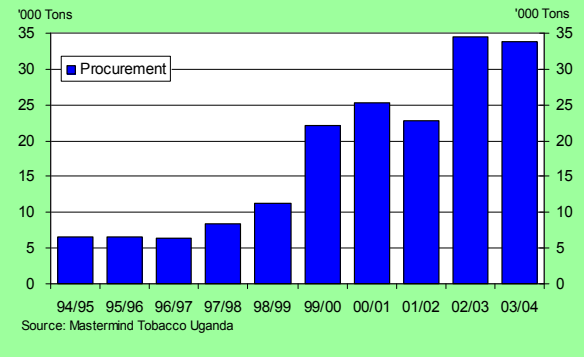
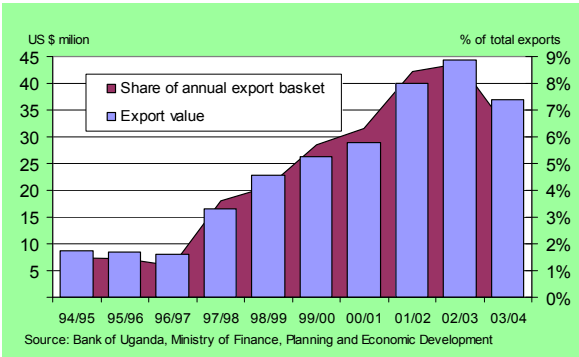


Figure 4.12: Tobacco Exports



Although Uganda is a land locked country, it is well served by five major lakes, namely, Lake Victoria, Lake Albert, Lake Edward, Lake George and Lake Kyoga. Fisheries production is mainly from these lakes although there are over a hundred minor water bodies, some of which have fresh water fish varieties. The annual catch of fish is about 230,000 metric tons, which is valued at over US$ 130 million. The bulk of the catch, some 60 percent, is sold as fresh fish in the domestic market and another 20 percent processed by traditional methods – smoking and salt curing.

The commercial production of fish, especially for export, is being promoted. There are about 12 fish processing plants in the country with total investments of over US$ 30 million. The European Union, Japan, United Arab Emirates are the major export destinations. There are major issues to be addressed if the fisheries sub-sector is to sustain its competitiveness. These include continuous quality improvement, modern storage and refrigeration facilities and affordable transportation. Fish exports earnings were projected to reach US$ 95 million in 2006.

v. Tourism resources

Uganda once had a thriving tourist industry, which collapsed during the regime of Idi Amin. Various initiatives are now in place to revitalise tourism. There are a number of sociological and ecological sights that are attractive to tourists. Lake Victoria is the largest lake in Africa and the source of the River Nile. It is surrounded by beautiful beaches. Regrettably, the lake is being inhabited by water plants that could destroy fisheries, as well as by parasites that causes river blindness and other serious ailments. Jinja, a provincial town located on Lake Victoria is not only a tourist attraction but also hosts a number of industries. Kampala, the capital city of Uganda, is mainly located on hills, which provide a breathtaking landscape and a temperate climate for both the nationals and foreigners from Europe, USA and elsewhere. The hottest period is December to February with an average temperature of 29 degrees centigrade. Kampala has a number of attractions including the Makerere University located on the Makerere Hill, the Uganda Museum, the Ssezibwa Falls, the Uganda National Theatre and the Owino Market – an open-air market.

There are a number of game parks located throughout the country such as the Queen Elizabeth National Park with an outstanding biodiversity rating, a positive factor for sustainability of the 100 mammal species and some 600-bird species located therein. Other game parks with special attractions are Murchison Falls National Park, Lake Mburo, National Park, Kidepo National Park and Kibale Forest National Park.

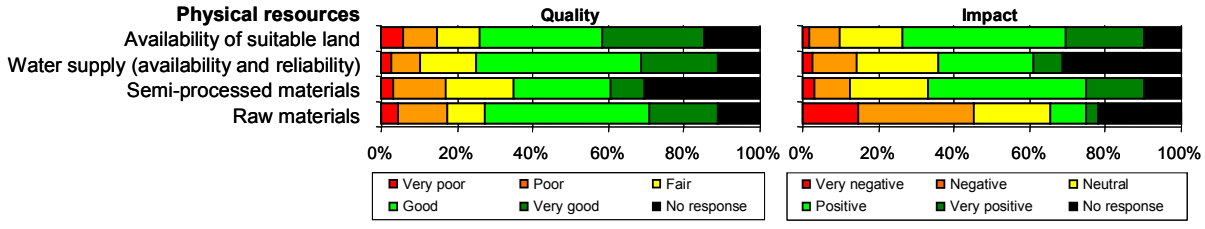
The number of tourists visiting the country has increased from about 189,348 in 1999 to 254,000 in 2002[44]. Tourism is a major foreign exchange earner with recorded earnings of US$ 102 million in 1999 and US$ 185 million in 2002.

Uganda has a natural scenic beauty of hills, lakes and picturesque villages, as well as forest and marine life that could attract tourists and generate employment and incomes for the rural population. A number of rural industries could emerge in support of tourism.

4.1.3.1 Competitiveness survey

In general, most of the enterprises surveyed consider physical resources as a determinant for competitiveness with water, land and the availability of semi processed materials having good to very good impact on production and competitiveness. Resource based industries such as the food processing industries, the wood and wood products industries and non-metallic minerals industries are positive about physical resources and the implications for production, sustainability and competitiveness. Surprisingly, however, the following industries are extremely positive about physical resources – industries producing electrical machinery and transport equipment. However, they express concern about the availability of suitable land. Industries engaged in food processing, textiles clothing and leather production would like to see major improvement in the quality of raw materials. Given the location of the raw materials and the absence of adequate storage facilities, costs of production of the finished products could be relatively high.

Figure 4.13: Survey Results -- Physical Resources



It should be noted that although raw materials are available, raw materials for many basic industries in Uganda are imported.

[44] Ministry of Finance, Planning and Economic Development - *Poverty Eradication Action Plan 2004/2005 – 2007/2008*

4.1.3.2 Prioritisation

- There is a need to conduct comprehensive integrated mineral resource surveys to determine the country's mineral resources and volume of existing reserves.

- Infrastructure and transport facilities should be improved to ensure continuous access to the bulk of raw materials and mineral resources needed by industries.

- Water supply for industrial uses should be improved and measures introduced for the recycling of industrial wastewater

- The continuous modernisation of agriculture is highly desirable to improve the quantity and quality of agricultural raw materials for industry.

- The diversification of tourism products and services should be promoted.

- The efficient and effective use and management of natural resources should also be promoted.

4.1.4 Infrastructure

A major factor for industrial competitiveness is infrastructure. For industry to succeed, infrastructure should be adequate and reliable. In common with other African countries, the quality and access to infrastructure in Uganda should be improved. The provision of infrastructure for industry is the responsibility of both the Government and the private sector. The role of the latter in this respect is increasing gradually as the Government pursues and implements its privatisation plans and programmes.

i. Transport and communication

The Government of Uganda recognises the significance of road transport in Uganda and has adopted a policy that puts emphasis on development and sustainability of road networks throughout the country. Over 80 percent of roads are unpaved. The main roads in the towns and those connecting the major towns were repaired in the 1990s and early 2000. The existing roads in the rural areas are in poor condition with only about 10 percent of such roads reported to be in fairly good condition. The Government is currently pursuing public private partnership in road construction and maintenance especially in the urban areas.
Uganda is served by approximately 10,500 km of national roads, 27,500 km of district roads, 2,800 km of urban roads and 30,000 km of community access roads. However, many of these roads are in poor conditions during the rainy season.

Railways connect Uganda to Nairobi and Mombassa. It is essential for bulk transportation of agriculture and mineral products. It is estimated that only about 10 to 15 percent of goods produced could be transported by rail. There are five lines of rail network consisting of over 1,350 km of rail tracks. However, only 2 lines with a total of less than 300 km are operational, linking Uganda to Kenya and to Tanzania via the pier at Port Bell on Lake Victoria. The railway network is in a precarious state, plagued with inefficiencies in operation and maintenance. Considerably long delays in delivery of goods are experienced on a continuing basis, with devastating consequences for producers, distributors and consumers.

Water transport is a priority area of concentration. There is an ongoing programme – the Inland Water Transport Development Programme 2001/2002 – 2005/2006 which aims specifically at improving the safety of water transport system with corresponding landing infrastructures. Ferry services are provided by the Government in several areas such as on the Bukakata - Luku, Nakiwogo - Kyavubu and Waneseko – Panyimur routes. The successful implementation of the programme is hampered by the lack of financial resources.

Air transport, on the other hand, is much more efficient. The country's only international airport at Entebbe serves both passenger and cargo planes. There are other aerodromes throughout the country used for domestic flights and flights operated by missionaries and tourist organisations. Cargo handling is reasonably efficient. Three cold storage facilities with a total capacity of 500 tons provide refrigerating services for exports and imports. The existing airport storage facility is capable of storing 10,000 tonnes of products. There are plans to build more storage for an additional 100,000 tons of products.

Transporting products by air is, however, expensive especially when few air carriers are involved. The high cost of transportation is often reflected in the price of the finished products, thereby, diminishing the chances of being competitive.

Telecommunication is a fast growing sector. It is reported that since 1999, telephone density has increased tenfold and Internet services have been extended to more than 50 percent of all sub-counties[45]. Although there has been an increase in telephone connections – landlines, the mobile phones - mobile connection is a rapidly growing business with over 1,000,000 subscribers. Telecommunication is not as expensive as in other African countries. Rural telecommunications are also on the rise. A Rural Communications Development Fund has been established. The fund offers subsidies to potential private investors in rural communications.

[45] Ministry of Finance, Planning and Economic Development – *Poverty Eradication Action Plan 2004/2005 – 2007/2008*

ii. Electricity and energy

It is estimated that some 89 percent of urban households have access to electricity and only 3 percent of rural households have access to grid electricity. Uganda's electrical energy per capita consumption is about 62 kwh per year. The main source of energy is biomass - charcoal and wood. The country, however, has tremendous hydroelectric power potential, estimated at over 2000 MW. The current level of hydro electrical energy is about 317 MW. With the government policy of encouraging private participation in electrical energy development, a number of electrical companies provide electricity to the urban and rural areas. Rural electrification is a priority to minimise the country's dependence on biomass and to tap other sources of energy including solar and hydro energy (small hydro plants).

The supply and cost of energy is critical to industrialisation and competitiveness. Electric energy supply is inadequate and unreliable for industry. It is estimated that about 77 percent of large firms, approximately 44 percent of medium scale enterprises and some 16 percent of SMEs have their own power generators as a contingency against power cuts. These generators tend to operate on a daily basis. The cost of generating electricity from generators is about US$ 0.24 cents/kwh compared to the cost of grid electricity estimated at US$ 0.67 cents/kwh. For a landlocked country whose petroleum and diesel requirements are imported, privately owned generators are not the best solution to the current energy crisis.

iii. Water infrastructure

Water for industry is limited. The management and distribution of water has been decentralised. The country is endowed with fresh water resources but at the same time there are areas prone to drought or floods with devastating effects on production. The Government and other authorities are effectively implementing water resource protection strategies and watershed management measures. The main challenge however, is how to integrate water resource management with other economic activities, in particular, with industry. The urban areas have higher water coverage than the rural areas – 60-65 percent of the total population compared to 50 percent in the rural areas.

iv. Social infrastructure

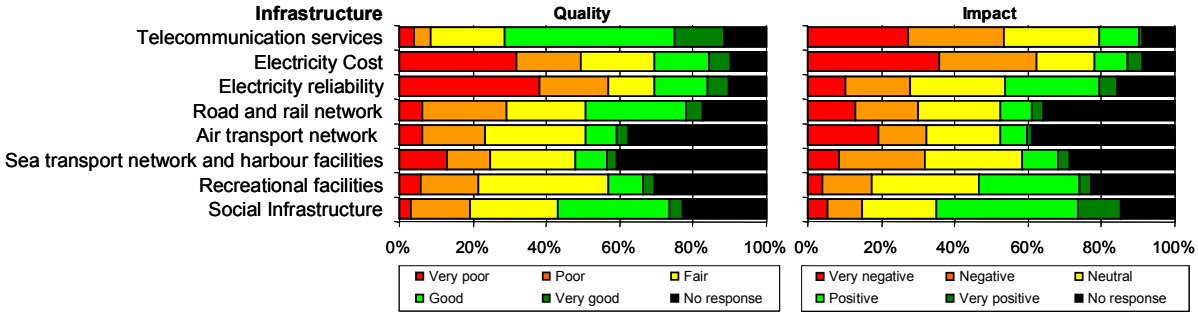
The Poverty Eradication Action Plan 2005/2005 – 2007/2008 fully addresses social issues, such as education, health, water and sanitation and other social services. The Heath Service in Uganda comprises of Government operated agencies, private and community owned health services and services provided by non-governmental organisations (NGOs). The existing health facilities are inadequate for the growing cases of diseases, including HIV/AIDS. Nevertheless, it should be noted that significant improvements have been achieved in the health sector, resulting in a decline in the number of out patients' cases.

4.1.4.1 Competitiveness survey

Industries surveyed are concerned about the high cost of electricity and its negative impact on competitiveness. Nearly 60 percent of the enterprises surveyed regard the quality of electricity, its costs and reliability to be high and poor respectively. Telecommunications are considered to be good or very good by most industries. However, the high cost of telecommunications is a negative for most industries. For over 55 percent of industries surveyed, the impact of telecommunications services is negative or very negative for competitiveness. Only about 8 percent of industries consider telecommunications as a positive factor for their establishments. Although food-processing enterprises are rather favourable to telecommunications and consider the impact on their enterprises as good (more than 50% of enterprises surveyed in the sub-sector), their views on electricity cost and reliability of road and air transport are devastating (Annex C – Survey results for more details). The textiles, clothing and leather industries have similar views. Surprisingly, the wood and wood products industries consider the cost of electricity to be fair or good with over 65 percent giving a rating of good. As should be expected, the printing and publishing industry give high scores for telecommunication services. Seventy percent of enterprises consider telecommunications services as good to very good. They also consider the cost of electricity to be high or very high; road and rail networks as poor or fair with disastrous impact on their production and their ability to compete. Similar experiences are shared by the chemicals, rubber and plastic industrial sub-sectors.

The following is an aggregate representation of the survey results for infrastructure.

Figure 4.14: Survey Results - Infrastructure



4.1.4.2 Prioritisation

- Improvement of urban and rural water management and distribution, integrating water for industrial use;

- Development and utilisation of hydro-electrical power and solar energy for industrial use.

- Introduction of effective energy conservation and management measures to ensure availability and reliability of electrical energy at lower cost.

- Promotion and implementation of public private partnership initiatives for road, rail and water transportation

- Effective implementation of health sector rehabilitation and development programmes and projects with the Government as the keyplayer.

4.1.5 Knowledge resources

Knowledge is regarded as a major engine for growth and development. The globalisation of the world economy characterised by the globalisation of trade, markets, finance and competitiveness calls for a renewed focus on knowledge. Porter, in his analysis, reiterated the importance of knowledge resources, information and telecommunications technologies in the global economy. Knowledge is considered a major factor of production. However, unlike other factors of production, it does not diminish in value. Knowledge resources are mainly in the universities, research institutions, in market research, technological processes, the availability of knowledge intensive services such as business services, consulting services, financial services, Internet services, etc. The global economy is, therefore, a knowledge driven economy in which knowledge is important for improved economic performance of countries in their industrialisation process or in the transformation of their economies.

The information revolution has created a borderless global economy. The increasing and continuing change in information and communication technology has facilitated the dissemination of knowledge, and R&D results. The increasing stock of scientific and technological research has widened the stock of knowledge, including codified, scientific and technological knowledge. The flow of information, creativity, R&D, the increasing use of computer aided design and computer aided manufacturing (CAD/CAM) techniques, as well as knowledge embodied in an experienced work force are all critical elements for competitiveness. However, the impact of knowledge resources on competitiveness depends on a number of factors. The volume and value of knowledge resources also depend on the research capacity and corresponding accumulated knowledge in the universities, in research institutions and other business information providers. Knowledge resources also include, a country's, or more specifically, a firm's ability to source, master, absorb and utilise knowledge to drive industrialisation, transform production processes, as well as to improve the quality and quantity of products. Porter and others believe and, it is becoming quite apparent, that countries that create a business climate that promotes research and development (R&D) and countries that invest heavily on information technology, offer tremendous opportunities for industrial development and competitiveness. Whereas, countries that stifle investments in research and development and information technology tend to perform poorly.

Knowledge is one of the determinants of manufacturing performance. In the developed countries where knowledge is available in a variety of forms and can be

used efficiently and effectively, industries do well and are able to compete. In the developing countries, including Uganda, knowledge is limited. The cost of identifying and utilising technologies including developing new technologies could frustrate industrial development. The Government must, therefore, support institutions that are involved in R&D, in particular, those involved in product and process technologies.

i. Institutional infrastructure

Makerere University is at the apex of the institutional infrastructure for knowledge in Uganda. The University aims to become a centre of academic excellence and provides teaching and academic research and other services of relevance to the development of the country's economy. The University has, in the past, conducted studies in economics, biotechnology, and appropriate technology. Some of the research conducted could be regarded as demand driven. However, the university - industry linkage is extremely limited. The University has a pool of specialised talents, which could be effectively engaged in R&D, specifically for industry. Other universities and colleges also provide limited services in R&D and in technological development and especially in the areas of agriculture, including livestock development and pharmacology for tropical diseases.

The Economic Policy Research Centre (EPRC), Makerere University, conducts research and critical analysis on economic issues including industry related issues that could impact on policy formulation, policy implementation, monitoring and evaluation.

Another institution that could contribute immensely to knowledge resources for industry is the Uganda Industrial Research Institute (UIRI). The Institute's main function is to conduct research for product development and process technology for industry. It conducts raw materials research and provides support in identifying and developing appropriate technologies for industrial operators. The Institute's major problem is that of adequate resources both financial and human to effectively carry out its functions. There are also a number of medium and large-scale enterprises that have installed laboratory facilities for product improvement. These facilities are not well equipped and industries, very often, would require outside assistance in this regard from the Government or other existing institutions, for example, the Uganda Industrial Research Institute (UIRI). The Uganda National Bureau of Standard (UNBS) and the Uganda Council of Science and Technology (UCST) are also knowledge resource institutions of relevance to industry.

The Ministry of Tourism, Trade and Industry (MTTI) should provide policy direction and guidance for industrial development. In this respect, MTTI should be in a position to provide industrial and technological information to the private sector. The Ministry's capacity for industrial and technological information is extremely weak. It relies on other institutions, e.g. the Uganda Bureau of Statistics for most of its information.

ii. Market and product information

The Private Sector Foundation Uganda provides business development services to its members. However, the Uganda Manufacturers Association is the main source of market information for industry, as well as for industrial and technological information. The services offered by the Uganda Manufacturers Association are, however, limited. The private sector industrial operators in Uganda consider information provided by both the Private Sector Foundation Uganda and the Uganda Manufacturers Association as good to very good.

The Uganda Bureau of Statistics (UBOS) is responsible for statistical system and its coordination. It conducts a wide variety of surveys to collect, process and disseminate industrial and related statistics. In recent years, it has been providing information and data on industry and trade to the Ministry of Tourism, Trade and Industry to be used specifically for trends analysis of industry and trade that could be of relevance to industrial policy development and governance. The statistical capacity of the Uganda Bureau of Statistics is adequate although it could be strengthened for more advanced statistical research of relevance to industrial competitiveness.

iii. Industrial and technological information

The potential scope for industrial and technological information has increased with the widespread use of information and communication technology. It is now easier to source R&D information from around the world than it was in the 1980s. Industrial enterprises could source the Internet and access global markets for knowledge assets. However, the institutional infrastructures and arrangements for industrial and technological information in Uganda are weak. As indicated in (ii) *market and production information* above, the existing institutions, in particular, the Uganda Bureau of Statistics has the potential for such services and should be further strengthened.

iv. Connectivity and networking

In a global economy in which Uganda is an integral part, information and telecommunication technology is a *sine qua non* for development and the transformation of the country's industrial landscape. Although significant improvements have been made in the information and telecommunication system, it is still relatively weak. Many industrial enterprises in Uganda are on line but the percentage of enterprises connected is still small. Computer skills could be regarded as a competence necessary for improvement in industrial operation and management.

It is also important that industrial enterprises are connected to the internet as this will increase internet commercial and industrial transactions. However, for such

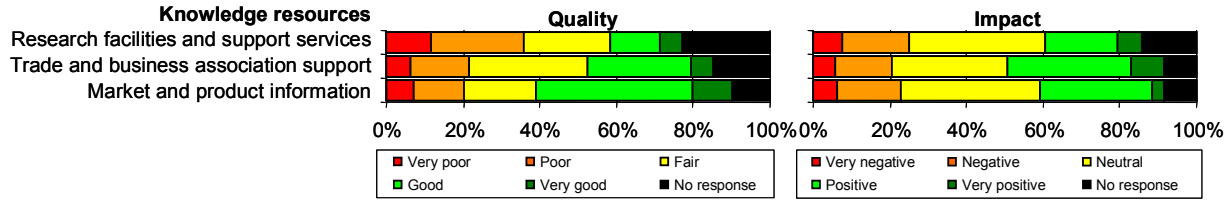
transactions to be effective, more and more people, especially the consumers should also be connected to the internet.

4.1.5.1 Competitiveness survey

The results of the enterprise/competitiveness survey confirm that industrial enterprises in Uganda do not fully appreciate the significance of knowledge resources. However, they recognise that there is a dearth of knowledge resources in the country. Of the enterprises surveyed, 40 percent consider knowledge resources to be very poor or poor. Another 20 percent give a rating of fair. Less than 20 percent regard the availability of knowledge resource facilities and knowledge support as good or very good.

For specific sub-sectors, the figures are more alarming. In the wood and wood products industrial sub-sector, 70 percent of enterprises give a rating of very poor to poor with similar devastating reports on the impact of knowledge resources on production and competitiveness. (Annex C of this analysis provides more details). Enterprises in the textiles, clothing and leather industrial sub-sector are quite satisfied with what is currently available in terms of market and product information, with about 60 percent indicating that such information is good or very good. A similar rating is given by the printing and publishing industry.

Figure 4.15: Survey Results – Knowledge Resources



4.1.5.2 Prioritisation

- The Government and the private sector should promote and intensify scientific and technological research especially in R&D for industrial enterprise development;
- Public private partnerships should be established to provide adequate stock of knowledge resources and related and support services for industry;
- Networking among knowledge resource institutions within Uganda and elsewhere in Africa, Europe, Asia and America should be encouraged with a view to ensuring adequate acquisition and provision of knowledge resources for industrial development and competitiveness.

4.2 Demand conditions

As already indicated in Chapter 3, demand conditions relate specifically to the nature of domestic demand for industrial products or services including the scope, size and patterns of growth of domestic demand. Other elements to be addressed are government demand, export opportunities and the impact of HIV/AIDS on production and consumption patterns.

The demand conditions in a country could impact on the pace and type of innovation to improve production processes, products and competitiveness. Michael Porter, in the *Competitive Advantage of Nations (1990),* contends that the nature and quality of domestic demand have a greater impact on competitiveness than the absolute size of the market. Where there is a dynamic domestic demand for a product or products, industrial enterprises producing such product(s) are constantly under pressure to produce better quality products or introduce new products and services to sustain or increase demand. Therefore competitive advantage can be achieved in industries where the quality of domestic demand could force domestic industries too improve the quality of products and after sales services. Industries are, therefore, under pressure to innovate in order to ensure better value for money. However, a competitive environment in which innovation is a driving factor could only be assured if certain elements of domestic demand exist. The following are some examples:

- The demand for a particular product or products represent a significant share of the total demand;
- The increasing presence of sophisticated and demanding consumers and local buyers;
- Domestic demand that anticipates and leads to international demand.

It is now generally acknowledged that, if a particular product in a country is important globally and represents a high share of domestic consumption, especially if the product is sophisticated, industrial operators in the country would consider this a source of advantage and would concentrate their efforts in producing more of the product and ensuring continuous improvement in terms of quality, packaging and marketing. Industrial operators are extremely sensitive to the needs of consumers, especially their main customers. It should be noted that the size of the domestic demand could also lead to competitive advantage and, much more so, if the demand is growing. Where there are economies of scales, industrial operators would tend to invest more in technology, innovation, packaging and marketing to further increase production. In addition, on the assumption that there are large numbers of consumers with sophisticated demand at home and abroad, producers will invest more on innovation. Other potential investors could be attracted to that particular industrial sub-sector or product and, in time, a dynamic environment for innovation will emerge, thus assuring better quality products and more production. However, if the domestic market is saturated or shows early signs of saturation, producers would be obliged to introduce new product features to attract more consumers and

stimulate demand or as should be expected, reduce the prices of their goods. Another option is to look for new markets in neighbouring countries, especially in countries where demand is not sophisticated.

4.2.1 Uganda's demand conditions

i. Size of domestic demand

The population of Uganda is estimated at around 28.2 million with approximately 50 percent between the age of 0 – 14 years. The number of people between the age of 15 – 64 years is estimated at about 13.4 million representing approximately 47.8 percent of the population. With an annual population growth rate of nearly 3.4 percent, Uganda has one of the fastest growing populations in the world. In terms of numbers therefore, there is a potential market for industrial products. The GDP per capita is estimated at around US$ 1,700. The labour force is about 13.17 million.

Demand is mainly influenced by private consumption expenditure. A substantial part of consumer spending is for basic items such as food, water, fuel, electrical energy and clothing. It should be noted that about 80 percent of the population live in the rural areas and mostly engaged in agriculture. As indicated earlier, the share of agriculture to the GDP has declined steadily in recent years with agriculture now accounting for 38.5 percent of the GDP. Therefore, per capita expenditure of the rural community has fallen drastically. The Ministry of Finance, Planning and Economic Development has estimated and acknowledged that there has been a marked increase in poverty since 1997[46]. Rural poverty has been accentuated by the continuing decline in the prices of farm produce and, inevitably, farmers' incomes. Therefore, although an increase in population offers a potential market for industrial products, in value terms the market is limited.

The domestic market is penetrated with all sorts of imported industrial products including processed food, textiles and clothing, leather goods and footwear, wood and wood products, paper and paper products, engineering goods, basic metals etc. Some domestic enterprises produce for both the domestic market and for exports. They are being encouraged by the Government to improve both the quantity and quality of their products. However, the requisite infrastructure, marketing and distribution services are inadequate.

ii. Nature of demand

The food processing industrial sub-sector is one of the most promising sub-sectors in Uganda. Growth in exports of processed food has increased quite substantially since the year 2000. There has been a corresponding increase in processed food

[46] Ministry of Finance, Planning and Economic Development, *Poverty Eradication Action Plan 2004/2005- 2007/2008*

exports with an estimated total export earnings of over US$ 308 million. The demand for fresh food is, however, very high. Consumers also utilise large quantities of imported food. However, they are not particularly worried about the quality or packaging of processed foods of domestic origin. It should be noted that if consumers demonstrate unsophisticated preferences, industries would not be under pressure to improve the quality of products. This could suppress the growth of the food processing industry and its ability to compete. The packaging industry will also be in a similar situation.

The textiles, clothing and footwear industrial sub-sector has experienced strong growth during the last three years. In 2003, for example, exports increased by 15.4 percent. The demand for imported textiles clothing and footwear also increased by about 22 percent. The domestic market for textiles, clothing and footwear is not sophisticated. However, as the economy expands, it is likely that there will be a strong growth in the domestic demand for textiles, clothing and footwear. Producers will continue to produce the same quality of products for an unsophisticated market unless they are under pressure to improve the quality of the products being exported.

Government demand and consumption patterns can also contribute to the expansion of production or the growth of a particular enterprise. A very high proportion of Government expenditure is channelled into social services such as education and health, as well as public administration and defence. The country's dependence on donors' funds could be a setback for any redistribution of the budget that could accelerate the industrialisation process, as donors have their own priorities and could restrict the inflow of donor funds.

4.2.2 HIV/AIDS

Uganda was the first African country to introduce a comprehensive strategy to contain the spread of HIV/AIDS in the 1980s and it succeeded in actually reducing the prevalence of the disease. However, the civil wars in neighbouring countries and the atrocities of the Lords Resistance Army, as well as poverty in many districts have contributed to the increasing prevalence of the disease in the late 1990s onwards. It is estimated that the prevalence rate is about 6 percent.

In 2004, it was estimated that over a million people were infected with the HIV/AIDS virus of which 100,000 were children under the age of 15. Worldwide, there are over 43 million people living with HIV/AIDS. In Africa, over 30 million people are living with the disease. HIV/AIDS has a profound impact on economic growth and development. It is gradually distorting production and consumption patterns and adversely affects rural and urban livelihoods. HIV/AIDS also has devastating effects on education, training, health and social services and heightens the burden on a fragile social system. Both skilled and unskilled workers, professionals and university graduates are affected. The main economic impact of HIV/AIDS is on the labour force and production. As employees fall sick, absenteeism is increased, the unit cost of labour is increased and labour productivity is reduced.

In Uganda, the hardest hit sector is the agriculture sector. Agricultural production has declined, as well as rural incomes, thereby, increasing the numbers of rural poor in some areas. Low productivity in the agricultural sector inevitably reduces the supply of agricultural inputs to industry.

Life expectancy at birth has decreased quite substantially from 60 years in the early 1990s to 52 years in 2006 and as the active population age 15 to 49 years succumb to the disease, the supply of human capital will be decreased. Labour, which is usually the cheapest factor of production in the country, is becoming extremely costly. Some enterprises have to train two people for the same job and spend a lot of time and money retraining others as those already trained succumb to HIV/AIDS.

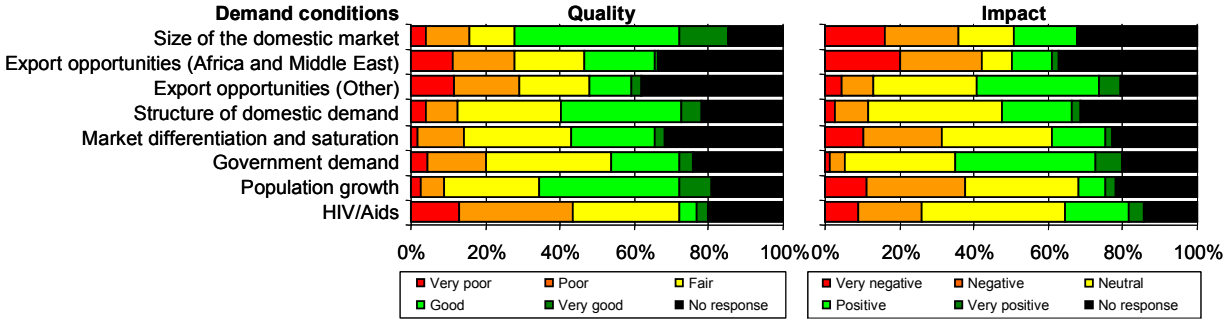
Industrial enterprises are not immune to the devastating effects of HIV/AIDS. With increased absenteeism, the unit labour cost has soared and, as in some industries, productivity has decreased. Micro, small and medium enterprises (MSMEs) are also seriously affected. Women who are normally active in this area tend to spend most of their time looking after the sick, both adults and children. Sustainable MSMEs are therefore threatened.

Consumers' priorities change with the prevalence of HIV/AIDS. The small agricultural holders who produce nutritional foods such as pumpkins, tomatoes, cow peas, sweet potatoes and a variety of fruits and vegetables find it difficult to sustain their production patterns primarily because of the overwhelming problems and constraints to agriculture. They joined the urban population in their increased consumption of refined and processed food, but at the same time increase their demand for vitamins and mineral supplements at an average prohibitive cost of approximately US$ 15 – 20 a month, if not more. The very existence for certain industries could also be threatened as consumers, in particular, those affected by the HIV/AIDS virus switch priorities and demand for products.

Uganda is not yet in a position where investors could be cautious about investing in the country. On the contrary, Uganda is one of Africa's favourite investment spots. However, if the HIV infection rates at national and district levels are not contained, the cost of production including labour costs will be too high for the country's industries to be competitive.

4.2.3 Competitiveness survey

Figure 4.15: Survey Results – Demand Conditions



In terms of size, Uganda does not have a small domestic market. With a population of about 28.2 million, industries could achieve and benefit from economies of scale. The income per capita is much higher than many African countries, which is a plus for the purchasing power of the consumers. For many of the industries surveyed (55 percent), the size of the market is considered good to very good. In the food processing industrial sub-sector, nearly 70 percent of industries surveyed give a rating of good to very good. The figure is lower for the textiles, clothing and leather industrial sub-sector where 40 percent of enterprises surveyed rate the size of the market as good or very good. Forty percent of the enterprises in the wood and wood products industrial sub-sector perceive the size of the demand as good. The printing and publishing sub-sector is also positive about the size of demand with a good rating of about 52 percent. In the non-metallic minerals sub-sector, the size of demand is rated poor by nearly 80 percent of industries surveyed. The remaining 20 percent consider the size of demand as good.

Regarding the impact of the size of demand on industrial development and competitiveness, approximately 40 percent think that the size of demand has very negative or negative impacts; another 20 percent think that it could have a positive impact. However, no response is given by about 40 percent of industries surveyed. It could be that they did not quite understand the question. For the food-processing sub-sector, the impact is positive or very positive for 60 percent of industries surveyed. The wood and wood products industries are not so favourable with their assessments. Sixty five percent are convinced that the size of the demand has very negative or negative impact on industrial development and competitiveness. A similar conviction is expressed by the non-metallic mineral industries. Nearly 80 percent of those surveyed consider size to have a negative impact (More details on the responses are contained in Annex C).

The Government of Uganda has introduced a number of initiatives to boost export promotion. The National Export Strategy (NES) has, inter alia, the following strategic objectives.

- The development and strengthening of a trade export network to help Ugandan exporters gear up for competition in the international market.

- Consolidation of the presence of Uganda products and services in priority markets.

However, industries in Uganda are faced with a number of problems and constraints identified and analysed in Chapter 2 and Chapter 3 of this industrial development competitiveness analysis, as well as in earlier sections of this Chapter. When asked about their perceptions of export opportunities for industries in Uganda, the majority of enterprises surveyed indicate that they find it difficult to penetrate export markets. Markets in Africa and the Middle East are limited with 20 percent of enterprises recognising that such avenues are fair and another 20 percent giving a rating of good. Access to European and other markets are rather restrictive - only 10 percent of enterprises surveyed consider market opportunities in Europe as good. However, over 40 percent of the enterprises acknowledge that where such markets exist, the impact on production and competitiveness could be good or very good.

The structure of demand is rated good by over 40 percent of the enterprises. For some industries, the structure of demand is not a major concern. This percentage is replicated in the food processing industries. The wood and wood products industries consider the structure of demand as good with positive impact on production and competitiveness. The non-metallic minerals industries register a fair rating for the structure of demand and its impact on production and competitiveness – a staggering 80 percent of enterprises.

Regarding market differentiation and saturation, there are mixed results. Some enterprises indicate that the domestic market is saturated and that they are concerned about future investment opportunities and their very survival in the sub-sector. The textiles, clothing and leather industries are in that category. The non-metallic minerals industries also acknowledge that the domestic market is saturated, but its impact on production and competitiveness is considered as neutral. No response on this issue is received from the wood and wood products industrial sub-sector.

Government demand for industrial products is limited. Fifty percent of enterprises surveyed consider government demand to be very poor or fair. However, they recognise the significance of government demand on production. Government demand for textiles, clothing and leather is very poor to fair for nearly 60 percent of enterprises. In the food processing sector, 40 percent of industries give a rating of very poor to poor and another 35 percent believe government demand is fair.

The composition of domestic demand impacts positively or negatively on competitiveness and is essential for national competitive advantage. If there is a growth in domestic demand, this advantage could be strengthened. As indicated earlier, domestic demand is more or less unsophisticated in Uganda and with many industries in need of restructuring or improvement in production facilities, it is unlikely that they could offer the requisite make-over of products to attract more consumers.

The impact of HIV/AIDS on industry is quite alarming. Seventy-two percent of enterprises believe that HIV/AIDS is a threat by giving a rating of very poor to fair. Only about 8 percent of enterprises have a positive view of HIV/AIDS and its impact

on production. The most affected industries are textiles, clothing and leather industries, non-metallic minerals industries, electrical machinery industries, transport equipment industries. (More details in Annex C of this Analysis)

4.2.4 Prioritisation

- The implementation and continuous improvement of the Uganda National Export Strategy should be promoted to ensure better export opportunities and increase in the volume of products for exports.

- Selective protection initiatives should be introduced for a limited time frame to promote industries that could be potentially competitive.

- A comprehensive assessment of the impact of HIV/AIDS on industrial production and consumption patterns should be undertaken with a view to introducing strategies, code of practices in industry and programmes to sustain production and livelihoods.

4.3 Related and supporting industries

In Europe, the United States of America and in the newly industrialised countries of Asia, industrial enterprises tend to share and coordinate activities. There is a strong presence of related industries and other support services all of which influence industrial growth and the way goods are produced. The existence of such industries in a particular country encourages competition among industries and there is always a desire to innovate, improve production technology and production methods, as well as the quality of the products. It is also very likely that inefficiencies could be eliminated and the growth of lead firms within an industrial sub-sector could emerge.

Michael Porter argues that related and supporting industries, including supporting institutions such as those providing financial services, market information, etc. could have a positive impact on the growth and performance of industries. Supporting industries coordinate and share activities in the value chain, thereby, strengthening a country's industrial enterprises to compete in certain lines of production and actually achieve national, as well as global competitiveness.

In Italy, the fashion industry comprising of industries producing footwear and other leather good, clothing and jewellery coordinates and shares activities to the extent that tremendous forward and backward integration of industries have been established. Throughout the various seasons, these industries cooperate and share information on design trends to the extent that a particular design trend in the footwear industry could influence the designs of the main fashion houses in the clothing industry. They coordinate production trends to the extent that the introduction of certain colour of shoes for Spring could influence the colour trend of clothes manufacturers. Similarly, the design and colour trends of the clothing manufacturers could trigger the introduction of certain shoes to correspond with the

style and colour of garments being produced. There is also a further integration into the leather industries. They are expected to produce the right types of leather for the production of the shoes for Autumn, Winter, Spring and Summer collections. Leather goods and footwear producers in other countries in Europe and the USA also rely on the leather industries in Italy for their supply of finished leather. The good quality of leather produced in Italy is recognised and in demand globally. The leather industry in Italy is therefore internationally competitive. The close working relationships of the Italian suppliers of leather has resulted in tremendous competitive advantages.

A few African countries have established close supplier working relationships with Italian leather and footwear manufacturers. Ethiopia and Eritrea, by virtue of their historical ties with Italy, produce leather that are exported to Italy for use in footwear and leather production. Ethiopia and Eritrea could be regarded as global competitors in leather but not in footwear and leather goods production.

The leather goods and footwear industry in Uganda is relatively small but has tremendous potentials. The quality of the leather in Uganda is high. However, large quantities of leather, approximately 85 percent or more, are exported as raw leather. The quality and grading of leather should be improved if Uganda is to join Ethiopia and Eritrea in successfully exporting finished leather to the European Union, Italy in particular. Regarding footwear, there are three main enterprises producing footwear, namely Uganda Bata Shoe Company, Uganda Shoe Company and Simba Footwear Ltd.. Bata Shoe Company is the largest footwear manufacturer with modern footwear production technology. With an installed manufacturing capacity of five million pairs of shoes a year, the company is in a position to establish work relationships with leather producers. However, Bata produces more rubber and plastic shoes than leather shoes, the reason being inadequacy of leather processing, tanning and finishing facilities. Bata produces mainly for a domestic market with unsophisticated demand and exports small quantities of leather and plastic shoes to Rwanda and the Democratic Republic of Congo. There are also a number of small-scale footwear producers including artisanal footwear enterprises. Some enterprises have established informal working relationships among themselves. However, cooperation arrangements between large and medium-scale enterprises and micro and small enterprises are yet to be nurtured.

The textiles and clothing industrial enterprises in Uganda have strong competition from similar industries in China, India, Pakistan and Mauritius. Their plants and machinery are basically outdated, labour productivity is also very low and there is a dearth of skilled workers in various aspects of textiles production. The lack of technology and technological information on how to improve production techniques and the quality of textiles products are also frustrating the development of textiles and clothing industrial enterprises in Uganda.

The food processing industrial sub-sector is one of the most progressive industrial sub-sectors in Uganda with an average annual growth of about 9 percent. The success and continuing growth of the sub-sector depend not only on food crop production but also on the availability of cold storage facilities, the quality of packaging materials and efficient and effective transportation. Cold storage facilities for processed food are inadequate. The coordination of activities, as well as shared

activities among food manufacturers in the value chain is negligible. There is very little horizontal and vertical integration of food processing industries.

There is also a dearth of related services of relevance to industrial development in various industrial sub-sectors. Such services include technology development services, information services and marketing services. Industries in Uganda tend to depend on outside sources for certain inputs, spare parts and components. Regarding the latter, the development of engineering industries could, in time, provide adequate supply of intermediate products, and spare parts and components for all the major industrial sub-sectors.

4.3.1 Lack of engineering industries to support the industrialisation process

The existence of engineering industries producing a minimum set of capital and intermediate goods, as well as, spare parts augurs well for competitiveness. In common with other African countries, engineering industries in Uganda rely heavily on the importation of essential raw materials and their performance is restricted by the limited size of the domestic market and inaccessibility to foreign markets. As a result, extremely high prices are charged for engineering goods produced locally. The viability of these industries depend on the availability of foundry, forging and heat treatment facilities, as well as machine shops, technology repair and maintenance facilities within a particular production complex or at the national level. In some industrial sub-sectors, industrial production has been constrained by the lack of spare parts, components and other intermediate inputs, resulting in considerable under utilised installed manufacturing capacity in many branches of such industries.

The lack of research and development facilities, product standardisation and engineering design facilities is also contributing factor to the low level of performance of these industries and industrial competitiveness.

4.3.2 High dependence on imported inputs/supplies

The domestic production of raw materials for industry in Uganda is inadequate. In industrial sub-sectors where domestic supply of raw materials is available and perhaps adequate, many industries still import raw materials from other countries.

The import content of body components and ancillaries is also extremely high, as very little manufacturing of these products is carried out at the domestic level. As foreign exchange is needed to procure these products, the inadequacy of foreign exchange often result in non-availability or shortage of such products and, inevitably, the scale of production is also drastically reduced and the ability of industries to compete is greatly impaired.

4.3.3 Low involvement in cluster development

Small and medium-scale industries can benefit from cluster development whereby a group of industries in an industrial sub-sector or related industrial activities come together to foster business network or inter firm collaboration to access and secure information on technology and markets, conduct market research, procure raw materials and other inputs, undertake raw materials testing for product improvement, as well as establish common production and service facilities. However, in Uganda, cluster development is relatively a new concept and very few industrial sub-sectors are involved in cluster development. The existing cluster arrangements are too general with very little support systems to ensure sustainability of cluster development.

Michael Porter's definition of an industrial cluster is that of *"a geographically proximate group of inter-connected companies and associated institutions in a particular field, linked by commodities and complementarities".* Such industries come together to minimise the constraints to their development, establish linkages for the local sourcing of goods and services, as well as for market access, business support services, etc.

In Uganda, different shades of cluster arrangements have emerged in the textile industry, fisheries and dried fruit and nut processing. Operators in the flower industry have succeeded in establishing cluster arrangements. However, cluster development and value chain cooperation are relative new initiatives and concepts in Uganda that should be promoted, especially for micro, small and medium scale enterprises (MSMEs).

4.3.4 Sub-contracting arrangement

Small-scale industries are usually the major producers of ancillaries and complementary goods to large and medium scale industries. This is not the case in Uganda and in most African countries, as components, spare parts and other ancillaries are usually imported. In Europe and the newly industrialised countries of Asia, small-scale industries, once established have encouraged the growth of an integrated and interlinked industrial sector, primarily through sub-contracting arrangements.

Subcontracting is a very important mechanism to promote and ensure the local production of imported inputs. Large and medium-scale industrial enterprises in Uganda hardly ever subcontract to smaller industries. The small-scale entrepreneurs are also not well informed about possible areas for subcontracting between large and medium-scale firms and small-scale industries. It should be acknowledged, however, that subcontracting arrangements between the food processing industries and the packaging industries are very encouraging.

4.3.5 Institutional and support services

These include trade and business associations, corporate financial services, after sales services and various forms of business development services. There are a number of business associations, notably, The Uganda Manufacturer's Association, The Private Sector Foundation Uganda and the Uganda National Chamber of Commerce and Industry. Their respective roles in the industrialisation process have been addressed earlier in this competitiveness analysis. Whereas these institutions have been quite successful in policy advocacy and in collaborating with the Government to improve the business environment to attract more domestic and foreign investments, their role in research and development, forging sub contracting arrangements for their members, securing technology and information on technology and markets has been very limited.

4.3.6 Competitiveness survey

In some of the industrial sub-sectors, for example, the food processing sub-sector, value chains and cooperation along the value chains though not advanced are encouraging. Many industries, however, do not consider the existence of supplier industry as important for competitiveness. Given the level of development in Uganda, in particular, the low level of industrial development, very little collaboration should be expected from industrial operators. Approximately 60 percent of enterprises surveyed consider the quality of trade and business associations to be poor or fair. Only about 20 percent of enterprises give a rating of good. A similar percentage believes that these associations have very little impact on industrial production and competitiveness.

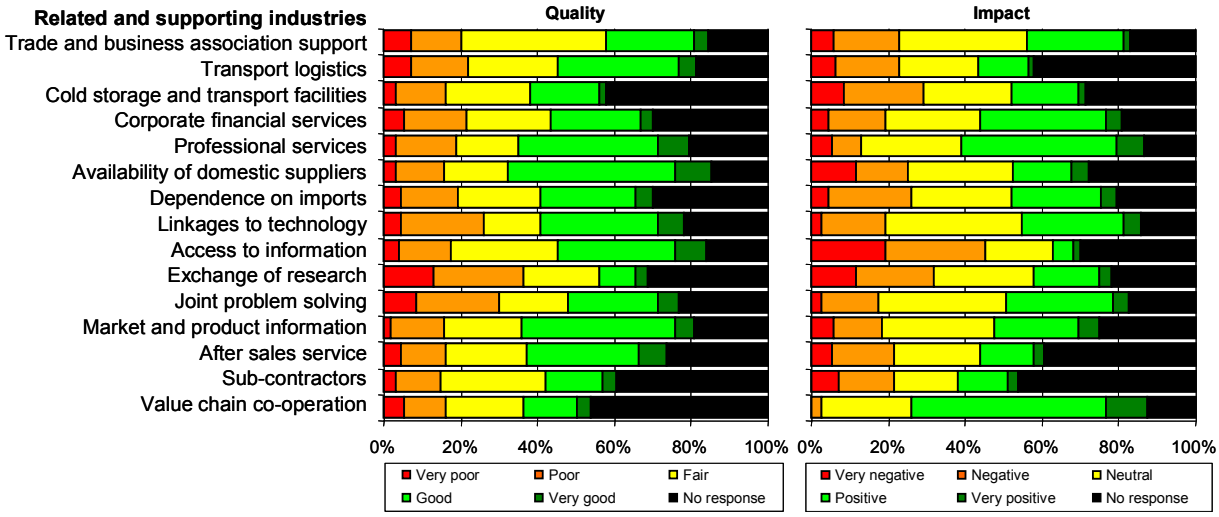
The services of professional firms, such as those offering consultancy services, engineering, management and production services are highly appreciated by about 40 percent of the enterprises surveyed. They also consider their impact on industrial development and competitiveness as positive or very positive. Industries in the wood and wood products sub-sector do not quite benefit from professional services. Only about 40 percent of enterprises consider the existence of such services as fairly relevant to their needs. The remaining 60 percent of the enterprises have no answers to the question. The situation is just as bad in the chemicals, rubber and plastic industrial sub-sector where approximately 75 percent of enterprises give a rating of very poor to fair. Cold storage and transport facilities are a major concern, particularly, for the food processing industries. Only about 18 percent of enterprises surveyed consider the existing facilities as appropriate or good. As should be expected, many enterprises indicate that the impact on production and competitiveness was very negative, negative or neutral depending on the sub-sector. Enterprises in the textiles, clothing and leather sub-sector are not that concerned about cold storage and transport facilities. However, in common with other industrial sub-sectors, they do recognise that transport logistics are poor.

The availability of corporate financial services is a thorny issue. Forty four percent of enterprises surveyed consider corporate financial services as ineffective or unreliable. Some 38 percent are more positive with a rating of good. Only about 15

percent of enterprises in the food-processing sub-sector consider the existing services as good, and for over 60 percent of enterprises, the impact of not having reliable and effective corporate financial services could be devastating to improving production and competitiveness.

Subcontracting is one of the weakest elements. Many enterprises are unaware of the advantages and, surprisingly so, in the wood and wood products sub-sector. Access to information and the exchange of research are considered important but the existing reality is that, for many industrial enterprises, especially in the wood and wood products sub-sector, the non metallic minerals sub-sector and the electrical machinery sub-sector this element is the weakest link. The food processing industries also voice concern about access to information and the exchange of research and research results. The results of the survey are summarised below.

Figure 4.17: Survey Results – Related and Supporting Industries



4.3.7 Prioritisation

- Information mechanism should be developed to provide industrial technological and market information of relevance to product improvement and competitiveness.

- Large and medium-scale firms should be encouraged to contribute to the development of small firms by way of subcontracting arrangements.

- Financial institutions and banks should grant soft loans to small enterprises, especially if such enterprises are involved in the production of spare parts, components and ancillaries.

- Both the Government and the organised private sector should work jointly to strengthen technological and research institutions to provide better services, identifying technological needs, in analysing available technology and in developing technology, including engineering design and manufacturing.

- Joint marketing and market research activities should also be promoted by the Government and the private sector.

- Cluster studies for the development of cluster initiatives should be carried out especially in areas where cross border initiatives can be developed.

- Business networking and inter-firm collaboration should be promoted.

4.4 Firm strategy, structure and rivalry

In his analysis of the *"Competitive Advantage of Nations"* (1990), Michael Porter defines "*firms strategy structure and rivalry*" as the conditions in a nation governing how companies are created, organised and managed. Macro-economic conditions, per se, cannot determine the competitiveness platform of a nation. Industrial enterprises operating within a country should be able to exploit locational advantage and overcome any locational disadvantages (Enright 2000)[47]. Industrial enterprises should ensure that they are in a competitive position. They should adopt strategies and introduce realistic and effective systems of corporate governance that would have a positive impact on the management and production of the enterprises. As indicated earlier in this analysis, companies and not countries compete in the global market. Therefore, corporate strategies, corporate governance and the nature and scope of domestic rivalry among firms could determine the competitive position of an enterprise in a global economy. The environment in which enterprises operate is however, a significant factor. Government policies, the macro economic conditions the economic potentials of the country, in particular, investment potentials are all essential elements for competitiveness.

The ways in which industrial enterprises are organised and managed depend on the social history of a country, its education system and culture. If education is functional to production, entrepreneurial capabilities are easily recognised and, if strengthened with corresponding policies and relevant infrastructure in place, industrial pioneers could emerge to transform the economic landscape. The environment in which industrial enterprises operate can influence industries' decision to improve production processes through innovation and creativity driven by research and development. If innovation is encouraged and awarded, industries tend to succeed. Employees with special and advanced skills and competencies are motivated and will continue to be creative and to innovate with a view to improving production processes, as well as products.

Porter realises that because of the complexities of the various elements of firm structure and rivalry, this particular determinant of competitiveness could be of little relevance to the developing countries. The level of development in these countries and the structure and performance of the industrial sector are major deterrents to potential investors. Existing industries, however, should position themselves to be competitive. They should endeavour to source knowledge, establish strategic

[47] UNIDO. *Public-Private Partnerships for Economic Development and Competitiveness with Special Reference to the African Experience, May 2000*

alliance with supplier industries, introduce strategies and production structures that will enable them to produce good quality products and services at competitive prices for the domestic market and for exports.

4.4.1 Uganda's firm strategy, structure and rivalry

The structure of industry which has emerged over the last three decades in Uganda, as a result of the import substitution strategy, is one that is heavily oriented to the production of consumer goods and highly dependent on imported raw materials and other factor inputs. The scope for backward and forward integration of industries is, therefore, very limited. The industrial sector though diversified comprises mainly of agro industries - food processing, textiles, clothing, leather and footwear industries, wood and wood products industries, in particular. There are a number of enterprises producing intermediate and capital goods. However, most of the industries are small and medium-scale industries producing primarily for the domestic market. There are large industrial firms producing for both domestic and foreign markets. A few of them are capital intensive.

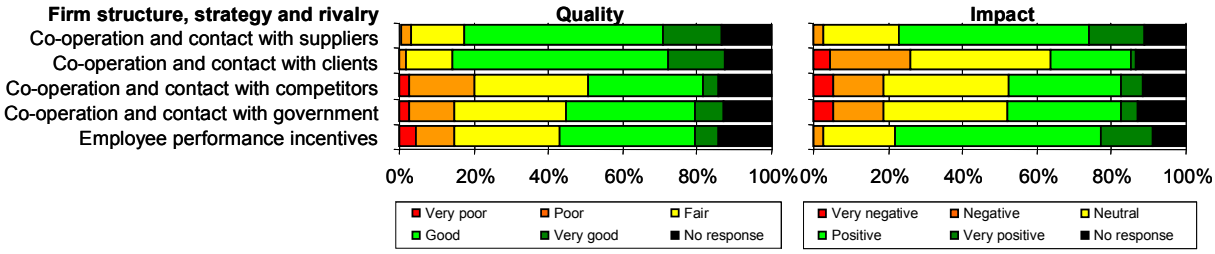
The small and medium enterprises are mainly family owned business operating on a day to day basis without any clearly defined strategy for production and sustainability. They are not that concerned about products or process improvement with a view to penetrating new markets. Intra-firm relationship is rare among the small and medium enterprises except in sub-sectors where some forms of cluster arrangements have been introduced. Cooperation with suppliers and clients is not unusual. It all depends on the product being produced and the level of sophistication of the clients for example.

In the late 1990s, when the European Union imposed a ban on all fish products from Uganda, Tanzania and Kenya, the fish processing plants with the full support and cooperation of the Government of Uganda introduced major initiatives aimed at improving the quality of fish catch, fish handling, cold storage transportation, fish processing and packaging for export. The ban was subsequently lifted and Uganda has restored its position as one of the main African suppliers of fish, in particular, the nile patch to the European Union. However, for a country that has identified the fish industry as one of the core industries for sustainable industrial development and competitiveness, the fish research and development facilities are grossly inadequate. In addition, the Government, fish farmers, producers and the fish processing industries should define strategies and plans not only to maintain the lake fish levels but also to continually improve technology and practices, including the introduction of value added fish products.

There is hardly any rivalry among the industrial enterprises. This is perhaps due to the structure of domestic demand, which is basically small and unsophisticated. The low rivalry among existing industries has encouraged loose alliances between industrial enterprises (both upstream and downstream).

4.4.2 Competitiveness survey

Figure 4.18: Survey Results – Firm Structure Strategy and Rivalry



In general, existing industries tend to cooperate with suppliers of raw materials and other imports and keep close contacts at all times. Some 68 percent of the enterprises surveyed indicate that such a relationship is good to very good. The impact on production is also rated high with nearly 60 percent giving a positive rating. Although approximately 75 percent of enterprises consider cooperation and contract with clients as good to very good, only about 20 percent think that such a relationship would have a positive impact on production and competitiveness.

At the sub-sectoral level, 100 percent of enterprises in the transport equipment sub-sector consider both the quality and impact of their cooperation and contact with suppliers and clients as good. In the electrical machinery sub-sector, the rating is 70 percent. Enterprises in the non-metallic minerals industrial sub-sector also acknowledge the significance of such a relationship with 80 percent good rating and 25 percent of enterprises with a rating of very good for both quality and impact. In the food processing industries, 22 percent of enterprises surveyed have a satisfactory relationship with suppliers and clients. The remaining 75 percent of enterprises have a good to very good cooperation and contacts with suppliers and clients. (More details are contained in Annex C of this analysis).

Cooperation with competitors is not widespread with only 30 percent of all the enterprises surveyed indicating that they have good cooperation with competitors. Most of them are in the chemicals, rubber and plastics industrial sub-sector, the metals and metal products sub-sector and the electrical machinery sub-sector. In the transport equipment sub-sector, cooperation is poor with negative impact on production. The situation is just as bad in the wood and wood products sub-sector. Surprisingly, in the sub-sector where cooperation with competitors should be vital, namely the food processing industrial sub-sector, only about 20 percent of enterprises have good cooperation and contacts with competitors and rivals with another 34 percent having a satisfactory relationship.

There are still major problems relating to cooperation with Government. However, some 40 percent of the enterprises surveyed acknowledge that there is a good to very good cooperation and contact with the Government. The Government of Uganda has adopted a private sector led development strategy and, in recent years, it has improved its role as a facilitator of private sector development. The Government has introduced major initiatives and adopted policies, namely, monetary, fiscal, and agricultural, policies etc. all aimed at macro-economic stability

with positive impact on industrial production. For industries in the chemicals, rubber and plastics industrial sub-sectors, cooperation and contact with government is not so impressive. The worst scenario is in the transport equipment sub-sector where 100 percent of the enterprise considers the relationship to be very poor.

4.4.3 Prioritisation

- Introduce measures to improve public-private partnership at the sub-sectoral level.

- Highly skilled employees and employees with specialised skills should be encouraged to innovate and not to be bogged down with routine at the enterprise level.

- Develop and strengthen cluster development especially within the supply chain and for more value added.

4.5 Quality and environmental management

4.5.1 Quality and standards

The Poverty Eradication Action Plan 2004/2005 – 2007/2008 recognises that a major constraint to market access/entry for Uganda products is the failure of private enterprises to comply with international quality and standards. If Ugandan enterprises are desirous of penetrating foreign markets with their products, they must adopt international standards, conduct quality tests, issue test results and certificate that are recognised and accepted globally. They should also introduce good production practices to safeguard the health of consumers locally, as well as the interests of regional and international clients.

The extent to which Uganda has been able to fulfil the various quality requirements and standard varies. In the late 1990s, the fish export industry in Uganda in common with the fish export industry in Kenya and Tanzania was severely criticised for its poor fish management by the European Union. The European clients reported that there were high levels of bacteria and microbiological contamination in fish products and, as stated earlier in this analysis, there was a total ban on the importation of fish from all three countries. With the assistance of the EU and technical assistance from UNIDO, the Government and the private sector were able to establish new laboratory facilities and introduce measures to improve fish handling and management, as well as the quality of fish being exported. The ban was subsequently lifted in the year 2000.The flower industry, on the other hand, has successfully mastered the quality requirements for the limited range of products being exported.

The Uganda National Bureau of Standards (UNBS) has the responsibility of promoting standardisation, quality assurance, laboratory testing and metrology. It is expected to safeguard the domestic market from the importation of inferior quality goods and provide information on quality and standards of products, thereby, assisting enterprises in securing wider markets for their products. The UNBS also issues certificate on export standard. The quality infrastructure in Uganda is extremely weak, laboratory facilities are inadequate and requisite critical skills are lacking. However, the Bureau has successfully developed hundreds of national standard, which are legally binding. The existing standards, quality, accreditation and metrology should be critically assessed with a view to developing an integrated quality policy for competitiveness and sustainable production.

The Uganda National Bureau of Standards should establish more effective alliances and work relationships with line ministries involved in food safety and health. Some of the industries have laboratory facilities to provide chemical and microbiological services. Basic quality infrastructure and services are provided by some of the large enterprises.

4.5.2 Environment

Industrial enterprises in Uganda are concentrated in Kampala and Jinya, which is on the shores of the Lake Victoria and the Nile River. Water pollution, therefore, could be a serious problem if waste water is not effectively managed, recycled and disposed of. Solid wastes from raw materials, solvents and packaging materials also pose serious environmental problems. In addition the intensive indiscriminate use, exploitation and processing of agricultural and mineral raw materials could destroy sustainable livelihood. In Uganda, the Government, the private sector and the people are aware of environmental issues and the implications for production and rural and urban livelihoods. The National Environment Statute, 1995 provides policy guidelines on environmental management, conservation of resources, including water resources, as well as rules and regulations for environmental protection. The National Environmental Management Agency (NEMA) carries out its responsibilities with the full participation of the Government, the private sector and relevant non-governmental organisations (NGOs). Both the private sector and NGOs are represented in the Board of NEMA. The organised private sector works closely with NEMA. In particular, the Uganda Manufacturers Association (UMA) has a strategic relationship with NEMA with the establishment of an environmental liaison unit in UMA.

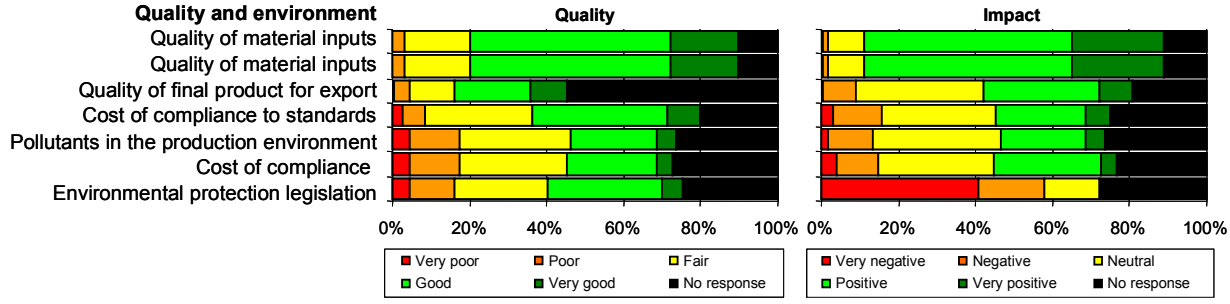
Environmental information sharing is also an important area of collaboration. The existing environmental statute recognises the need to collect, analyse, store and disseminate information on the environment, as well as environmental management, covering such issues as pollution control, biodiversity, soil and water conservation, and fuel wood energy. Environmental information management is, however, constrained by inadequate institutional mechanisms, in terms of institutional infrastructure, corresponding capabilities and coordination among the relevant government ministries and departments.

It is, however, not uncommon for new industries to conduct environmental impact assessments simply because it is a legal requirement and the fact that the population at large is empowered to take legal action against any enterprise for violation of environmental standards or non-compliance with traditional environmental values. The legal enforcement of environmental issues should not be difficult as guidelines and regulations on environmental impact assessment and efficient standards have been developed and published in government gazettes.

Existing manufacturing enterprises are fully aware of the consequences of their non-compliance to the existing regulations. Waste water and solid waste pollution are major problems. These wastes are not treated and their indiscriminate disposal in land and water bodies continues to aggravate the environmental problems and subsequently resulting in precarious health conditions.

4.5.3 Competitiveness survey – quality and environment

Figure 4.19: Survey Results – Quality and Environment



The quality of raw materials used by existing enterprises is considered good by approximately 60 percent of enterprises surveyed and very good by an additional 14 percent. The positive impact of good quality raw materials on production and competitiveness is recognised by a corresponding 74 percent of enterprises surveyed. In general, the agro processing industries, mainly, food processing, textiles, clothing and leather are satisfied with the quality of raw materials with 75 percent giving a rating of good to very good in the food processing sub-sector and approximately 92 percent with a rating of good to very good in the textiles clothing and leather sub-sector.(Details contained in Annex C).

In the wood and wood products sub-sector, only about 27 percent of enterprises consider the quality of raw materials to be good. As production is mainly for the domestic market, with unsophisticated demand, producers are not so keen in identifying new source of supply of good quality raw materials. The quality of raw materials in the printing and publishing industry is also quite good with over 60 percent rating. The impact on production and competitiveness is also positive for a similar percentage of enterprises. Enterprises producing electrical machinery are also quite satisfied with the quality of raw materials -100 percent good rating. This should be expected as the most of the raw materials are imported. The survey result

for the quality of final products for exports is astonishing, especially as the Government is vigorously pursuing its export strategy. Twenty percent of enterprises consider the quality of their products to be good, another 8 percent as very good. Fifty five percent of enterprises fail to respond to the question. However, they are aware of the impact on production and competitiveness. At the sub-sectoral level, about 60 percent of enterprises in the food processing sub-sector refrain from answering the question and only about 20 percent consider the quality of their final products as good and very good. Manufacturers in the textile, clothing and leather industrial sub-sector are more confident of their product with a rating of fair by 38 percent of enterprises and ratings of good to very good by over 50 percent of enterprises surveyed. They are also fully aware of the negative or positive impact on production, competitiveness and sustainability. In the chemicals, rubber and plastic industrial sub-sector, although about 47 percent of enterprises provide no response to the quality of final products, the remaining 57 percent of enterprises consider the quality of their products to be good or very good. They are also very confident about the positive or very positive impact on production and competitiveness.

Regarding standards, about 44 percent of all enterprises surveyed are concerned about the cost of compliance to standards. Some 13 – 17 percent have very poor or poor compliance with standards. This could be partly as a result of the non-existence of national standards for their products. The resulting impact on production is mainly negative to neutral with only about 40 percent acknowledging that compliance with standards could have a positive or very positive impact on production.

The manufacturers of textiles, clothing and leather are fully aware of the consequences of not complying to standards with over 45 percent acknowledging that the impact on production is also good /very good.

On pollutants in the production environment and other environmental issues, manufacturers are fully aware of the existing situation and the consequences. Overall, some 48 percent are not satisfied with the production environment. Thirty six percent consider the production environment to be good to very good. Manufacturers in the transport equipment industrial sub-sectors provide no response to the environment issues raised in the questionnaire., The food processing sub-sector has, in a number of cases, paid heavily for non-compliance to environmental issues, whether its pollutant in production environment or environmental practices in general. Only a small fraction – less than 20 percent of those surveyed indicate a poor record on environment issues. Twenty eight to thirty percent of enterprises have a satisfactory record and over 36 percent of enterprises have good quality pollutant management, as well as comprehensive environmental regulations and practices. The response of the wood and wood products industry to issues of compliance and environmental practices is not encouraging. The wood and wood products industries utilise raw materials (wood) that could easily lead to land degradation if logging activities are not efficiently and effectively managed. The MEPA should establish a definite work relationship with existing association of wood and wood product manufacturers to ensure the joint monitoring of production practices compliance to environmental standards.

4.5.4 Prioritisation

- The existing standards, quality accreditation and metrology infrastructure should be strengthened to improve the quality of products, testing and calibration.

- The MEPA should establish cooperation/collaboration with relevant government ministries with a view to assisting enterprises to introduce measures that will improve the quality of products and achieve high-level quality and standards for products being exported to ensure competitiveness and sustainability.

- The enhancement of existing laws and regulations on pollution and other environmental issues should be strengthened by the introduction of effective pollution control mechanism and environmental audits to minimise pollutants and health hazards from industrial production.

- The existing standards, quality accreditation and metrology infrastructure should be critically assessed with a view to developing an integrated quality policy for competitiveness and sustainability of production.

4.6 Government

Although it is acknowledged that firms compete and not countries, the role of government is crucial for industrial development and competitiveness. In Uganda, the Government, in particular the Ministry of Finance, Planning and Economic Development, has been responsible for defining macro-economic policies, poverty eradication plans and competitiveness strategies in consultation with other ministries and institutions - both public and private. The Ministry of Tourism, Trade and Industry is expected to formulate an integrated industrial policy in an interactive process, involving the key stakeholders in the public and private sectors. The main reason being that most of the factors that can influence industrial development are outside the domain of the Ministry of Tourism, Trade and Industry. Industrialisation is influenced by existing monetary policy, fiscal policy, exchange rate policy, agricultural policy, investment and technology policies, mineral development policy and human resource development policy. Therefore, all the key stakeholders in the above mentioned policy areas should be able to buy into the integrated industrial policy.

The Government of Uganda has an array of policies in place with the exception of an integrated industrial policy. This competitiveness analysis and the corresponding integrated industrial policy is expected to close that gap. Macro-economic stability has been achieved with the introduction of sound macro-economic policies. Through the Medium-Term Competitive Strategy and export promotion strategies, measures are being introduced to diversify production, improve the quality of products to ensure better access to foreign markets. The Uganda Investment Authority has also

transformed itself to provide improved and quality investment promotion services, as well as facilitation and completion services.

The Government is vigorously pursuing its road development, rehabilitation and maintenance programmes, as well as other infrastructural initiatives within the framework of the Poverty Eradication Action Plan and the 2006 Manifesto of the National Resistance Movement (NRM). It should be realised, however, that there is a limit to what the Government can do as it also lacks financial resources, the requisite competencies and technological resources to provide adequate infrastructure and other factor conditions for industrial competitiveness. The private sector has its own limits as well, but it could provide the technological know-how, some finances, etc. to ensure that the existence of such factor conditions are conducive for industrial development and competitiveness. In this regard, there is a definite need for a national and sustained public private partnership that will ensure collective mobilisation of resources and joint efforts to address the critical problems of industrialisation, sustainable industrial development and competitiveness in Uganda.

5. GROWTH POTENTIALS & INVESTMENT OPPORTUNITIES

5.1 Potentials for diversification of industrial production

Uganda aspires to be fully integrated in the global economy, an economy that is dynamic in the trade of goods, services, labour, capital and knowledge resources. Uganda's vision, therefore, is to be integrated in the movement of such factors with a view to transforming the economy into a competitive and export oriented economy, as well as transforming poor peasant societies into modern industrial societies. The two priority sectors for this transformation are agriculture and industry.

Agriculture is the mainstay of the economy and the principle industrial production base is agro-processing. Uganda produces a variety of agricultural products such as coffee, tea, tobacco and cotton, the bulk of which is exported as raw materials or with very preliminary processing.

The structure of industry is basically oriented to a very limited semi-processing of export commodities and the production of basic consumer goods. Some of the existing industries are overwhelmingly dependent on imported raw materials and other factor inputs. The production of intermediate goods and consumer durables is relatively minimal and the production of capital goods is virtually non-existent

The existing forward and backward integration of industries and between industry and other productive sectors is also very narrow. To address this problem, the country aims at producing and exporting, on a competitive basis, a wide range of "*diversified, high quality and value added goods and services*". It is quite apparent that a diversified manufacturing sector could produce intermediate goods and some capital goods that would be required by industry. It is also likely that additional varieties of consumer goods would be produced. The whole industrialisation process could lead to a network of input/output relationships with many product groups and could accelerate inter-industry linkages, thereby, ensuring the widening and deepening of the industrial base. Given that the production base of Uganda is agriculture, the diversification of industrial production will be primarily vertical diversification with emphasis on resource-based industrialisation involving the processing of available raw materials in the country. The existence of such raw materials – natural resources - assures some comparative advantage for Uganda in the production of basic consumer goods and a limited range of intermediate goods. It does not, however, provide any assurance of competitiveness. It should also be noted that the mere existence of natural resources – raw materials for industry, per se, does not give a country competitive advantages. Other elements of production that should be considered are, for example, the cost of production, the price of products, as well as the quality of the products.

With a population of about 28.2 million characterised by high unemployment and low income, Uganda must definitely aim to be fully integrated in the world industrial system and the global economy. The vertical diversification of industry will create employment, increase the volume and value of exports, generate income and

contribute immensely to poverty reduction and its subsequent eradication. Having accepted that diversification is the way forward, what broad categories of industries should Uganda pursue. The following are considered appropriate.

- Industries utilising agricultural raw materials (agro-based) and producing, in particular, food, textiles, clothing, fish, leather and footwear

- Industries utilising forest-based resources and producing wood and wood products, furniture, paper, etc.

- Industries utilising the existing non-metallic mineral resources in Uganda and producing in particular, cement, ceramic, tableware, kitchenware, etc.

- Industries utilising mineral resources – metal and metallurgical resources and producing basic metals and metal products for the intermediate and capital goods industry.

The diversification of industry should however not be limited to the above-mentioned categories. There is scope for development in the engineering and chemical industries.

Most of the above-mentioned categories are very capital-intensive industries with rapidly changing technologies to ensure continuous competitiveness and sustainability. Some are characterised by economies of scale that are essential for the efficient use of capital and technology intensive industries. For the mineral based industries, alliances and partnerships may well be established between Uganda industrial operators and multinationals with vested interest in a particular sub-sector or products.

In addition, the internal and external factors prohibiting a successful competitive and sustainable industrial sector in Uganda should be properly and adequately addressed. These factors have already been analysed in previous chapters of this industrial development/competitive analysis.

5.2 Agro industries

The agro-industrial sub-sector in Uganda comprises of firstly, food processing industries, namely, those producing maize flour, vegetable oils, meat and dairy products, coffee, fish etc. and, secondly, industries producing other agro-based products such as textiles, garments, leather, leather products, footwear etc.

Chapter 2 of this industrial development/competitive analysis already provides an insight into the structure and status of agro-industries.

5.2.1 Food processing

The food processing industry is characterised by relatively small economies of scale, low to medium capacity utilisation, high labour productivity and relatively low capital investments. However, production in this sub-sector is encouraging with fairly good rates of growth for many production units. There are a number of problems and constraints impeding the development of the food processing industries. These include the following:

- Inadequate raw materials
- Lack of research and development facilities which offer opportunities for raw materials testing and improvements in process technology and product quality
- Poor and indiscriminate location of industrial plants with wide ranging problems relating to the collection of raw materials and the marketing and distribution of finished products.
- High cost of production, poor quality products and high prices
- Inaccessibility to foreign markets, global markets, partly due to inability to meet quality and standards of the European and Asian countries, as well as the USA.

It should be noted however that various initiatives are in place to boost production of agricultural raw materials to ensure food security and sustain industrial production.

5.2.2 Other agro-based industries

Although Uganda had thriving industrial enterprises in this sub-sector in the 1960s and 1970s, very little attention was paid to selecting the right kind of technologies. Agro-based industries of the types mentioned above are capital intensive and in recent years they have become increasingly technologically sophisticated. The existing reality is that, for most of the plants, economies of large-scale production are a prerequisite for efficiency and sustainability. Agro-based industries are also faced with, inter alia, the following problems and constraints.

- Inadequate domestic production of raw materials and the continuing practice of importing raw materials even in cases where the domestic supplies are adequate.
- The shrinking size of the domestic demand for such products as a result of low incomes and poverty in the rural areas where the majority of the population resides..

- Severe competition from high quality and low priced goods imported from Asia and elsewhere.

- Increase in the number of industries producing similar goods; procurement of reconditioned or second hand machinery, thereby, artificially increasing investment costs and the costs of repair and maintenance of plants and machinery.

- Poor design, specification and standardisation of products which actually frustrates the external demand for such products, limit market access to Europe and elsewhere, as well as the export earning capacities of enterprises.

- The limited range of intermediate goods industries, including those producing spare parts and components and inadequate capabilities for maintenance and repair of plants and machinery.

In spite of these constraints and major challenges, there are tremendous opportunities for industrial growth and development

5.3 Growth potentials and value addition

A major objective of the Medium Term Competitiveness Strategy (MTCS) 2005 – 2009 is to improve *"the economic and institutional environment for the development of the private sector*[48]" with a view to increasing productivity and competitiveness. The MTCS 2005 – 2009 also aims at the diversification of production towards higher value added products and to improve market access in the global economy.

Uganda has tremendous advantages in producing coffee, cotton, and fish and in raising livestock, all of which are agricultural raw materials for agro industrial processing.

5.3.1. Coffee

Uganda's share of world production of coffee is approximately 2.7 percent. Some 0.4 percentage point behind Ethiopia but higher than Kenya and Tanzania with approximately 1.2 percent and 0.7 percent respectively.[49] In Africa, Cote d'Ivoire produces much more coffee than any other country with a share of world production of about 4.8 percent. As Cote d'Ivoire is currently politically unstable with widespread unrest in the coffee producing areas and the decline in productive activities, it is unlikely that the country's productive capacity can be accurately measured.

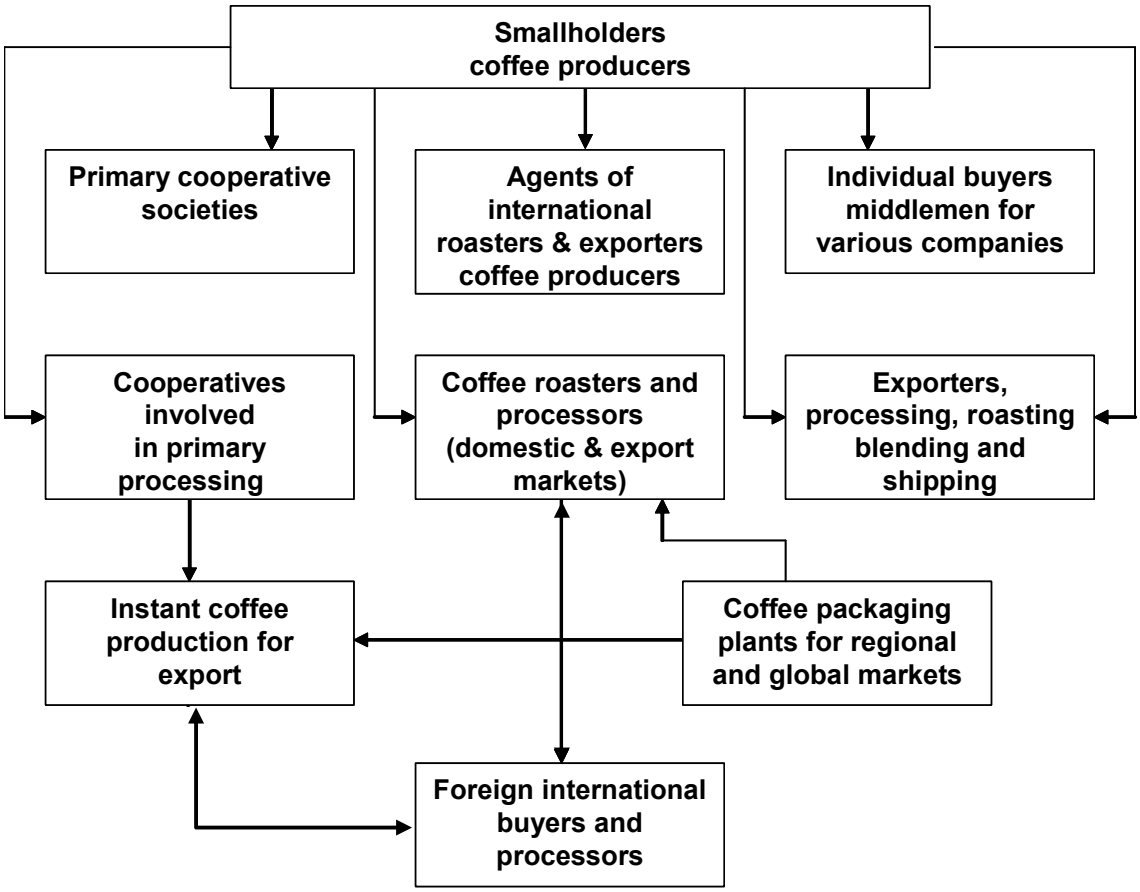
[48] Ministry of Finance, Planning and Economic Development – *Medium Term Competitiveness Strategy (MTCS) 2005 - 2009*
[49] International Coffee Organisation (ICO)

Coffee production in Uganda is affected by climatic conditions and the existence of the coffee wilt disease in some areas. Although production of coffee has declined by about 15 percent since 2001/2002, the volume of exports has increased by approximately 8 percent. Uganda produces mainly the Robusta coffee and mild Arabia coffee. The country's Robusta coffee is considered as one of the finest Robusta coffees in the world market. Uganda Robusta is expensive compared to Robusta produced in Vietnam for example. However, because of its texture, flavour and durability, it is still preferred by many international companies processing coffee.

There are about 34 companies exporting coffee in Uganda, many of which have established processing plants. Some of these companies are subsidiaries of multinational companies involved in coffee production, others are local producers financed by international companies and traders in coffee. The Government, having accorded priority to coffee production, established the Uganda Coffee Development Authority primarily to add values to coffee production, promote, as well as increase domestic consumption of coffee and marketing to external markets.

The existing processing facilities include roasting and grinding of coffee, the packaging of soluble coffee and limited instant coffee processing. A viable coffee production chain could be illustrated as follows:

Figure 5.1: Coffee Production and Marketing Chain



It is estimated that, in general, coffee producers in developing countries - small holders - get about 10 percent of the value of coffee. Operators involved in coffee roasting and processing at the domestic level get about 20 to 25 percent respectively. The main roasters, processors and exporters get between 50 and 55 percent of the value and wholesalers and retailers receive some 20-25 percent of the value. Value is added to coffee by cleaning and blending, roasting and blending, processing, extraction and packaging. It is not surprising, therefore, that the Government of Uganda, in particular, the Uganda Investment Authority has been promoting coffee processing as a viable investment opportunity. The efforts of the UIA have paid off with the proposed establishment of three large coffee processing plants, all of which should be operational in 2006/2008. These are the investment initiative between the Government of Uganda and Libya for the establishment of a soluble coffee plant in Kampala estimated at around US$ 25 million; the Mt. Elgon Coffee Ltd. which is establishing a coffee roasting plant in Toronro and thirdly the Tata Group of Companies is also constructing an instant coffee processing plant for an estimated US$ 12 million.

5.3.2 Cotton/textile/clothing

In the 1960s and 1970s Uganda produced approximately 70 - 85 tonnes of cotton with cotton accounting for about 40 percent of foreign exchange earnings. Today, Uganda produces high-grade medium staple length cotton, which, bearing in mind that most countries produce shorter staple length cotton, should enable cotton producers in Uganda to compete quite effectively in the global market. The quality of cotton produced annually is, however, quite small thus, limiting Uganda's role in cotton production worldwide. In 2003/2004, for example, the country produced about 116 tonnes of cotton. Export earnings from cotton increased to approximately US$ 41.4 million.

Cotton is a traditional crop and is one of Uganda's traditional exports. It is estimated that about 10 percent of the country's population is involved in cotton production. Its role in poverty alleviation should, therefore, not be underestimated.

The low production of cotton has influenced production of textiles in the country. However, as a result of various initiatives by the Government, the private sector and increase in demand, textiles and clothing production are well on the way to recovery and, hopefully, sustainability. The existing textiles mills in Uganda are working below installed capacity levels. The reasons are both internal and external. International textiles and clothing traders should be offered high quality goods, a wide variety of fashionable textiles to choose from. Their demand is sophisticated. However, as the existing mills have been producing textiles and clothing during the last three-decade for an unsophisticated domestic market, much more has to be done in terms of design, texture and quality if Uganda is to restore its trading position with international textiles and garment traders.

The biggest textiles producers and exporters are in Asia. China, India and Pakistan account for about 48 percent of the world production of textiles. The first two countries are the world's most populous countries. Labour costs are not as

expensive as in the developed countries where cotton and textiles are produced – the USA for example. In addition, Uganda being a landlocked country, transportation costs could be extremely high if the preferred option of transport is by air. The risks of transporting textiles by rail to the ports of the East African Community for exports are also high. However, Uganda is in a favourable position to compete fairly well with producers of textiles in China and India. In recent years, major textiles producers in China and India have established industrial operations in Uganda. They will ensure that the quality and standards of textiles meet the requirements of their international buyers. In addition, new designs will be introduced and a wider variety of textiles will be produced.

Within the framework of the African Growth Opportunities Act (AGOA), sub-Saharan African producers and exporters of textiles and apparels have an average of 17.5 percent duty advantage over non-African suppliers of textiles to the USA. Many producers in Asia would definitely take advantage of such opportunity by redeploying textiles production plants to Africa. The existing textiles production plants and clothing industries in Africa, in particular those in Uganda, should also take advantage of AGOA. They should establish inter-firm relations with incoming Asian enterprises, share knowledge and learn from the experiences of the Asian firms.

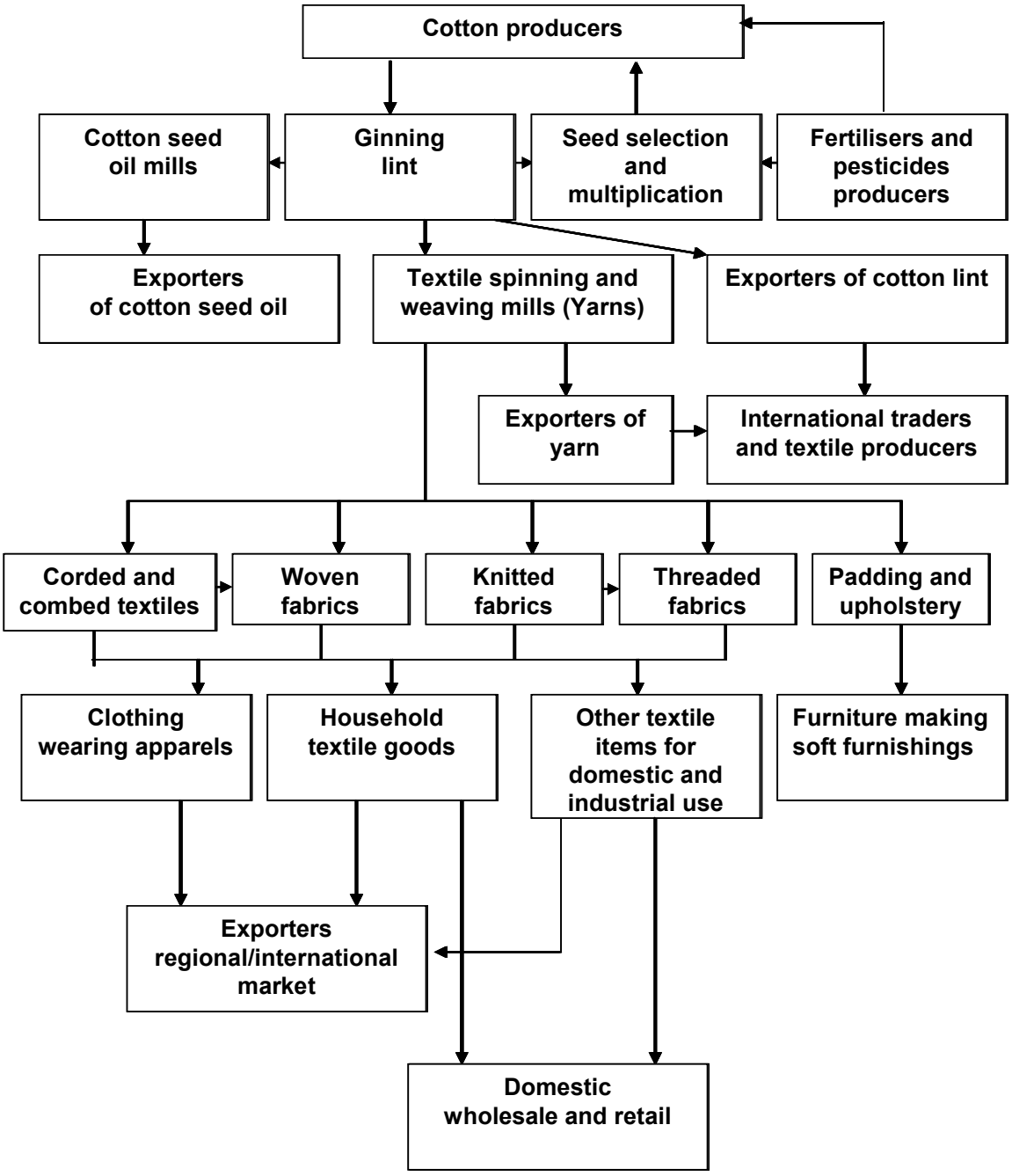
AGOA also offers duty free access for hand loomed, handcrafted and traditional articles. In Uganda, existing textiles industries, especially the newly installed Asian owned and funded enterprises should link up with small-scale textiles producers and operators producing handcrafted and hand-woven articles and put in place subcontracting arrangements with these small-scale operators, thereby, ensuring that articles bound for the USA are of good quality and standards. Both Chinese and Indian firms are very well acquainted with such types of arrangement between large and small firms. AGOA offers tremendous opportunities for African producers to be competitive not only in textiles and clothing, but also in many other non-textile products. The reality, however, is that very few countries have managed to meet the challenge. Uganda has not taken full advantage of AGOA. Many of the textiles gins are old and maintenance and repair are not carried out continuously as integral elements of the production process. New gins should be established and, where feasible, old ones should be upgraded.

In most cases, the technology employed in the textiles and clothing sub-sector is obsolete; labour is mainly unskilled or semi skilled with relatively low productivity. Absenteeism due to ill health (in some cases HIV/AIDS related) and poor work ethics are all contributing to the high unit cost of labour. The Uganda textiles producers may very well discover that labour cost in Uganda does not compare favourably with labour costs in the Asian countries.

Availability of finance is also a major constraint. Financial resources are required to replace old mills, upgrade production and process technologies and introduce computer aided design facilities. The Uganda Investment Authority has been vigorously promoting investment opportunities in textiles and clothing and facilitating the investment process with success. The inflow of capital from Uganda's competitors in Asia augurs well for the future development, competitiveness and sustainability of Uganda textiles and clothing industries.

The following chart is an illustration of possible production and marketing chain for textiles.

Figure 5.2: Textiles Production and Marketing Chain



The above illustration implies that some value is added at each step of the production and marketing chain. Cotton fiber is more valuable than seed cotton. Seed cotton is sold directly or through middlemen to the ginneries. Surprisingly, although Uganda has been involved in the production of textiles for over 40 years, none of the ginneries have established cotton plantation to ensure large-scale supply of raw cotton - the main raw material for their plants. By separating the seeds from the lint, ginneries add value to the raw cottonseed received from producers. The cottonseeds that are separated if transformed into cooking oil add more value than if they were merely thrown away as waste or sold back to the cotton producers. In like manner, producers should expect to get more value for finish clothing than for cotton lint. It is estimated that a kilo of lint actually produces about 5 or 6 square metres of fabric and a kilo of lint sells for less than 5 – 6 square meters of fabric. As one moves along the production chain, the products become more refined and sophisticated and command higher prices. However, it should also be recognised that the technology and skills required also become sophisticated and come at a cost much more than is required at the ginning or cottonseed production levels.

5.3.3 Fish

Uganda has developed an inland fish industry because of its geographical position and endowment with lakes and rivers. The fisheries sub-sector employs about 700,000 people engaged in various aspects of fish production. Another 5,000 are in fish processing. The main fisheries sources are Lake Victoria, Lakes Albert, Edward, George and Kyoga. Fifty percent of the fish catch comes from Lake Victoria. There are a number of fish varieties but, for industrial purpose, the Nile perch, tilapia and makene are the most important varieties. These varieties are exported to Europe, Asia and the Middle East.

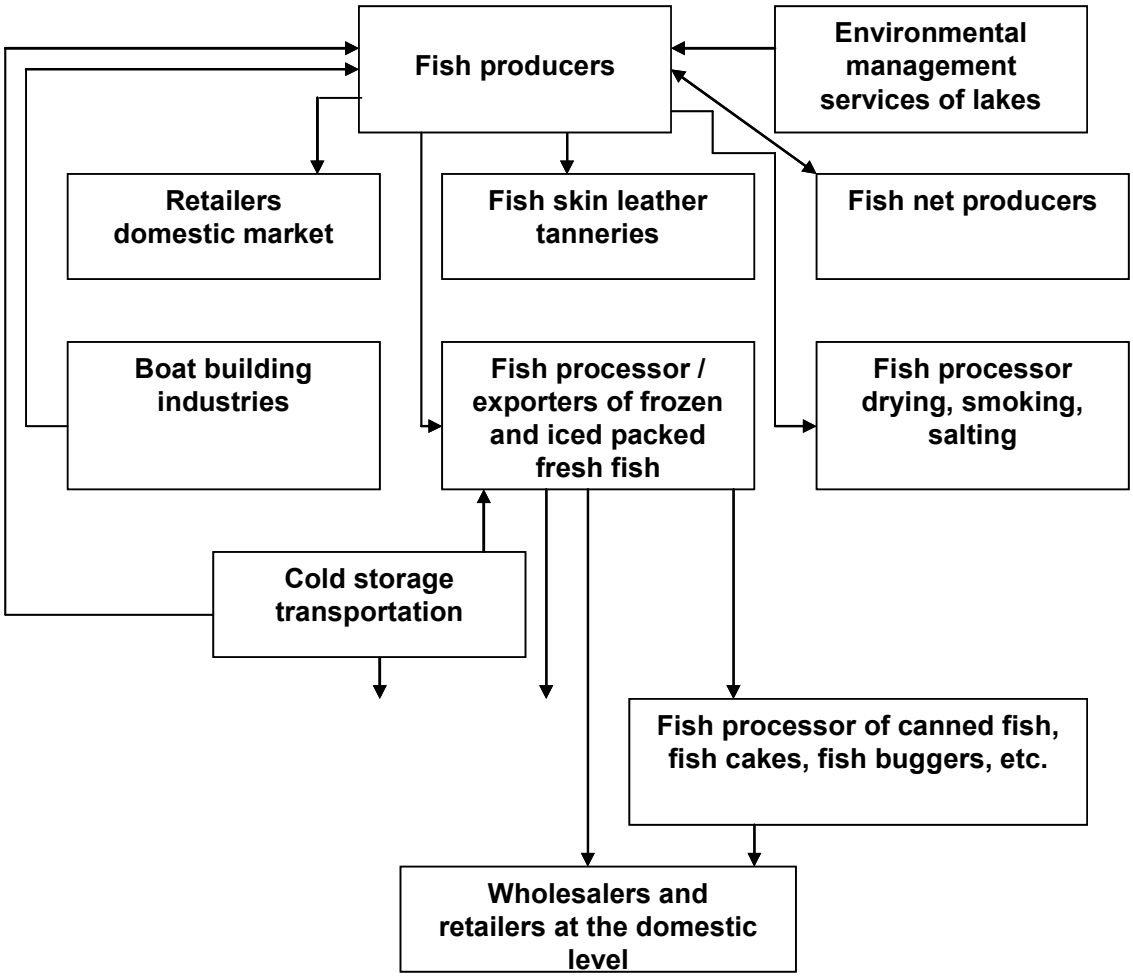
In general, fisheries are relatively artisanal fisheries with the use of traditional and modern technologies. There are small-scale fisheries enterprises, as well as medium/large scale enterprises/plants. The worldwide demand for the Nile perch is a positive factor for the continuing growth of the fish industry in Uganda and a major foreign exchange earner. Fish exports consists mainly of fillet fish, whole fish and gutted fish, all of which are preserved by freezing.. Very little transformation of the raw fish takes place for exports. However, at the domestic level, some value added products have been introduced such as fish cakes, fish balls, fish burgers, fish kebabs, etc. These are mainly found in the supermarkets and in small family businesses. The demand for such products is small but the trend of utilising such items is catching on in Kampala and other urban areas. Fish canning, which could increase value added, is not an option for the international community currently consuming Uganda's Nile perch fillet and other frozen fish.

The domestic consumers are also quite satisfied with imported canned fish. The successful sustainability of fish processing in Uganda would depend on the way fish are caught and processed. It would also depend on the existence and continuous introduction of modern cold storage facilities and cold transport facilities. Fresh cold packaging fish has more value than frozen fish. The diversification of fish production and processing should definitely be encouraged. It would, however, involved

increased training, research and development and the inflow of adequate foreign finance and technology, as well as knowledge resources relating to fish handling and processing. The quality assurance and safety of Uganda fisheries have been questioned in the past resulting in a widespread EU ban. The way in which the varieties of fish are caught, the biodiversity of the lakes and rivers, as well as method of transportation are critical issues for sustainability and competitiveness. It is reassuring to note that most of the fish processors implement a Hazard Analysis Critical Control Point System (HACCP) to guarantee product safety and quality. They also comply with international standards and have established laboratories to conduct microbiological tests and chemical analysis.

Quite apart from chilled or frozen fish, fish is smoked, dried or salted. A successful fish processing industry could stimulate boat building, encourage the development of downstream products, including, inter alia, fish oil, fish skin leather and fish meal. A fish skin tannery has been established in Uganda. The creation of such forward and backward linkages shown below would mean more value addition.

Figure 5.3: Fish Production and Market Chain



5.3.4 Leather and leather products

Uganda is endowed with about 5.7 million cattle, over 4.2 million goats and approximately 1.3 million sheep. The hides and skins of the slaughtered animals provide the raw materials for the leather industry. However, the quantity of commercially available supply of raw hides and skins would depend not only on the number of animals slaughtered, but also on preservation methods and arrangements in place to collect the hides and skins for industrial production of leather. The annual growth rate of the livestock is estimated at 3 percent. The livestock population could be sustained to provide food and for leather production.

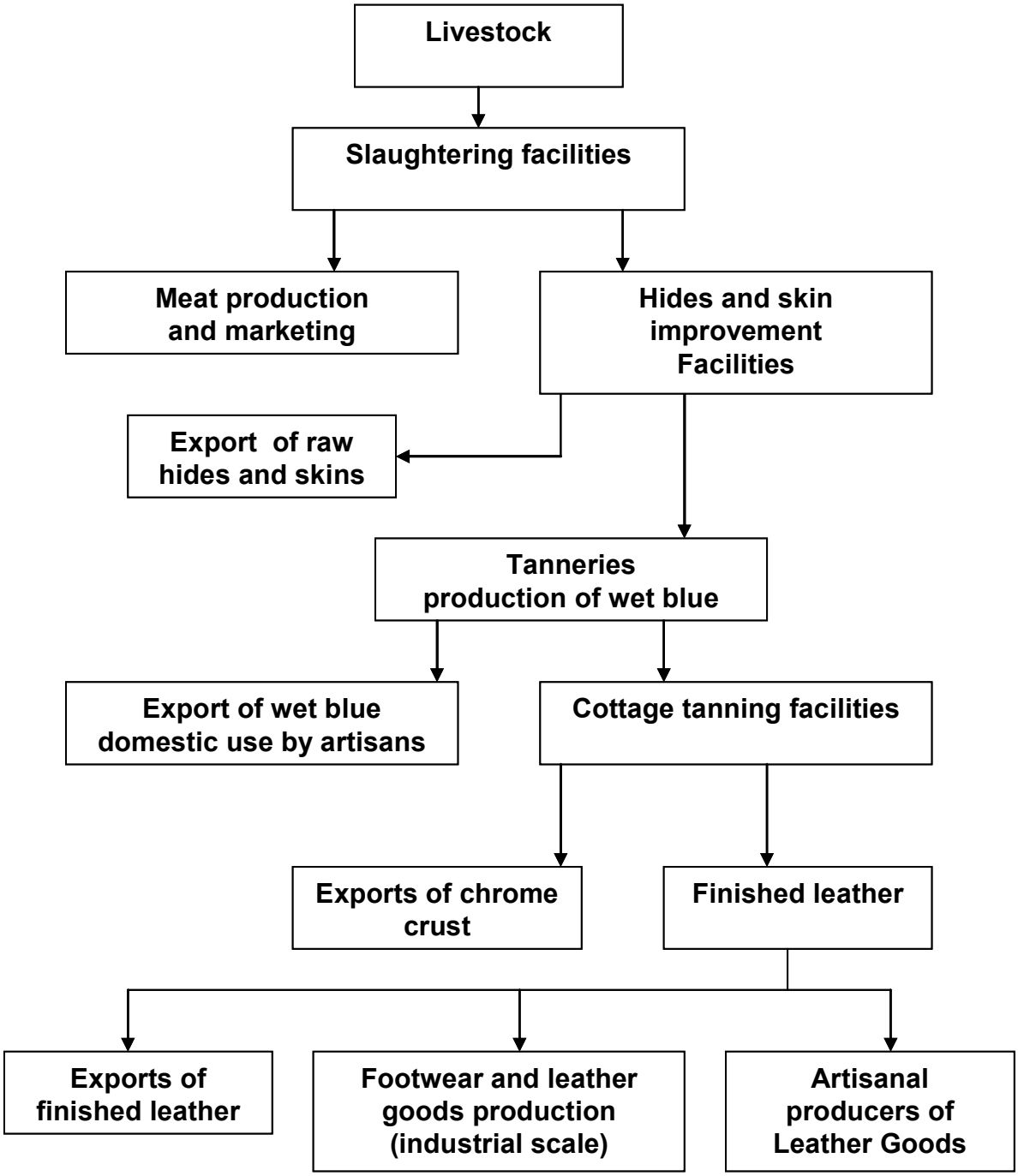
The leather being produced in Uganda is high quality and the texture of the leather is also considered to be very good. Leather is exported in its raw state and nearly 90 percent of the leather produced in the country is exported. Uganda has only one viable tannery producing hides and skins from animals. The installed manufacturing capacity is approximately 150,000 hides and 500,000 skins. There are several exporters of hides and skins, as well as leather. Many of them are very small. The largest exporter of hides and skins and leather controls some 73 percent of the export trade and market.

Leather processing is also done locally, mainly up to wet blue stage, with limited chrome crust and finished leather. Value added at the wet blue stage is actually minimal. Chrome tanning adds some 40 percent more value, finished leather some 100 percent more value to wet blue. However, net value added is at its highest in the production of footwear and other leather products.

The major footwear manufacturers in Uganda are Uganda Bata Shoe Company Ltd., The Uganda Shoe Co. and Simba Footwear Ltd. There are a number of smaller companies and artisanal footwear enterprises. Leather and footwear production for exports is highly sensitive to the quality and specification of international buyers and markets. The inability of enterprises in Uganda to supply leather and leather goods of the required quality and specification is far greater than some of its neighbours. However, with the assistance of the donor community, in particular, the Austrian Authorities and UNIDO, a Training and Common Facility Centre (TCFC) was established in 1997. Training is conducted in all aspects of footwear and leather products manufacturing. The Centre also provides advisory services, extension services, as well as undertaking bulk purchasing of materials and components for small leather, footwear and leather producers. The establishment of the Centre and new investments in flaying, handling and preservation facilities have resulted in improved quality and grading of leather. With the establishment of such facilities, some of the existing enterprises and potential ones could become competitive in leather and leather products.

The following illustration highlights elements of the leather product production and market chain.

Figure 5.4: Leather and Leather Product Production and Market Chain



5.4 Metallurgical industries

Metallurgical industries are basically mineral processing industries. They are highly capital and technology intensive. The development of metallurgical industries is essential for sustainable industrial development and competitiveness. The manufacturing of most consumer goods, equipment and machinery requires the simultaneous growth of the iron and steel and other metallurgical industries, such as copper and aluminium industries. The consumption of iron and steel products in a country is believed to be an indicator of the level and pattern of development. Iron and steel is a *sine qua non* for industrialisation as the sub-sector provides effective linkages with other industrial sub-sectors, as well as other sectors.

The metallurgical industrial sub-sector in Uganda is not well developed. It comprises of steel rolling mills, metal and metal working industries such as galvanising plants producing roofing and fencing materials, foundries, forging and machine shops and the manufacture of domestic appliances, spare parts, equipment and tools.

The metallurgical industrial sub-sector is faced with a number of problems including inadequate raw materials and inaccessibility to raw materials located in the interior of the country. The exploitation and processing of such raw materials would involve tremendous capital and technological resources relating to production processes, specialised management and continuous research and development activities for continuous improvement and quality management.

The sustainability of metallurgical industries also depends on the technology selected and the availability of foundries, forging, heat treatment and machine shop facilities. The main users of iron and steel in Uganda are the agricultural machinery production units, the machinery industries, especially those producing spare parts, electrical power control units and the building of body parts for motor vehicle and trailers.

Although Uganda industries are not currently in a position to compete in metals and metal products, they could compete at the regional level and, to a certain extent ,the global level, once the problems and constraints have been properly addressed.

5.5 Engineering industries

The engineering industries provide an integrated and interlinked development in industry as they provide basic equipment, tools, intermediate and capital goods to be used in other sectors. Engineering industries are closely linked to the metallurgical industries and, in Uganda, the engineering industries include industries producing transport equipment, agricultural equipment, machinery used in the textiles industries in the metal working industries and in the electric and electrical equipment industries. The types of technology selected for most of the industries are highly dependent on the importation of certain inputs, as the raw materials expected from the metallurgical industries are not always available. As a result, engineering industries in Uganda tend to produce well below installed manufacturing capacity.

It is widely recognised that as Uganda deepens and widens its industrial base, the demand for engineering products will increase. This in turn will encourage the development of engineering industries in the country, some of which could be competitive within a period of 5-10 years.

5.6 Chemical industries

The products of the chemical industries are generally directed towards the production of basic needs, such as food and health products and some household and building materials. For example, the production of fertilisers and pesticides would normally stimulate agricultural output. In Uganda, large quantities of fertilisers and pesticides are being imported. The domestic production of some fertilisers and pesticides could contribute immensely in conserving foreign exchange.

The technology used in the chemical industries varies and the size of plants and machinery, as well as the cost of such plants and machinery would depend on the technology selected. Since 1998, production in the chemical industrial sub-sector in Uganda has been increasing. However, for the industries to be competitive, existing enterprises should introduce changes in the production process to correspond with international technological development. Other constraints to be addressed include the inadequacy of essential raw materials, the size of the domestic market and inaccessibility to markets in Europe, Asia and elsewhere in Africa for example.

5.7 Non-metallic industries

The development of non-metallic industries, in particular, the building material industries is a powerful catalyst for economic and social development. In addition, the expansion of other industrial sub-sectors has resulted in increased demand for non-metallic minerals. In many countries, Uganda included, the existence of cement and ceramic production facilities has made it possible for such countries to initiate nationwide building schemes including housing. In recent years, the constructions of other infrastructural facilities have been made possible because of the continuous growth in the non-metallic industries.

The main non-metallic industries are also capital intensive and the ability of industries to compete would depend on the technological process selected and the quality of the products. The chances are that Uganda can be competitive in a few non-metallic mineral products.

5.8 Investment opportunities

The Uganda Investment Authority, in cooperation with the Bank of Uganda and the Uganda Bureau of Statistics, periodically conducts investment surveys at the manufacturing and sub-sectoral levels. It also prepares an outline of investment

opportunities in Uganda. Under this section, however, the focus will be on investments and planned activities of the manufacturing enterprises that participated in the enterprise/competitiveness survey, as the expansion of the existing production capacities is the most promising investment opportunities.

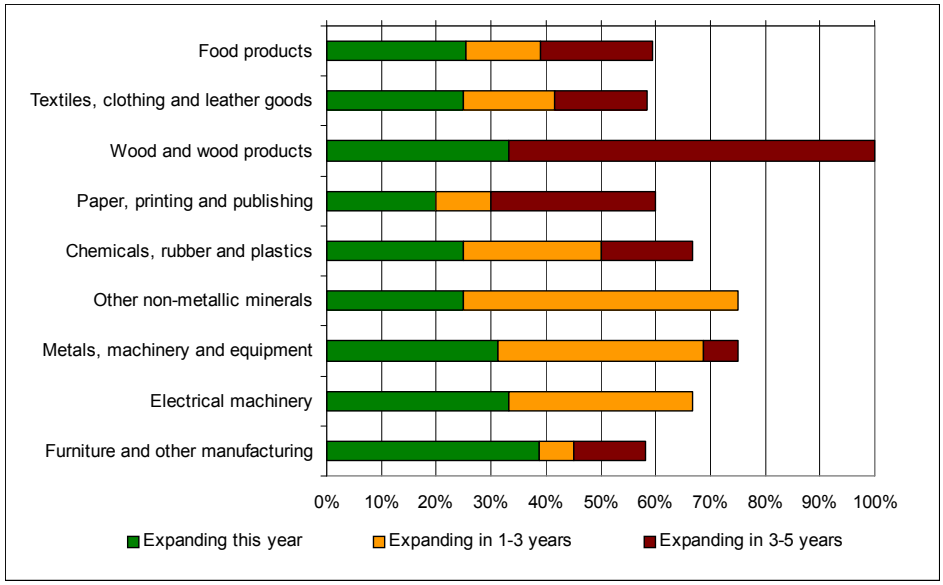
The macro-economic situation in Uganda is stable. Major initiatives have been introduced to improve the policy environment and the enabling environment to attract both domestic and foreign investments. The Uganda Investment Authority (UIA) is at the apex of investment promotion for upstream and downstream industrial processing activities in all the industrial sub-sectors. The UIA is also involved in investment completion activities by facilitating the process of the actual transfer of capital and technology for the establishment of industries. As a result of its efforts, the growth of fixed investment in Uganda has increased quite significantly to about 19 percent in recent years. Domestic investments play a significant role in transforming the economy, accounting for approximately 50.8 percent of total investment in 2001/2002 for example. Foreign investment is critical for industrial development and continues to play a major role in the industrialisation process of Uganda. In recent years capital investment is mainly in the form of long-term equity financing. Investment in plant and machinery accounts for about 37 percent of total investments. Total investment, as a percentage of the gross domestic product, grew from 15.4 percent to 17.6 percent between 2000/2001 and 2003/2004.

In 2005, the enterprises selected to participate in the competitiveness survey were asked to indicate potentials for upstream or downstream processing, as well as expansion plans within the next 5 years. The survey reveals that 25 percent of enterprises in the food processing industrial sub-sector plan to expand existing capacities within twelve months; another 10 percent would expand production capacity within 1-3 years. Twenty percent of food-processing industries indicate that expansion of capacities could be between 3-5 years. These figures are encouraging as they represent renewed interest in the food processing industrial sub-sector.

In the remaining industrial sub-sectors covered in the survey, enterprises are determined to expand their production capacities to meet the increasing demand for their products at the national level and for exports to neighbouring countries and other destinations of the global market as appropriate. In the wood and wood products sub-sector, 33 percent of enterprises plan to expand in one year and approximately 66 percent of enterprises have plans to expand capacities with the introduction of new technologies to improve the quality of products. The increasing demand trends in the electrical machinery industry and in furniture and other manufacturing are also a significant factor for 35 percent and 34 percent of enterprises respectively to expand production with the introduction of new production processes within a year. Another 30 percent of enterprises in the electrical machinery sub-sector consider investing in new production lines or expanding production within 1 – 3 years. In the non-metallic minerals industry, 25 percent would invest in expansion activities within a year and for 50 percent of the enterprises, 1-3 years is the preferred option for expansion. Similar indications are given by the chemicals, rubber and plastics industries, although for 25 percent of the enterprises, planned capacity expansions will be effective in 1-3 years. Another 17 percent of enterprises in this sub-sector would improve capacities and production processes within 3-5 years.

The following graph illustrates the reality of planned capacity expansion by industrial enterprises in the various sub-sectors that participated in the competitiveness analysis.

Figure 5.6: Planned Capacity Expansion



The factors inhibiting expansion are also indicated in the survey. Forty-one enterprises indicate that, because of insufficient demand for some products, expansion possibilities could be seriously frustrated. However, 40 enterprises do not consider insufficient demand as an important factor, meaning the demand for their products is well entrenched.

The cost of capital is a major obstacle for about 6 enterprises, especially in industries that are capital and technology intensive. Electrical energy, its availability and cost are considered crucial for expansion of productive capacities and for new investments. Approximately 80 of the 144 enterprises consider access to electrical energy as a major inhibiting factor.

The factors inhibiting expansion are summarised below.

Figure 5.7: Factors Inhibiting Expansion

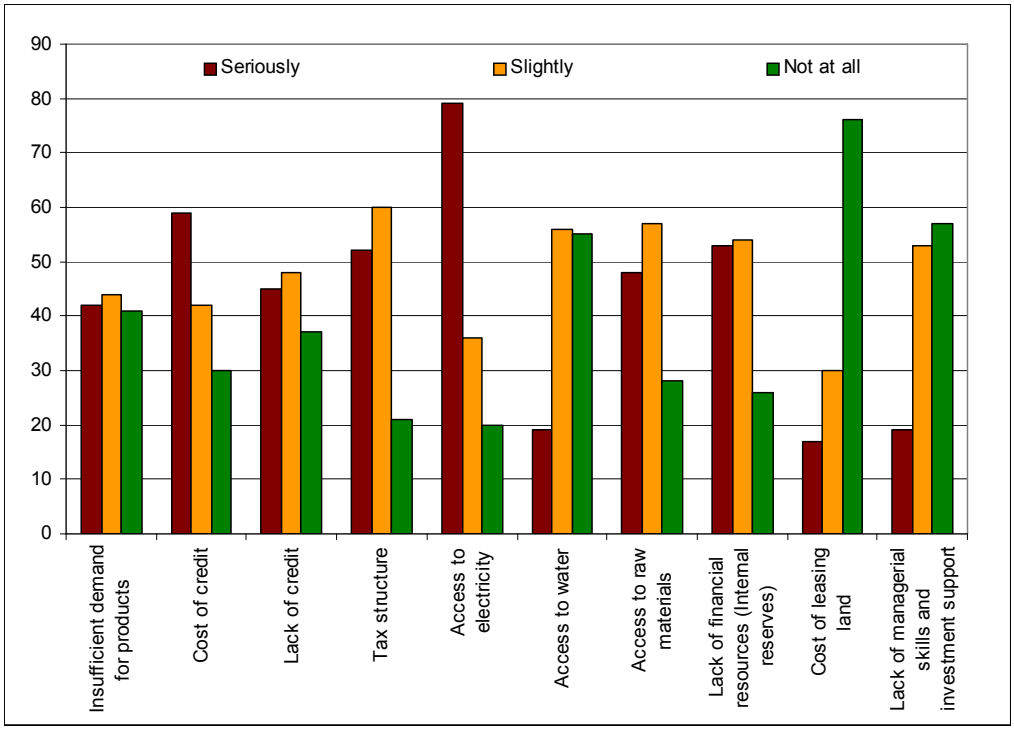


Table 5.1 below is an illustration of investment potentials in the various sub-sectors and regions. Investment opportunities in the various regions and districts are closely linked to the existing industrial activities in these areas. However, some industries are interested in green field ventures. Kampala is the favourite location for new industrial activities even for industries whose sources of raw materials are in the interior parts of the country. It is encouraging to note that industrial activities are spread throughout the country. The Government has launched major initiatives to improve infrastructure, in particular, road and telecommunications networks, as well as the upgrading and extension of electrical energy throughout the country. Such initiatives would further strengthen efforts to ensure the regional distribution of industries, thereby, successfully integrating the rural communities into the modern economy and non-farm productive sectors.

Table 5.1 Investment Opportunities

Sub-sector	Entebbe	Hoima	Jinja	Kampala	Kasese	Lira	Masindi	Wakiso
Food, beverages and tobacco	• Animal feeds	• Tobacco products • Oil milling	• Sweets and confectiona-ry	• Tea blending and packaging • Animal feeds • Malt and barley processing • Wheat processing • Sugar processing • Fruit juice • Maize mill • Meat processing • Coffee processing • Fish processing • Palm oil production	• Wheat milling • Animal feeds	• Animal feeds • Beverages • Breweries	• Meat processing and packing • Animal feeds • Tobacco products • Tea processing • Fruit processing	• Animal feeds • Soya products • Coffee processing
Textiles, clothing and leather goods		• Textile industry • Cotton cleaning (sorting)		• Ginnery • Yarn • Tannery • Shoes		• Spinning mill	• Cotton ginning	
Wood and wood products				• Various wooden products • Plywood and board				
Paper, printing and publishing	• Paper packaging		• Packaging material	• Packaging • Paper			• Paper production	• Paper recycling
Chemicals, rubber and plastics	• Fertilisers • Detergent manufacture • Polystyrene • Polythene bags	• Soap	• Fuel Ethanol manufacture from Molasses • Styrofoam boxes • Plastic crates • Calcium chloride	• Fertilizer • Plastic containers • Varnish Cosmetics • Detergents • Pharmaceu-ticals • Pesticides • PVC pipes • Adhesives	• Polythylene bags • Varnish	• Plastic containers • Plastic pipes	• Ethanol • Industrial spirits • Fertiliser • Soap factory	
Other non-metallic minerals		• Ceramic tiles	• Cement • Bricks • Glass recycling	• Glass Concrete products				
Metals, machinery and equipment			• Fabrication of steel • Steel rolling • Mechanical fabricators • Repairing units for heavy agricultural equipment • Foundry	• Steel works • Aluminium powder coating • Aluminium and steel sections and profiles • Metals services			• Tractor assembly • Foundry workshops • Steel rolling	
Other industry			•	•			•	

5.8.1 Favourable conditions for investments

The favourable conditions for investments are linked to successfully addressing the major problems and constraints to investments and industrialisation in general. To attract foreign investments and mobilise domestic investments for industry, certain key elements are considered highly desirable. The following are some of the elements mentioned by potential investors and existing industrial operators with plans for expansion.

- Political stability, good governance and economic management
- Openness of the economy to international finance and trade
- Transparent and effective monetary and fiscal policy and the will of the Government to pursue fiscal discipline
- A strong banking system and vibrant financial market
- Availability of skilled human resources, including professionals in the required disciplines for industrialisation especially managers and engineers with industrial design capabilities
- Adequate and efficient infrastructural facilities including information communication and knowledge resource facilities.

6. CONCLUDING REMARKS

An attempt has been made to construct the competitiveness platform of Uganda in the preceding five chapters of this competitiveness analysis based primarily on Michael Porter's theory on "*The Competitive Advantage of Nations*" and variations of the drivers of competitiveness as defined by other economists including Michael Enright (Chapter 2 and Chapter 4 above). Some of the attributes of the *Porter's Diamond* and the drivers of competitiveness are not present in Uganda because of the level of development and the structure of the economy. Nevertheless, they remain valid and relevant for competitiveness

The competitiveness of nations depends on the business environment, the extent to which resources, infrastructure, science and technology, knowledge resources, etc. are developed and utilised to produce goods and services that could compete globally in terms of quality, standards and prices.. Therefore, while it is acknowledged that companies compete and not countries, the very complexity of competition requires the full support of both the Government and the private sector.

In Uganda, the role of the Government and the private sector (firms in particular) should be clearly understood and appreciated. The Government should ensure stable and competitive environment for the private sector and industrial enterprises to develop, through investments, innovations, the acquisitions of technologies and the production of quality goods and services for the domestic and export markets.

A stable and competitive business environment depends on the political structure and institutional environment. The Government of Uganda has overcome the stigma of bad economic management. Major initiatives have been introduced and being implemented to ensure and sustain macro-economic stability. The industrial enterprises involved in the competitiveness survey and industrial leaders in the country acknowledge that the quality of government administration has improved quite significantly from what it was in the 1980s and 1990s. The management of public finances has also improved and overall governance and economic management are relatively good, although these are processes for which there is always room for continuous improvement.

Government regulation of the economy is not as cumbersome as in the 1990s. The tax structure is still not quite favourable to business, but the Government is transparent about its policies, objectives and goals.

Quite apart from the business environment, it is government's responsibility to develop the country's human resources through the provision of functional education, health, transport and communications and other infrastructure, which are relevant for competitiveness. The Government should finance and support research and development in research institutions and in the universities. An educated and well-informed population is also a population with sophisticated demand for goods and services. Sophisticated consumers can stimulate innovation in industrial enterprises, the diversification of industrial production and improvement in product and process technologies.

The private sector and industrial enterprises also have an intrinsic role in governance and economic management. Governance is the collective responsibility of Government and businesses. How the private sector manages resources, including human resources to produce goods and services is a statutory aspect of governance. To what extent is the private sector and industrial enterprise accountable and transparent? How well do industrial enterprises represent the interest of the consumers and adhere to government policies on quality, standards and the environment? These are issues that can also improve governance, as well as competitiveness.

The results of the competitiveness survey confirm that innovation is very rare among industrial enterprises in Uganda. Very few firms introduce new production process and products in a ten-year period. The existing enterprises are more concerned with routine production for a population whose demand for domestic products is not quite sophisticated. They recognise that innovation is important for their business but are unwilling or unable to channel resources into research and development and innovation. Employees with specialised skills and basic skills and knowledge are bogged down with routine administrative and production tasks in both government and business. The Government and the private sector should, therefore, work closely to address issues of competitiveness.

The increasing trend of globalisation creates challenges for Government and business. Public private consultations and partnerships are the most effective means to address these challenges. It should be understood, however, that only the private sector could guarantee prosperity of the Ugandan economy and create employment. The Government should, therefore, support the private sector by defining realistic policies for industrial development and competitiveness. Such policies should be defined in an interactive process, involving the private sector and academia. In Part II and Part III of this Integrated Industrial Policy for Sustainable Industrial Development and Competitiveness, an integral industrial policy and a policy for micro and small industrial development have been defined with the full involvement of the private sector and academia throughout the policy development process.

Annex A

Questionnaire for Competitiveness survey

Within the framework of the UNIDO executed Integrated Industrial Programme for Uganda, the Ministry of Tourism, Trade and Industry has commissioned the United Nations Industrial Development Organization to undertake a comprehensive enterprise survey/competitiveness analysis with a view to defining an integrated industrial policy for sustainable industrial development and competitiveness. The enterprise survey will be conducted by the Economic Policy Research Centre (EPRC). Information provided will be used only for statistical and economic analyses and will be treated as strictly confidential.

A – Questionnaire for competitiveness survey

Section 1 – General Information

1) Name of enterprise/company: Optional
2) Sector (ISIC*):
3) Location: - city/region:
4) Date of establishment
5) Legal status of enterprise :
6) Total number of employees :
7) Most important products :
8) Current optimal capacity :
9)

	2001	2002	2003
10) Sales			
11) Total assets			

***ISIC Code List**

1 Agriculture
2 Mining and quarrying
30 Manufacturing of food products
31 Manufacturing of textiles, clothing and leather goods
32 Manufacturing of wood and products of wood, cork and straw (excluding furniture)
33 Manufacture of coke, refined petroleum products, and nuclear fuel, chemicals and chemical products, plastics rubber and articles thereof
34 Manufacture of other non-metallic mineral products
35 Manufacture of basic metals, fabricated metal products, machinery and equipment
36 Manufacture of electrical machinery
37 Manufacture of radio, television and communication apparatus
38 Manufacture of transport equipment
39 Manufacturing of furniture and other manufacturing not elsewhere classified

Section 2 – Management or Entrepreneur Questionnaire

1) Legal status of enterprise

Sole proprietorship	**Partnership** (indicate number of shareholders)	**Limited liability enterprises** (indicate number of owners/stakeholders)

2) Ownership structure

Privately owned	**State and private** (indicate percentage private ownership)	**State**

3) Percentage of foreign ownership: %

4) Highest level of education of entrepreneurs/chief executive/manager

Primary	**Secondary**	**Vocational / Technical**	**Professional**	**University**

5) Number of years of experience in the industry/enterprise:

6) Total number of employees

At date of factory establishment	**1994 to 1998**	**1998 to 2003**

7) Initial start up capital: UG Schilling

8) Sources of capital (indicate % of total)

Own savings	**Funds from relatives**	**Bank loan** (local or international)	**Loan from a money lender**	**Others** (please specify)

Section 3 General Firm Questionnaire

1) What are the most important products of the Enterprise (list in order of importance)

Product Description	**Unit**	**How Many Sold**			**Quantity Exported**			**Total Revenue** (UGX)			**Value of Exports** (UGX)			**Total Cost of Raw Materials**		
		2001	**2002**	**2003**	**2001**	**2002**	**2003**	**2001**	**2002**	**2003**	**2001**	**2002**	**2003**	**2001**	**2002**	**2003**

2) Basic raw materials purchased

Description	**Sources**					**Quantity Purchased**			**Total Value of Imported Raw Materials**		
	Local (%)	**Africa** (%)	**Europe** (%)	**Asia** (%)	**America** (%)	**2001**	**2002**	**2003**	**2001**	**2002**	**2003**

3) Percentage of your materials produced by other enterprises operating in the domestic market

2001	**2002**	**2003**

4) What is the cost to your enterprise/firm for the following

Description	**2001**	**2002**	**2003**
Raw materials			
Rent			
Electricity			
Other energy (fuel, gas etc.)			
Transport			
Telephone and IT services			
Promotion, advertising and marketing			
Maintenance and repairs of plant & equipment			
Other industry related services including R&D			
Salaries and wages			
Training			

5) Type and level of taxation to enterprise (UGX)

Description	**2001**	**2002**	**2003**
Income tax			
Import duties			
Sales tax			
Excise tax			
Other direct taxes			
Other indirect taxes			

6) What is the total value of imports for

2001	**2002**	**2003**

7) What is the total value of exports for

2001	**2002**	**2003**

8) Please specify export destination & percentages

Country	**%**	**Country**	**%**

Section 4 Investments

1) What is the rate of capacity utilization for

Capacity	2001	2002	2003
Attainable			
Installed			

2) What are the reasons for decline in capacity utilization?

Lower demand		Lack of raw materials	
Skilled labour shortage		Semi/unskilled labour shortage	
Other			

3) In the last five years, did you replace plant machinery and equipment? If so, specify.

_____
_____
_____

4) What is the age and estimated cost in replacing plant, machinery or equipment?

_____
_____
_____

5) What is the value of inventories of finished goods for

2001	2002	2003

6) What is the value of your inventories work in progress for

2001	2002	2003

7) What is the value of inventories of raw materials excluding fuel in

2001	2002	2003

8) Total amount invested in land, building plant, equipment, R&D and innovation in

	2001	2002	2003
Land			
Plant construction			
Equipment			
R&D			
Innovation			

9) What percentage of investment resources came from personal savings, friends and relatives, bank loan or overdraft, sale of equity, new partnership, others (specify) for

	2001	2002	2003
Personal savings			
Friends and relatives			
Bank loan / overdraft			
Sale of equity			
New partnership			
Other			

10) Give reason(s) for investments in machinery and equipment

to add to capacity		to replace old equipment	
Productivity improvement		quality improvement of output	
Introducing new production line and new output			

11) Do you allocate resources for R & D for product innovation and improved production process? Specify type of innovations.

_____
_____
_____

Section 5 – Workers and Labour Relations

It is expected that at least one worker will be interviewed from the following categories; professionals, technicians, production workers, sales personnel, office workers, others.

1) Name and category of worker

_____

2) Origin of worker (Nationality, African, Foreigner)

_____

3) Highest level of education

Primary	**Secondary**	**Technical**	**University**

4) Areas of specialty

_____

5) What was your main area of operation before present employment?

Civil servant/public sector employee		Private sector employee	
Self-employed		Apprenticeship	
Family owned business		Student	
Unemployed			

6) What is your total current salary/wages including advantages before and after taxes? (per year)

Before tax	**After tax**

7) Are you currently receiving on-the-job training – how long?

_____

8) Did you receive any on-the-job training in the past 5-10 years.?

Yes	**No**

9) Have you attended training courses organized by Institutions in your country or abroad?

Yes	**No**

10) How familiar are you with the use of computers?

11) Do you work in shifts?

Yes	**No**

12) What is the length of each shift? _____ hours

13) What is the total working hour a day? _____ hours

14) Please indicate number of work days lost in 2002 and 2003 as a result of the following:

Strikes	**Absenteeism**	**Ill health**	**Other reasons**

15) What is the most serious labour relation problem?

_____

Section 6 - Competitiveness Factors

Quality of Competitive Drivers
1 - Very poor
2 - Poor
3 - Fair
4 – Good
5 – Very good

Impact on Business
1 – Very Negative
2 – Negative
3 – Neutral
4 – Positive
5 – Very Positive

Rate the factors below according to their impact on your competitiveness	Quality	Impact
FACTOR CONDITIONS		
Human Resources		
Availability of unskilled labour		
Availability of artisans		
Availability of technically skilled labour		
Availability of managerial staff		
Wage rates		
Unit labour cost / output per worker		
Vocational / industry related training facility		
Work ethic of labour force		
Other Resources		
Availability of suitable land		
Water supply (availability and reliability)		
Semi-processed materials		
Raw materials		
Research facilities , resources and support services		
Trade and business association support		
Market and product information		
Availability of capital		
Cost of capital		
Project development and financing support		
Access to finance		
Telecommunication services		
Electricity cost & reliability		
Road and rail network		
Air transport network		
Sea transport network and access to harbour facilities		
Recreational facilities		
Social Infrastructure (Medical facilities, schools, etc)		
DEMAND CONDITIONS		
Size of the domestic market		
Export opportunities (Africa and Middle East)		
Export opportunities (Other)		
Structure of domestic demand (consumer sophistication etc.)		

Quality of Competitive Drivers
1 - Very poor
2 - Poor
3 - Fair
4 – Good
5 – Very good

Impact on Business
1 – Very Negative
2 – Negative
3 – Neutral
4 – Positive
5 – Very Positive

Rate the factors below according to their impact on your competitiveness	Quality	Impact
Levels of market differentiation and saturation		
Government demand		
Population growth		
HIV/Aids		
RELATED & SUPPORTING INDUSTRIES		
Trade and business association support		
Transport logistics		
Cold storage and transport facilities		
Corporate financial services		
Professional services		
Availability of domestic suppliers		
Dependence on imports		
Linkages to technology		
Access to information		
Exchange of research		
Joint problem solving		
Market and product information		
After sales service		
Sub-contractors		
Value chain co-operation (share critical activities)		
FIRM STRATEGY, STRUCTURE & RIVALRY		
Co-operation and contact with suppliers		
Co-operation and contact with clients		
Co-operation and contact with competitors		
Co-operation and contact with government		
Employee performance incentives		
QUALITY & ENVIRONMENT		
Quality of material inputs		
Quality of final product for domestic consumption		
Quality of final product for export		
Cost of compliance to standards		
Pollutants in the production environment		
Cost of compliance to environmental legislation		
Environmental protection legislation / guidelines		

Section 7 –Economic Activity and Expectations

Compared to the same quarter of a year ago are:		Estimated activity in current quarter			Expected activity in next quarter		
		Up (1)	Same (2)	Down (3)	Up (1)	Same (2)	Down (3)
1a	Domestic Sales (Volume)						
1b	Export Sales (Volume)						
2	Production (Volume)						
3a	Domestic orders received (volume)						
3b	Export orders received (volume)						
4	Unfilled orders relative to total assets						
5	General business conditions						
6	Number of factory workers						
7	Average hours worked per factory worker						
8	Fixed Investment						
The rate of increase in the…							
9a	Average total cost per unit of production						
9b	Average labour cost per unit of production						
9c	Average purchase price per unit of raw material						
9d	Average domestic sale price per unit of production						
9e	Average export sale price per unit of production						
9f	Taxes paid as % of sales						
Compared to the same quarter of a year ago are current stock of		Too high (1)	Sufficient (2)	Too low (3)	Too high (1)	Sufficient (2)	Too low (3)
10a	Raw materials relative to planned production						
10b	Finished goods relative to expected total demand						
11	Delivery period of orders	Longer (1)	Same (2)	Shorter (3)	Longer (1)	Same (2)	Shorter (3)
12	Is your current level of output below capacity	Yes		No	Yes		No
13	How do you rate business conditions	Satisfactory		Unsatisfactory	Satisfactory		Unsatisfactory

To what extent do the following hamper your activities		Seriously (1)	Slightly (2)	Not at all (3)	Compared to the previous quarter have these factors: Deterio-rated (1)	Remain the same (2)	Improved (3)
14a	Shortages of						
	Skilled labour						
	Semi-skilled labour						
	Unskilled labour						
	Managerial staff						
	Raw materials						
	Water						
	Electricity						
	Other Utilities						
	Machinery and Equipment						
	Maintenance and support services						
	Packaging and marketing material						
14b	The level of short-term interest rates						
14c	Insufficient demand for your products						
14d	Interface with IRS & interpretation of tax law						
14e	Municipal levies, taxes and permit costs						
14f	Import duties						
14g	Import dumping on domestic market						
14h	Bribery and corruption						
14i	Availability of medium term finance						
14j	Land leasing						
14k	Interface with government						

Compared to the current activity, what do you expect the following to be in **12 month's time.**		Higher (1)	Same (2)	Lower (3)
15a	Volume of goods imported			
15b	Volume of goods exported			
15c	Investment in Machinery and Equipment			
15d	Investment in land and buildings			
15e	General business conditions			
16	What are the prospects over the next 12 months of investment in new capacity			

What factors are likely to limit your ability to invest over the next 12 months?		Seriously (1)	Slightly (2)	Not at all (3)
18a	Insufficient demand for products			
18b	Cost of credit			
18c	Lack of credit			
18d	Tax structure			
18e	Access to electricity and water			
18f	Access to raw materials			
18g	Lack of financial resources (Internal reserves)			
18h	Cost of leasing land			
18l	Lack of managerial skills and investment support			

Section 8 - Manufacturing Development Potential

Expansion
What are the possibilities for your manufacturing expansion and indicate the location of such planned expansion (tick the appropriate box).

Expanding this year	Expanding in 1-3 years	Expanding in 3–5 years	Unsure of expansion opportunities	No expansion opportunities
Location				
Current Site	New Site in same area	Other area:_____		

Beneficiation of Product Output
What type of manufacturing activities could be established in the vicinity of your existing plant in terms of the further processing (beneficiation) of your products by yourself or any other manufacturing concern.

_____
_____
_____
_____
_____

Backward linkages with existing establishments
What type of manufacturing activities could be established in the vicinity of your existing plant in terms of other concerns supplying you with raw and semi-processed materials, packaging materials, service industries, etc.

_____
_____
_____
_____
_____

Other manufacturing opportunities
Besides the above (ie. expansion and forward and backward linkages) what other types of industry, in your opinion, would do well in your industrial area/province (eg. Wood and wood products, tobacco products, textiles, etc).

_____
_____
_____
_____
_____

Annex B

Questionnaire for Industrial Human Resource Survey

Industrial Human Resources Survey

EMPLOYEES CHARACTERISTICS AND LEVEL OF EDUCATION:

1. What is the total number of employees?

☐ ☐ ☐

Male Female Total

2. How many new employees did you employ?

	Male	Female	Total
2.1 in 2001			
2.1 in 2002			
2.1 in 2003			

3. Education and training level of all employees (as of 2003)

Grade		Male	Female	Total
1	3.1 No education			
2	3.2 Completed primary			
3	3.3 Completed junior secondary school			
4	3.4 Completed senior secondary school			
5	3.5 Graduate – technical/vocational school			
6	3.6 Graduate – Technical institute			
7	3.7 University graduate in engineering, technology, science			
8	3.8 Other University graduates			

4. How many engineers/scientists/technicians and skilled workers are employed in your enterprise?

☐ ☐ ☐

Male Female Total

5. Average monthly salary of employees in 2003:
   - 5.1 Of engineers/scientists _____ (In Ush)
   - 5.2 Of technicians _____ (In Ush)
   - 5.3 Of skilled workers _____ (In Ush)
   - 5.4 Of unskilled workers _____ (In Ush)

6. In 2003, how many workers did you hire?

Grade		Male	Female	Total
1	3.1 No education			
2	3.2 Completed primary			
3	3.3 Completed junior secondary school			
4	3.4 Completed senior secondary school			
5	3.5 Graduate – technical/vocational school			
6	3.6 Graduate – Technical institute			
7	3.7 University graduate in engineering, technology, science			
8	3.8 Other University graduates			

6.1 For which jobs did you hire them?

Grade	Specify Job	Male	Female	Total
1				
2				
3				
4				
5				
6				
7				
8				

7. If your enterprise has employed technical institutes or technical schools' graduates, what was the initial monthly salary you offered for:
   7.1(a) Technical institute (named): _____(Ush)
   7.1(b) Technical/Vocational school (named): _____(Ush)
   7.2 For which jobs did you hire them?

Grade	Specify Job	Male	Female	Total
1				
2				
3				
4				
5				
6				
7				
8				
9				

8. In 2003, did you experience skill shortages? →
   1 = yes 2 = no ☐

9. If the answer to Q.8 above is yes, in what specialties?
   _____
   _____

10. **Minimum time required for a new recruit to become a productive worker**

10(a) What is the minimum time required for a new recruit from a **technical institute** before ☐

becoming a productive worker for the enterprise? (months)

10(b) What is the minimum time required for a new recruit from a **university** before becoming a productive worker for the enterprise? (months) ☐

10(c) What is the minimum time required for a new recruit from a **technical school** before becoming a productive worker for the enterprise? ☐
(months)

11. What is the minimum time required for someone without pre-employment **technical training** but with a good general education (Mathematics, English and other subjects at 'O' level) to become a productive worker? (months) ☐

12. How do you assess the skills/abilities of **university** graduates in the following Areas (circle where appropriate)

	Very good	*Good*	*Satisfactory*	*Un-satisfactory*
12.1 Technical abilities	1	2	3	4
12.2 Knowledge in non-technical fields	1	2	3	4
12.3 Knowledge in English	1	2	3	4
12.4 Willingness to learn	1	2	3	4
12.5 Capacity to adapt to the work environment	1	2	3	4
12.6 Ability to solve problems	1	2	3	4
12.7 Commitment to the job and to the enterprise	1	2	3	4

13. How do you assess the skills/abilities of **technical institutes** graduates in the following areas (circle where applicable)?

	Very good	*Good*	*Satisfactory*	*Un-satisfactory*
13.1 Technical abilities	1	2	3	4
13.2 Knowledge in non-technical fields	1	2	3	4
13.3 Knowledge in English	1	2	3	4
13.4 Willingness to learn	1	2	3	4
13.5 Capacity to adapt to the work environment	1	2	3	4
13.6 Ability to solve problems	1	2	3	4
13.7 Commitment to the job and to the enterprise	1	2	3	4

14. How do you assess the skills/ability of **technical/vocational school** graduates in the following areas (circle where appropriate)?

	Very good	*Good*	*Satisfactory*	*Un-satisfactory*
14.1 Technical abilities	1	2	3	4
14.2 Knowledge in non-technical fields	1	2	3	4
14.3 Knowledge in English	1	2	3	4
14.4 Willingness to learn	1	2	3	4
14.5 Capacity to adapt to the work environment	1	2	3	4
14.6 Ability to solve problems	1	2	3	4
14.7 Commitment to the job and to the enterprise	1	2	3	4

15. How do you assess the skills etc. of **ordinary secondary schoo**l graduates, with 'O' levels in English and Mathematics in the following areas (circle where appropriate)?

	Very good	*Good*	*Satisfactory*	*Un-satisfactory*
15.1 Technical abilities	1	2	3	4
15.2 Knowledge in non-technical fields	1	2	3	4
15.3 Knowledge in English	1	2	3	4
15.4 Willingness to learn	1	2	3	4
15.5 Capacity to adapt to the work environment	1	2	3	4
15.6 Ability to solve problems	1	2	3	4
15.7 Commitment to the job and to the enterprise	1	2	3	4

16. If any, how were employees recruited in 2003 (circle where appropriate)?

	Yes	*No*
16.1 Direct from their training institutions	1	2
16.2 From Labour Office	1	2
16.3 Through advertisements on TV, newspapers, etc.	1	2
16.4 Through friends, relatives, workers working at the enterprise	1	2
16.5 Other (specify) _____	1	2

17. How important, in general, are the following aspects for the recruitment?

17(a) A **skilled worker** (circle where appropriate)

	Very important	*Important*	*Not important*
17(a).1 Education in mathematics, science and basic skills	1	2	3
17(a).2 Ability to read, write, understand English	1	2	3
17(a).3 Vocational/technical education and training	1	2	3
17(a).4 Previous employment experience	1	2	3
17(a).5 Reputation of the institute or school where he/she is trained	1	2	3
17 (a).6 Diploma/certificate	1	2	3
17 (a).7 Personality	1	2	3
17 (a).8 Age	1	2	3
17 (a).9 Gender	1	2	3
17(a).10 Others (specify) _____	1	2	3

17 (b) A **technician** (circle where appropriate)

	Very important	*Important*	*Not important*
17(b).1 Education in mathematics, science and basic skills	1	2	3
17(b).2 Ability to read, write, understand English	1	2	3
17(b).3 Vocational/technical education and training	1	2	3
17 (b).4 Previous employment experience	1	2	3
17 (b).5 Reputation of the institute or school where he/she is trained	1	2	3
17 (b).6 Diploma/certificate	1	2	3
17 (b).7 Personality	1	2	3
17 (b).8 Age	1	2	3
17 (b).9 Gender	1	2	3
17 (b).10 Others (specify) _____	1	2	3

17 (c) A **university graduate** (circle where appropriate)

	Very important	*Important*	*Not important*
17 (c).1 Education in mathematics, science and basic skills	1	2	3
17 (c).2 Ability to read, write, understand English	1	2	3
17 (c).3 Vocational/technical education and training	1	2	3
17 (c).4 Previous employment experience	1	2	3
17 (c).5 Reputation of the institute or school where he/she is trained	1	2	3
17 (c).6 Diploma/certificate	1	2	3
17 (c).7 Personality	1	2	3
17 (c).8 Age	1	2	3
17 (c).9 Gender	1	2	3
17 (c).10 Others (specify) _____	1	2	3

1 FUTURE MANPOWER NEEDS

18 (a) Do you plan to hire new employees in 2005? →

Yes = 1 No = 2 ☐

18 (b) If yes to Q.18 (a), how many new employees do you plan to hire for 2005?

18(b).1 Without any education	(Persons)	[_____]
18(b).2 With primary school education	(Persons)	[_____]
18(b).3 Junior secondary education	(Persons)	[_____]
18(b).4 With secondary school education	(Persons)	[_____]
18(b).5 Technical school education (3 years)	(Persons)	[_____]
18 (b).6 Technical institute education	(Persons)	[_____]

18 (b).7 Vocational training (6-8 months)	(Persons)	[_____]
18 (b).8 University/college	(Persons)	[_____]

2

3

4 *FORMAL TRAINING*

19 Formal in-house instruction and training by enterprise and external trainers

19 (a) When you recruit a graduate from an education institution, do you train him/her? .....

Yes = 1 No = 2 ☐

19 (b) If answer to Q 19 (a) is yes, for how long?

From secondary non technical/non vocational school	(In week)	[_____]
From technical school	(In week)	[_____]
From technical institute	(In week)	[_____]
From university	(In week)	[_____]

19 (c) Do you organize in-house training for your workers →

Yes = 1 No = 2 ☐

19 (d) Does your enterprise have a formal in-house training programme? →

Yes = 1 No = 2 ☐

19 (e) In what year did your enterprise first introduce a formal training programme?

Write the year here: ☐☐☐☐

19 (f) Do you have staff with training responsibilities →

Yes = 1 No = 2 ☐

19 (g) How many of these staff can be considered as trainers? (Persons) [_____]

19 (h) Tell us the number of employees trained and average number of weeks of training received by workers in 2003?

19 (h).1 Number trained	(Persons)	[_____]
19 (h).2 Average number of weeks of training	(Weeks)	[_____]

19 (i) In 2003, did you use any external training institution to train your employees in your enterprise? →

Yes = 1 No = 2 ☐

19 (j) In 2003, how much in total did your establishment pay for in-house training provided by these external trainers? (Ush) [_____]

20. Formal Training Outside the Establishment:

20 (a) In 2003, did you send employees outside the enterprise for formal training or formal courses of study? ☐

→

Yes = 1 No = 2

20 (b) In 2003, how many employees received training from external sources?

List university, technical institutes and technical/vocational schools and other sources here		
	(Persons)	[_____]
20 (b).1	(Persons)	[_____]
20 (b).2	(Persons)	[_____]
20 (b).3	(Persons)	[_____]
20 (b).4	(Persons)	[_____]
20 (b).5	(Persons)	[_____]

20 (c) Did you pay for?

All the training fees = 1

Part of the training fees = 2 → ☐

None of the training fees = 3

20 (d) In 2003, how much in total did your enterprise/company pay for these formal training courses provided from all external sources? (Ush) [_____]

5 ***21.*** *Informal In-plant Training*

21 (a) Do foremen and supervisors have responsibility for providing informal in-plant instruction and training to workers? → ☐

Yes = 1 No = 2

21 (b) On average, how many weeks of informal individual/in-plant training or supervisions did a typical worker get in 2003?

21 (b).1 Workers who have been with the enterprise less than one year (weeks)

(Weeks) [_____]

21 (b).2 All other workers (Weeks) [_____]

6 ***22.*** *Training Plan*

22 (a) Does your enterprise have a training plan? →

Yes = 1 No = 2 (skip to Q.23)

22 (b) How was the training plan developed? →

Training plan developed with own staff = 1

Training plan developed with help from outside consultants = 2

7 ***23.*** *Miscellaneous Questions*

23 (a) What is the highest level of education of the manager? →

None = 1
Primary = 2
Junior secondary = 3
Senor secondary = 4
College = 5
First degree university and above = 6

23 (b) Does your firm have an account with a bank? →

Yes = 1 No = 2

23 (c) Has your firm ever received a loan from a bank? →

Yes = 1 No = 2

Industrial Human Resources Survey

(***For University and technical institutes graduates only***)

1.1.What was the subject of your first diploma or degree:

(a) Engineering/Technology etc

(b) Physical Sciences (e.g. Physics, Chemistry, Geology etc)

(c) Life Sciences (e.g. Biology, Zoology, Botany etc)

(d) Social Sciences (e.g. Economics, Sociology, Psychology etc)

(e) Humanities (e.g. History, Languages/literature, Philosophy etc)

(f) Mathematics

(g) Other (Please specify)----------

1.2. What is your present function in the Department of Government or Business, where you are currently employed? ----------

1.3. Which academic areas of study, as shown below, do you feel have better equipped you for the work in which you are currently engaged:

(a) Languages

(b) Mathematics (and its associated subjects, e.g. Statistics etc.)

(c) Engineering/Technology

(d) Physical Sciences

(e) Life Sciences

(f) Management/Business (e.g. Psychology, Law, Economics, Sociology etc)

(g) Humanities (History, Philosophy, Languages/literature etc)

(h) Simple computer operations (Internet, search engines etc)

(i) Other areas. Please specify----------

1.4.If you had the opportunity of doing short specialized courses in any of the areas mentioned in para 3 above, would you be willing to do so?

Answer: YES NO

1.4(a) In which areas above:

1.4(b) If your answer to 4 is YES, would you be willing to take leave from your present employer to do so, if leave was:

(i) Paid

(ii) Unpaid

1.4(c) If your answer to paragraph 4 is YES, would you be willing to do such a course:

(i) At weekends

(ii) In the evening

(iii) During your annual leave

(iv) By correspondence (e-mail/Internet)

(v) By correspondence (postal services)

END OF QUESTIONNAIRE

Date _____month _____ 2004
Name and signature of Interviewer

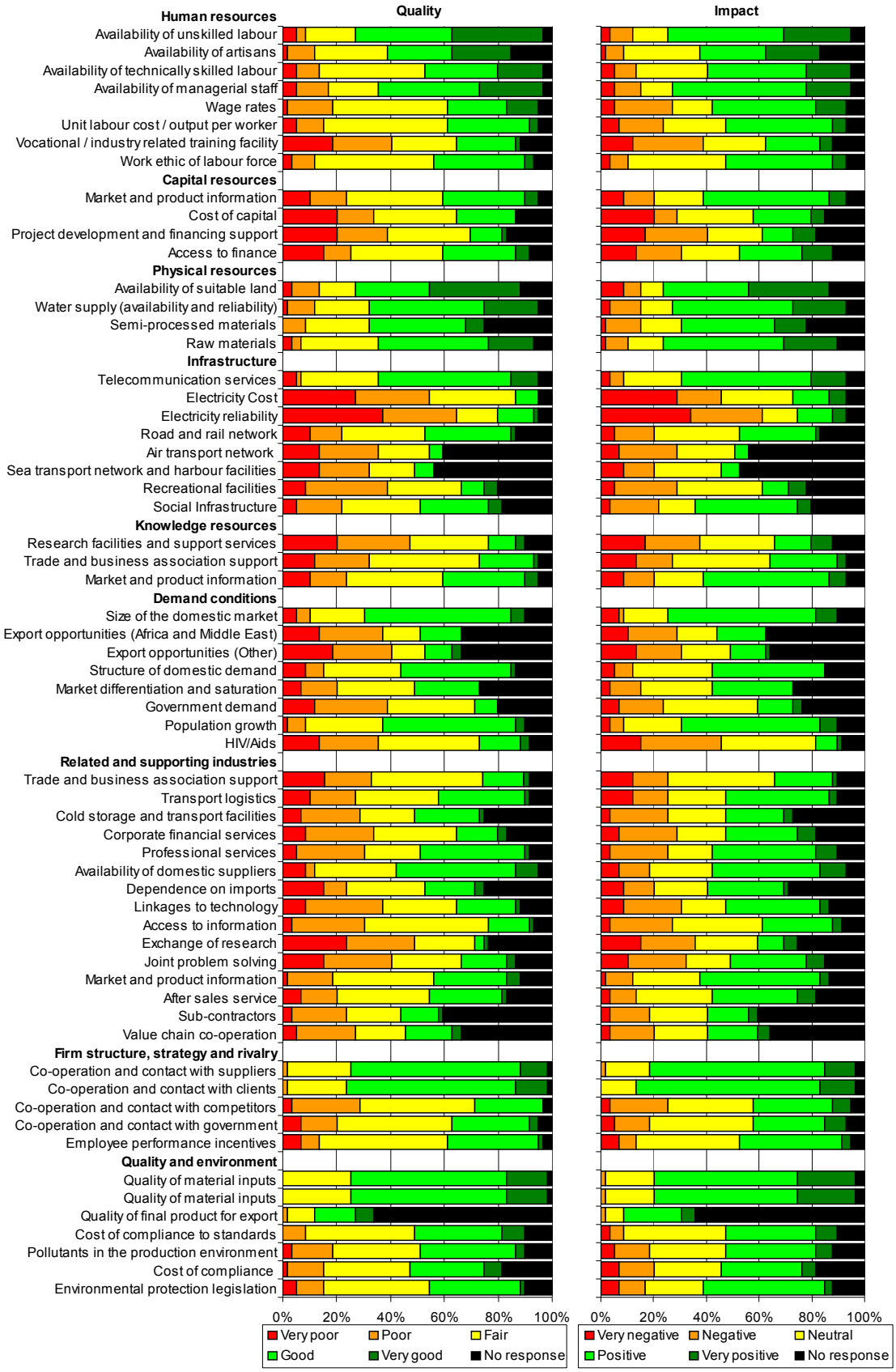
Date _____month _____ 2004
Name and signature of Supervisor

Date _____month _____ 2004
Name and signature of project Coordinator

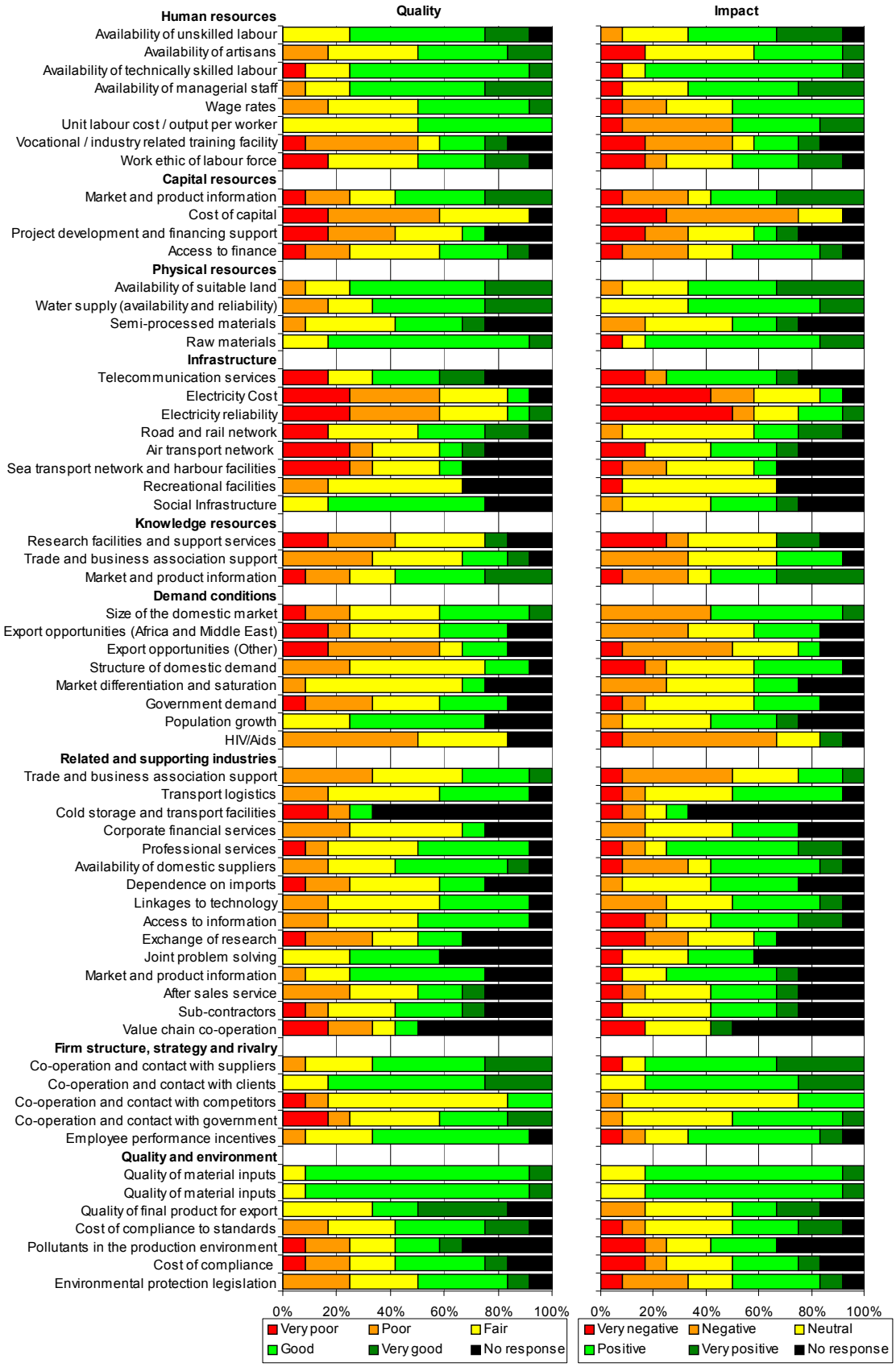
Annex C

Survey Results
Competitiveness Factors

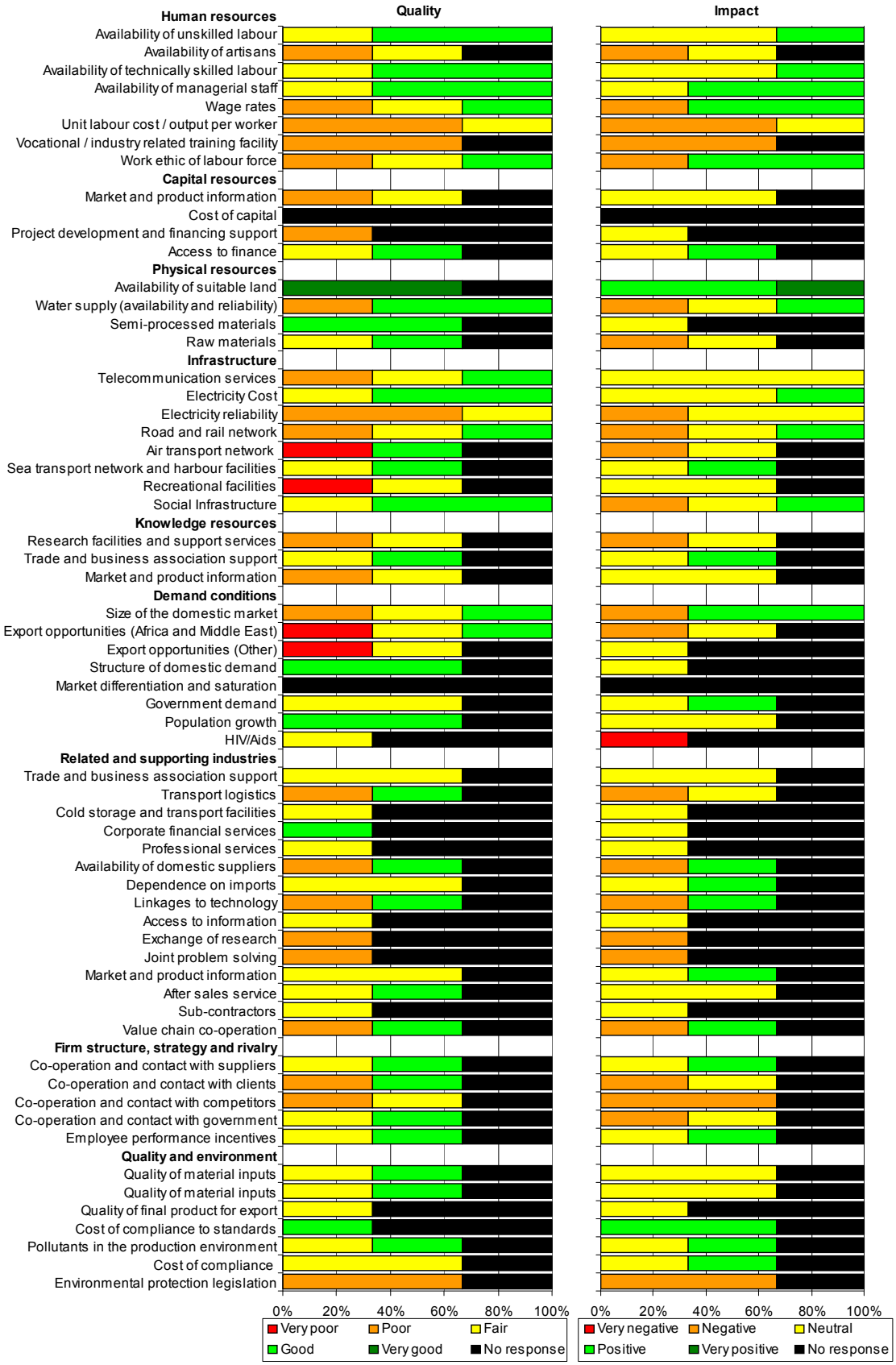
Food processing



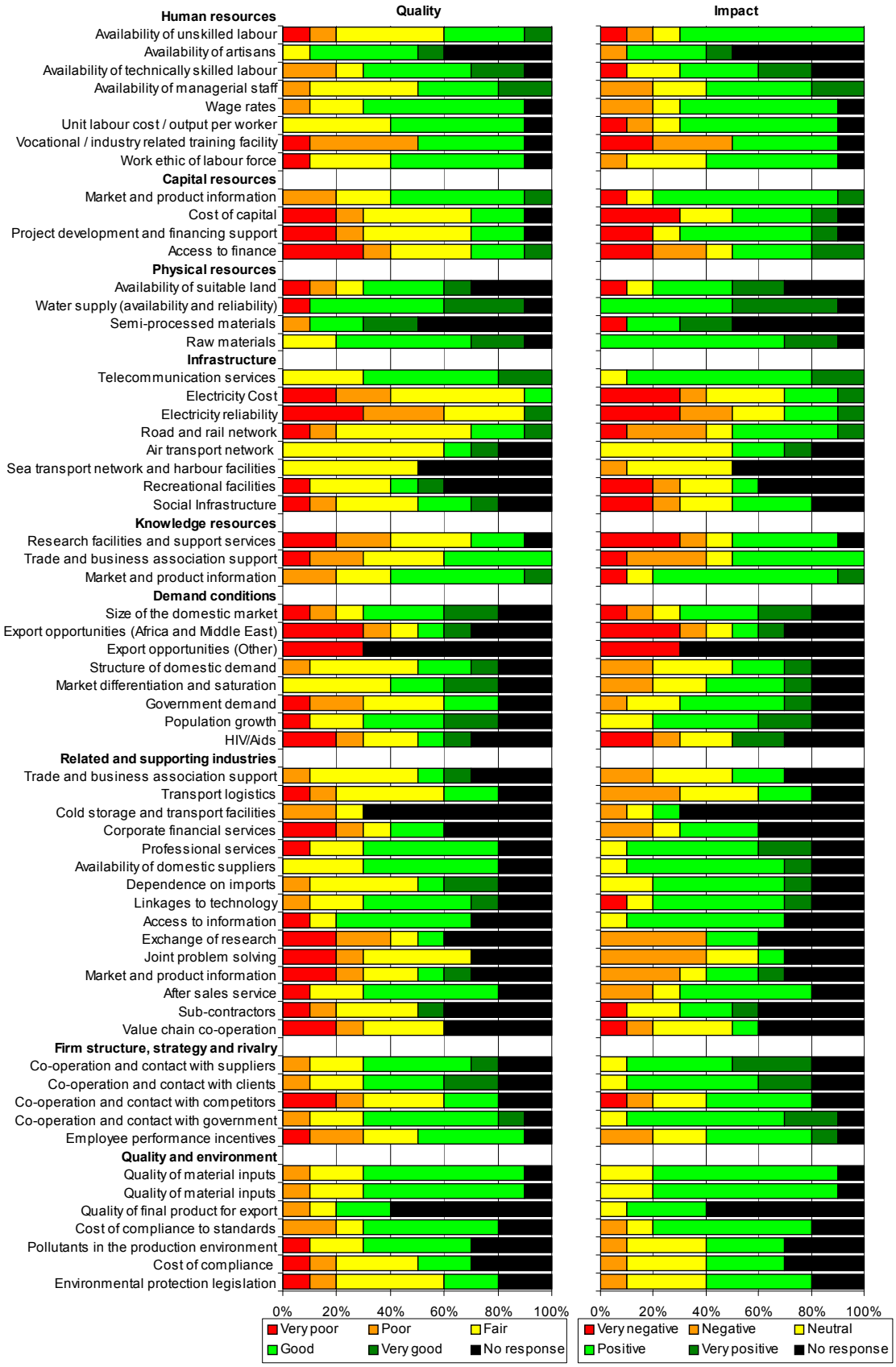
Textiles, clothing and leather



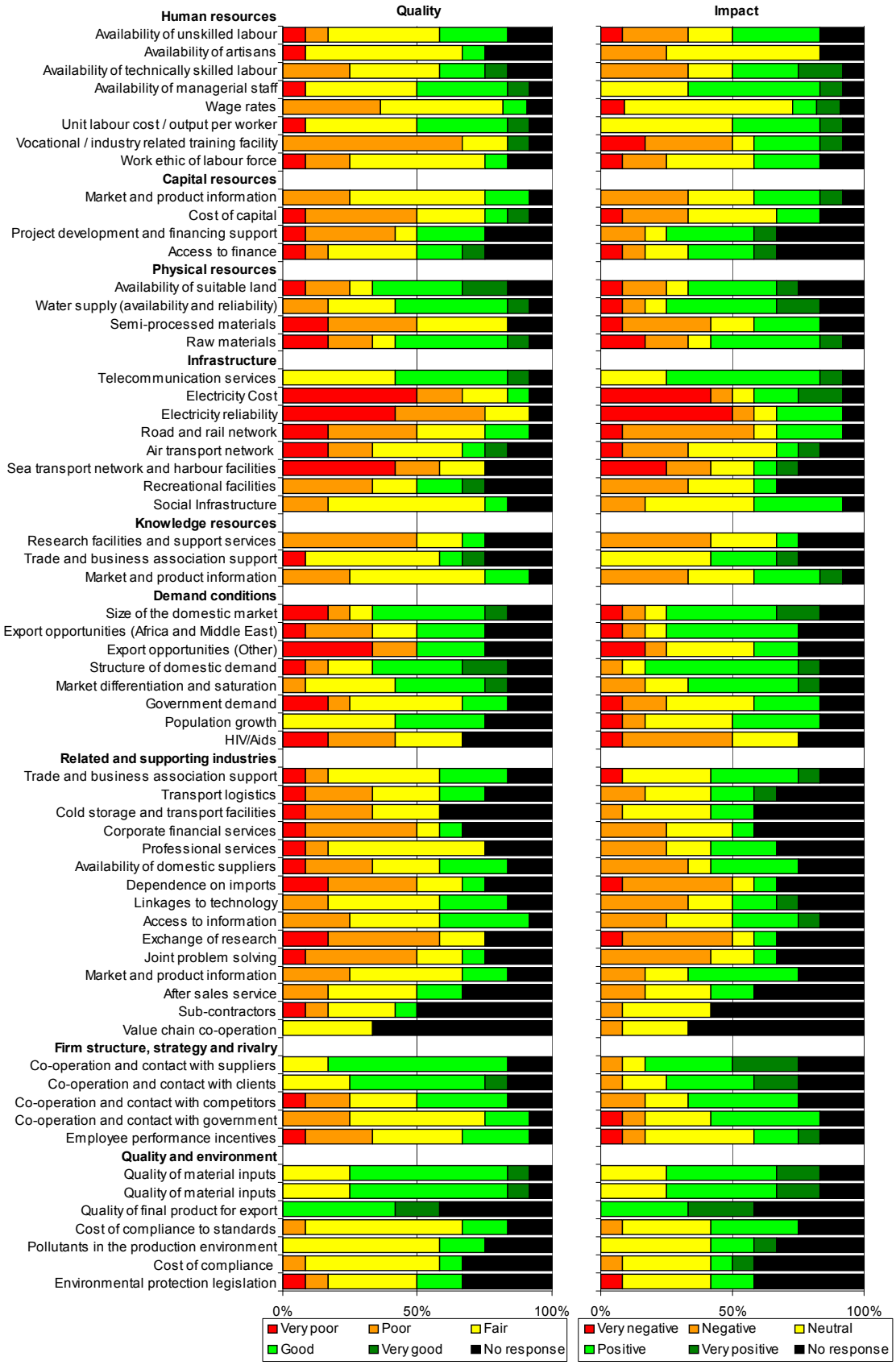
Wood and wood products



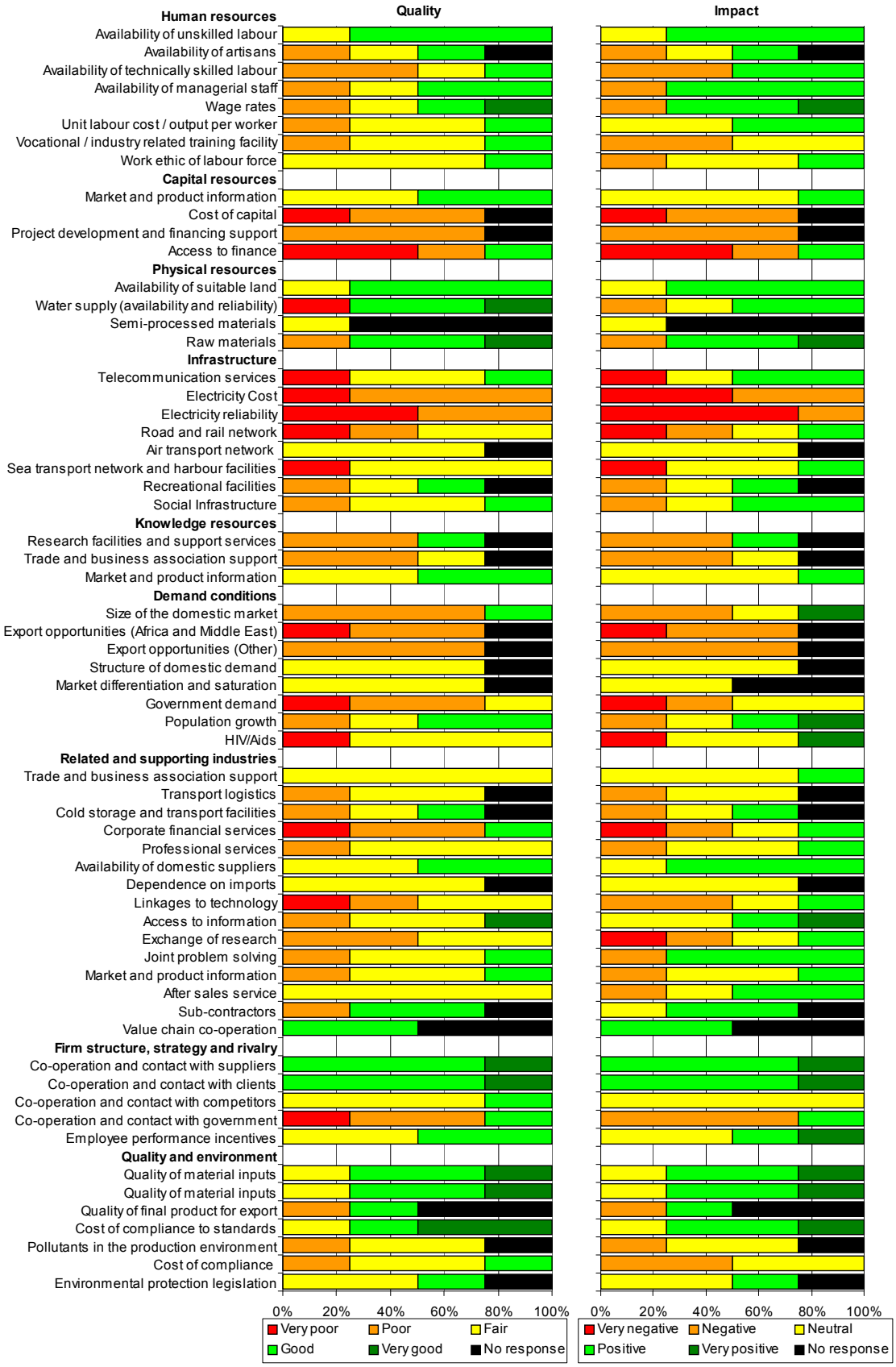
Printing and publishing



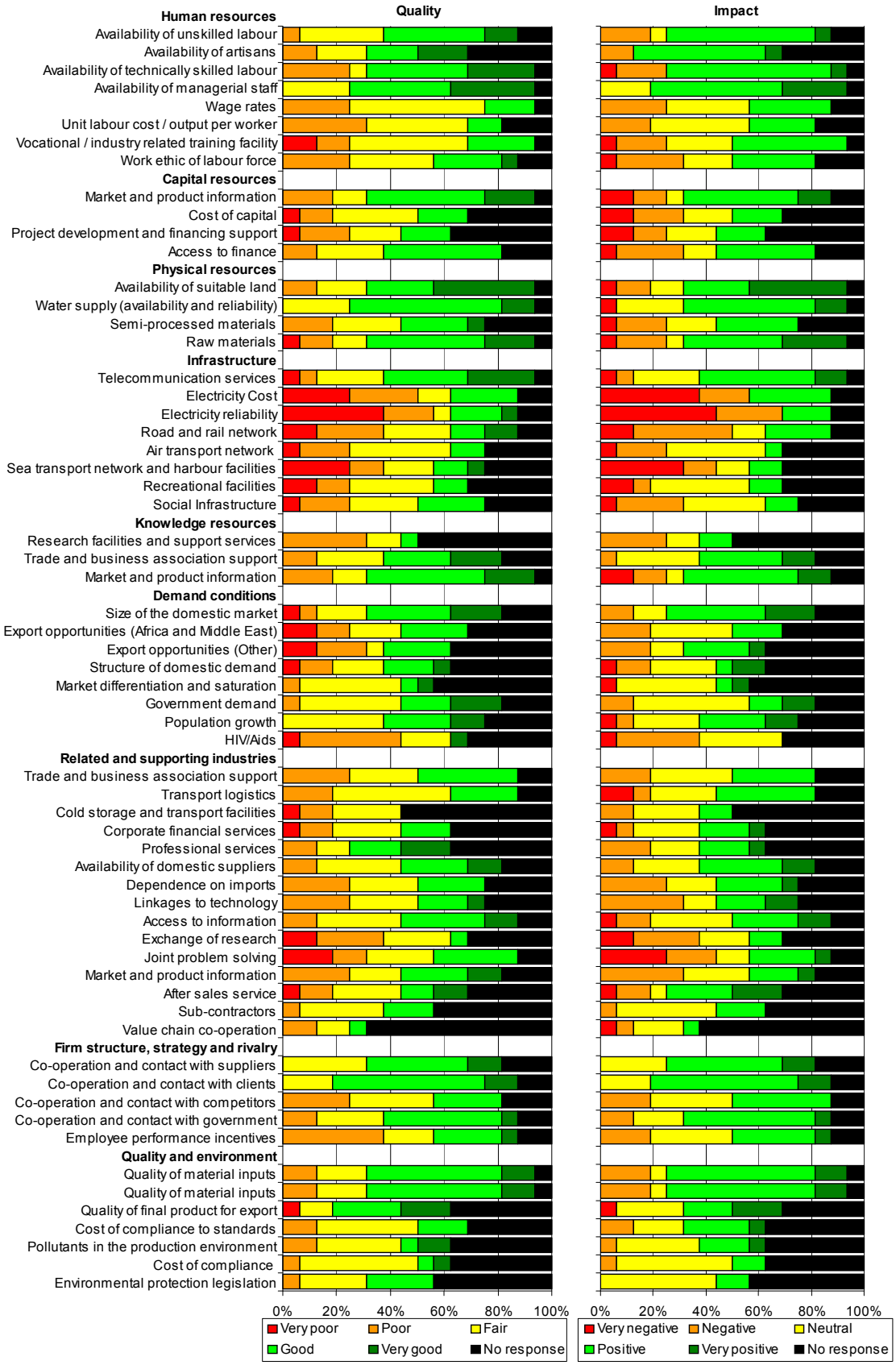
Chemicals, rubber and plastics



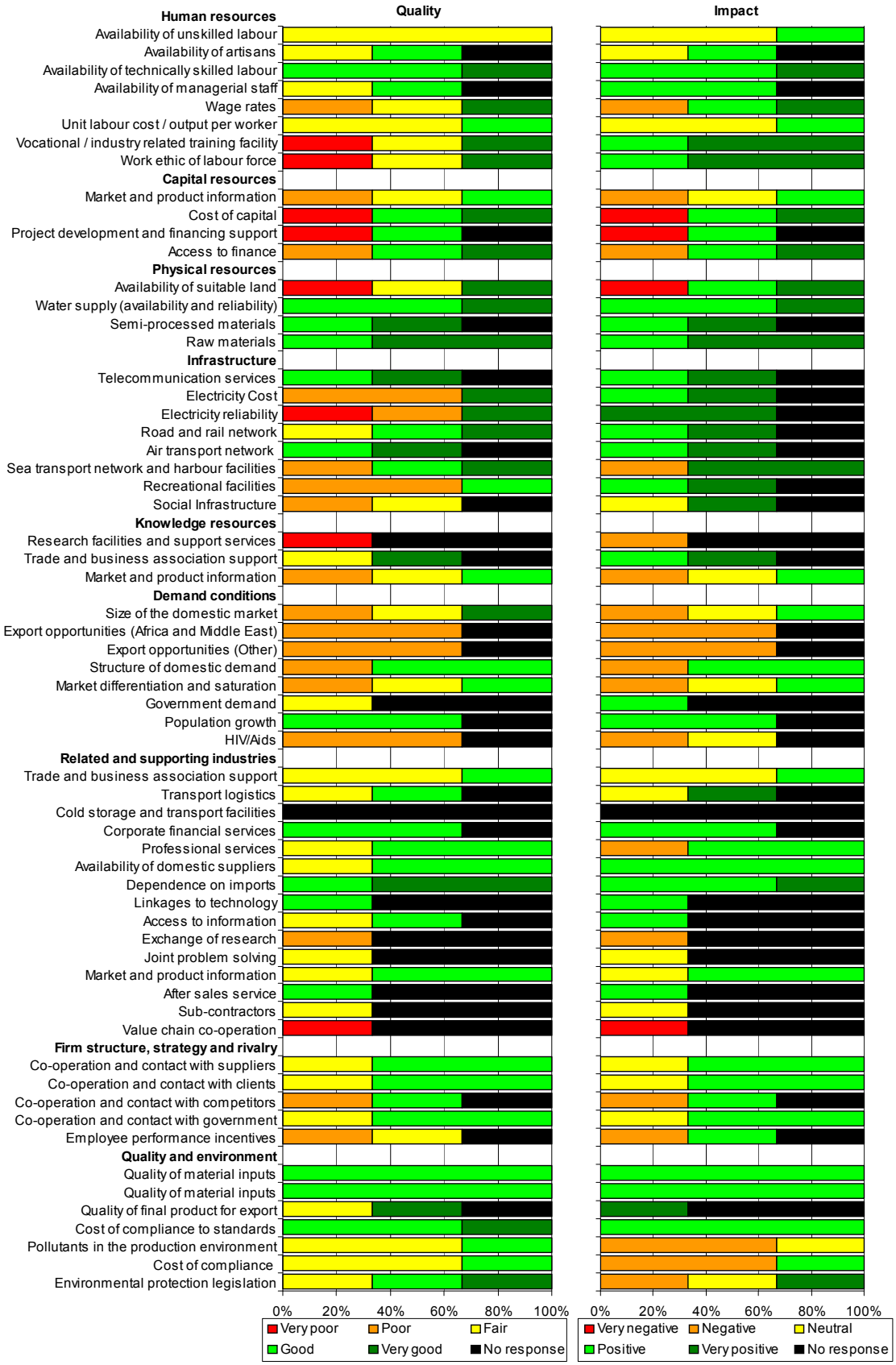
Non-metallic minerals



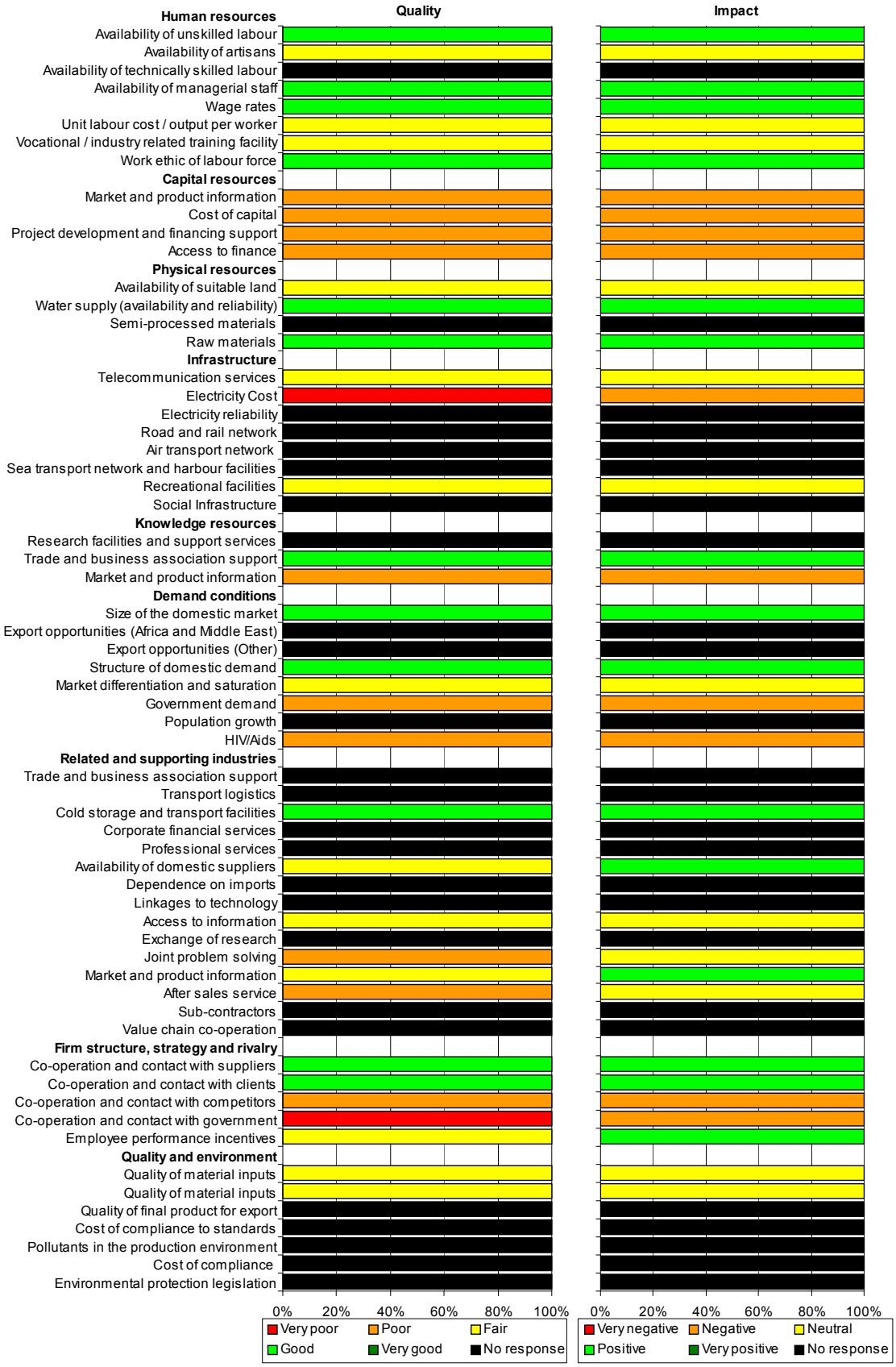
Metals and metal products



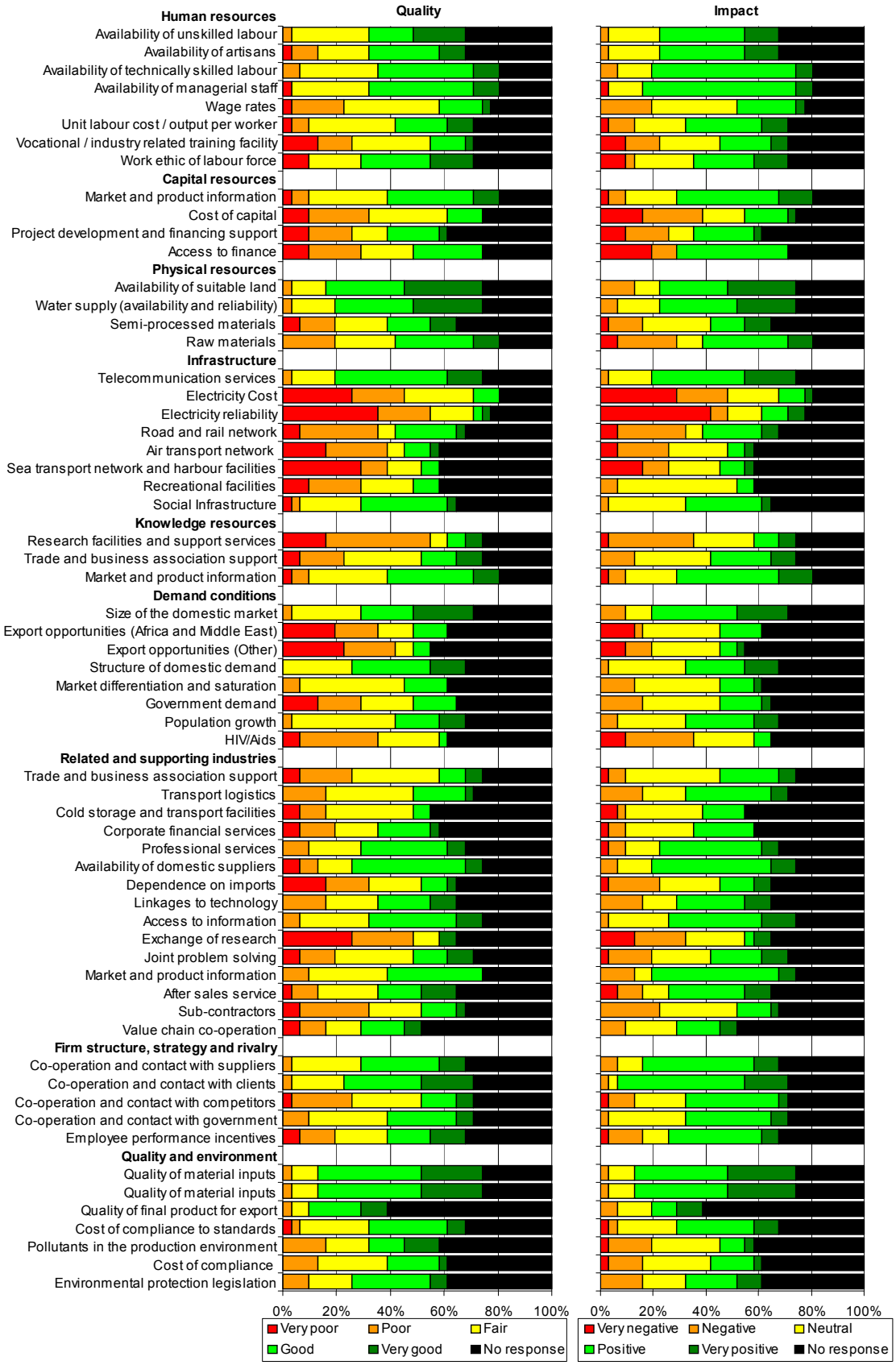
Electrical machinery



Transport equipment



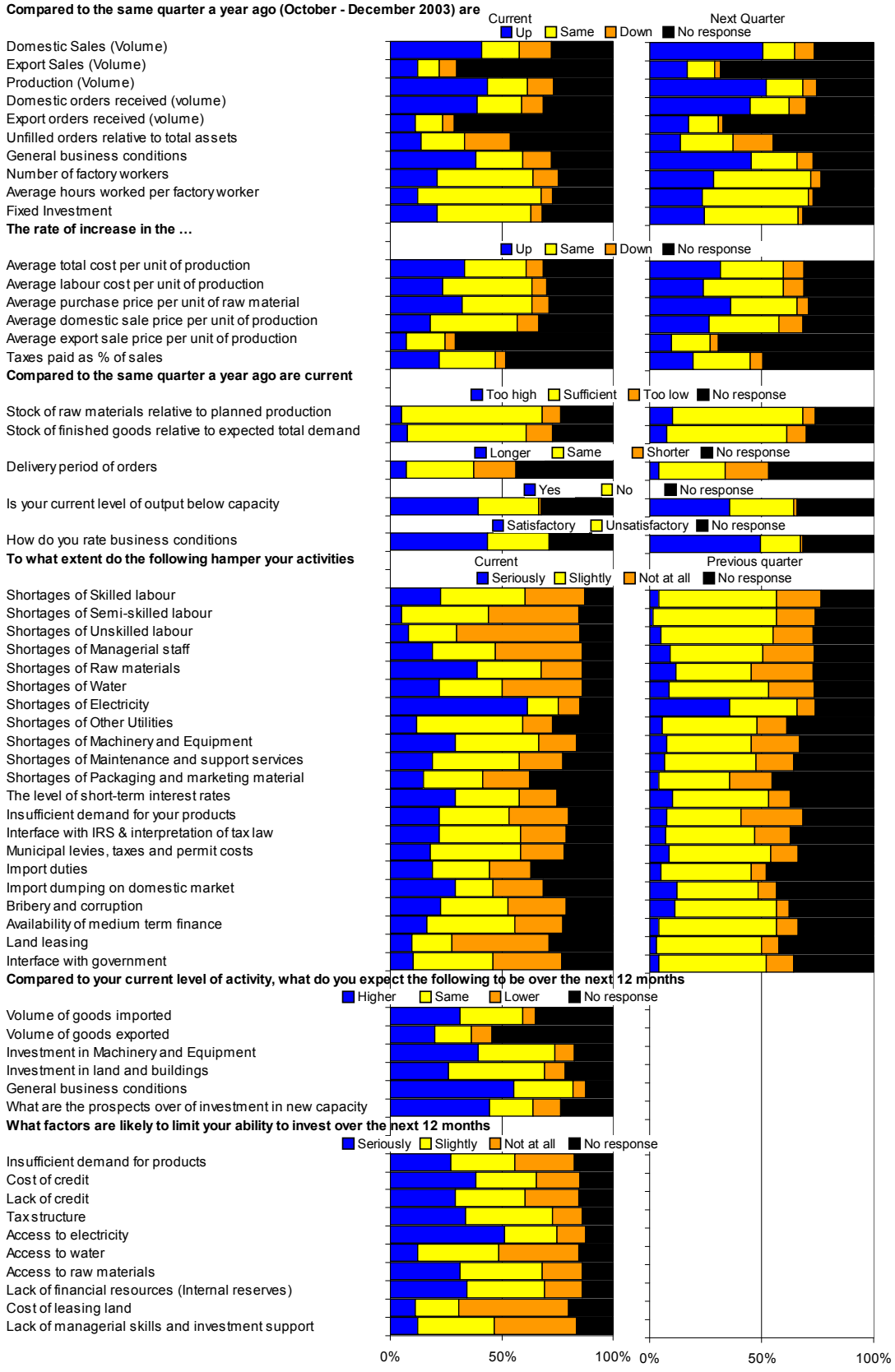
Furniture and other manufacturing



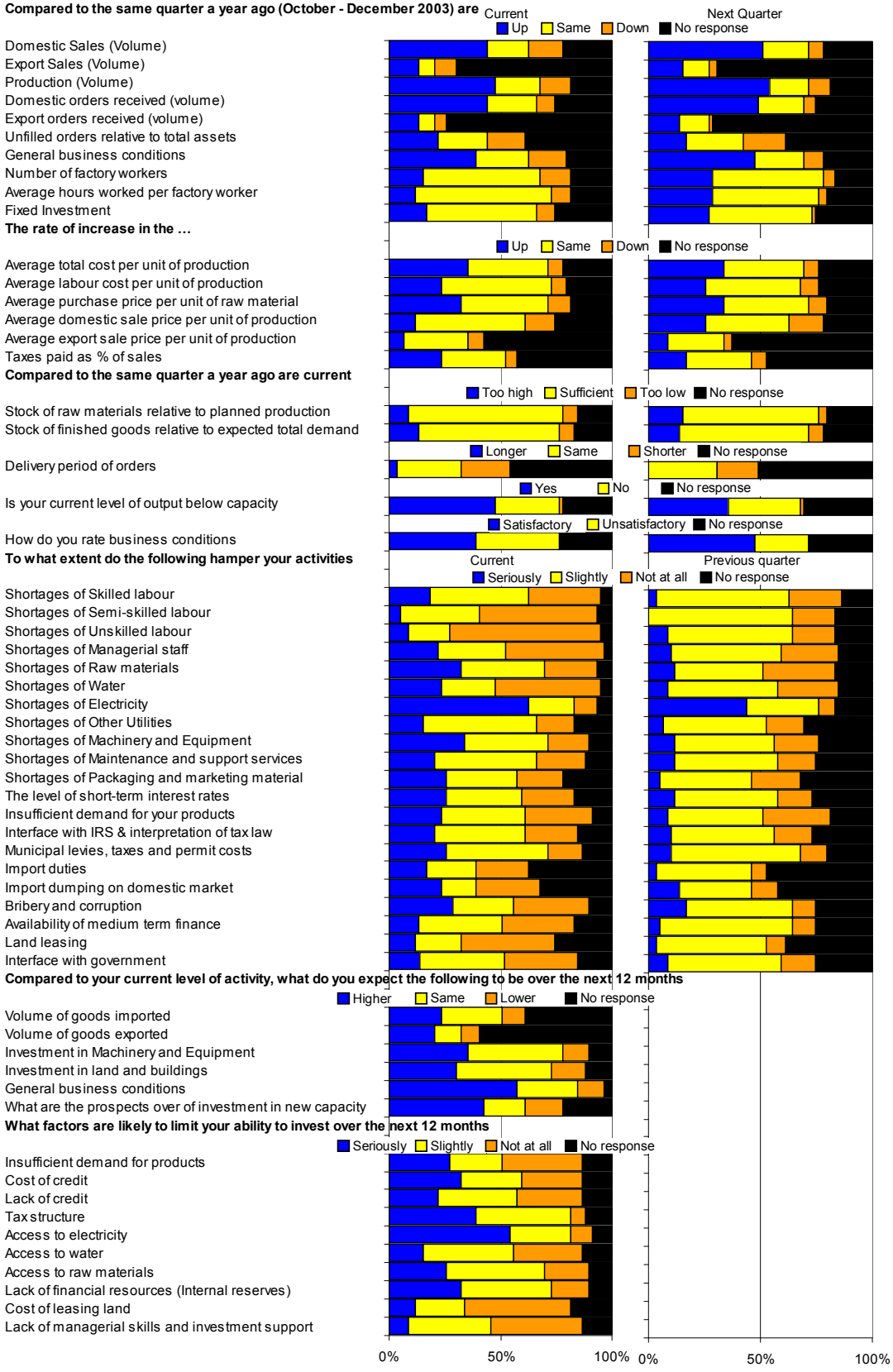
Annex D

Survey on Economic Activity

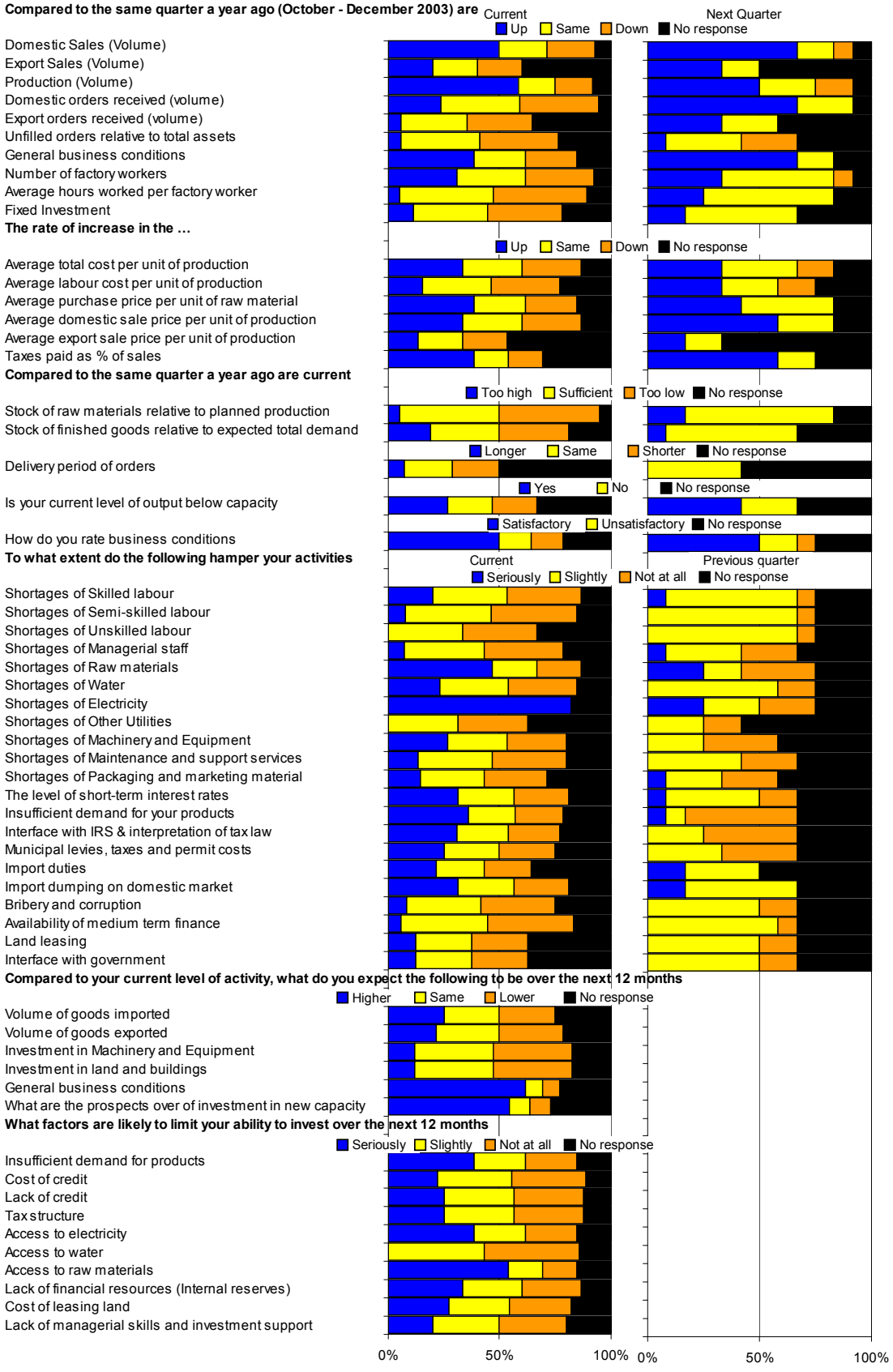
Total manufacturing



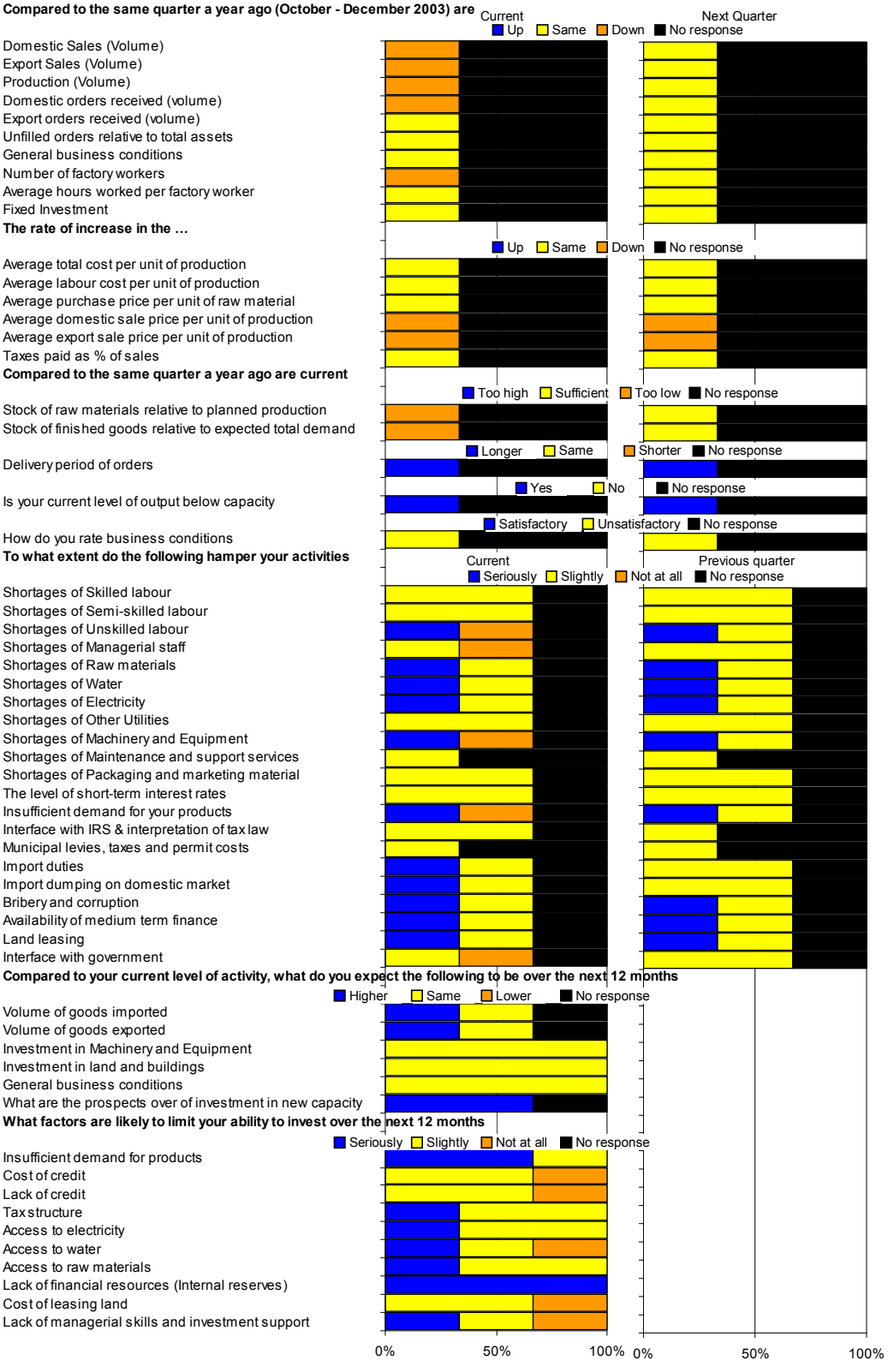
Food processing



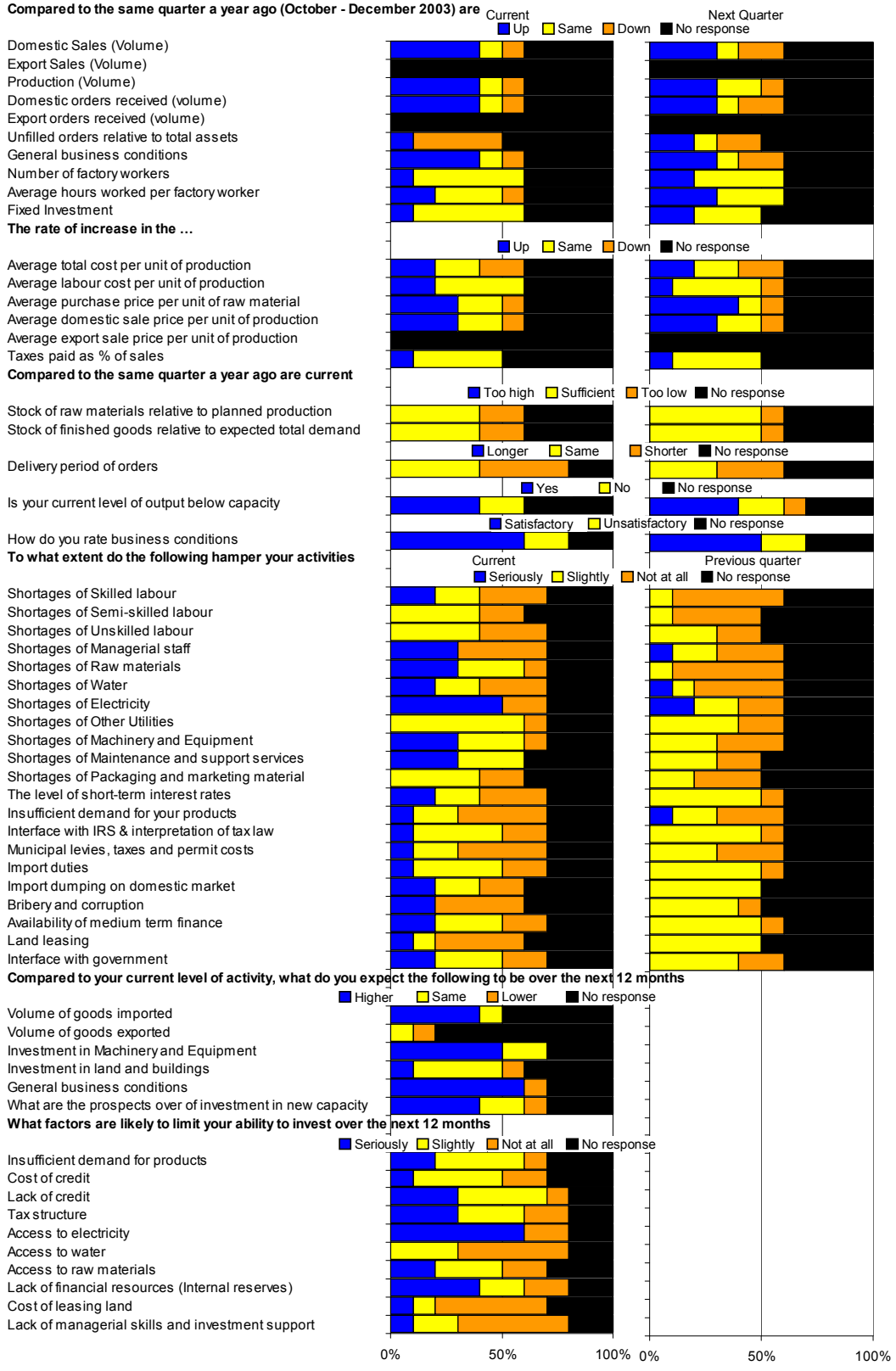
Textiles, clothing and leather



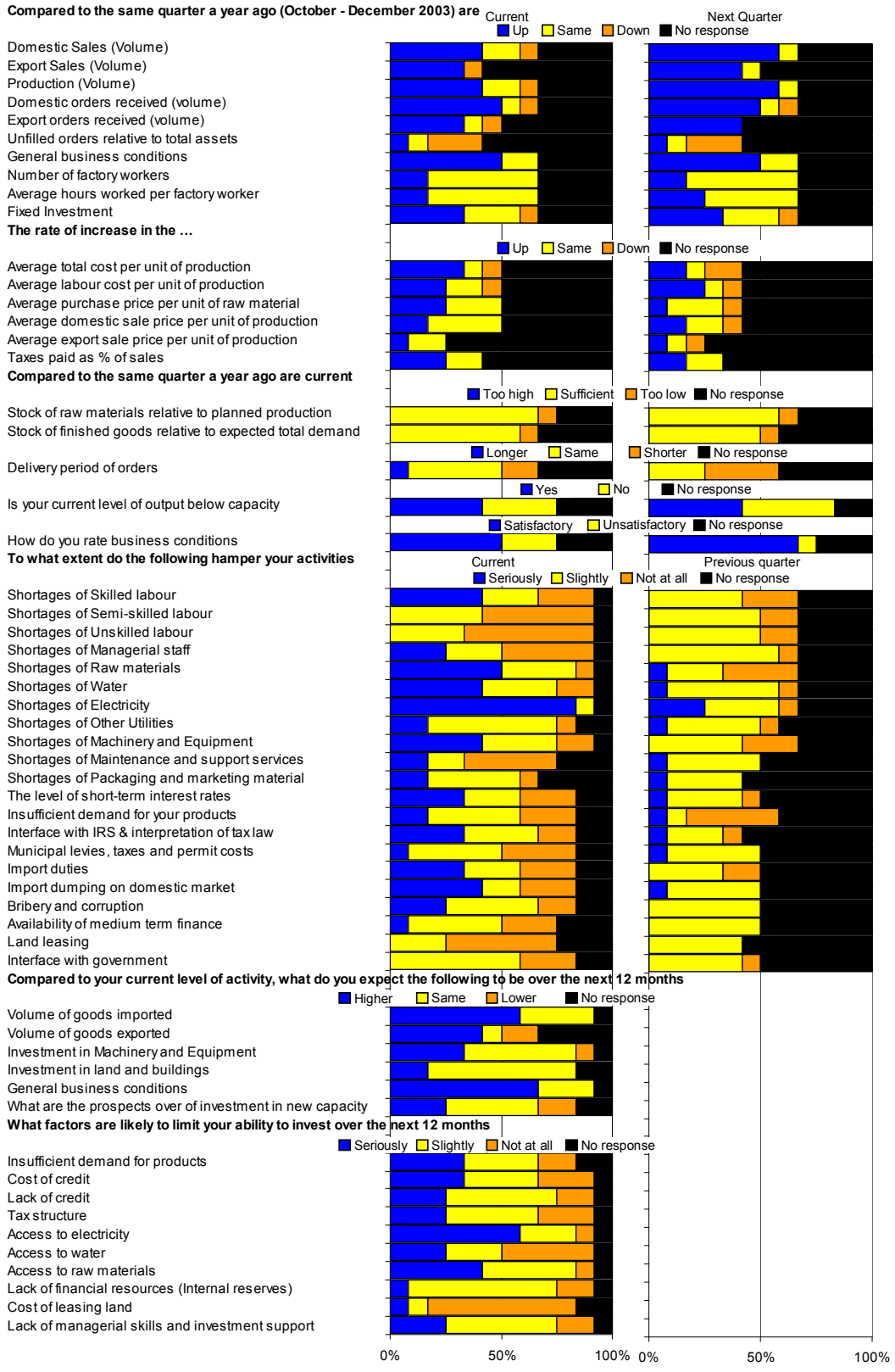
Wood and wood products



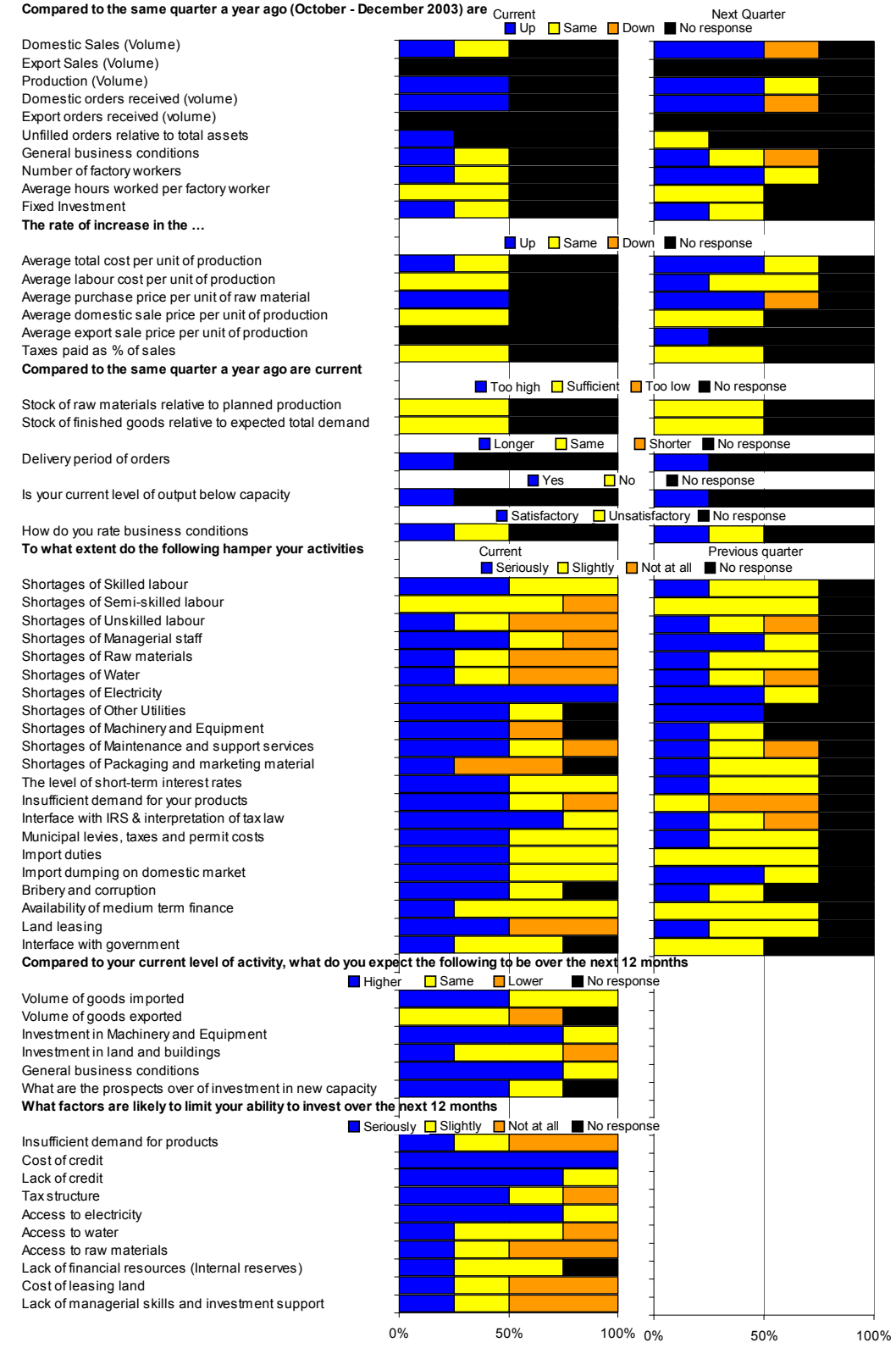
Printing and publishing



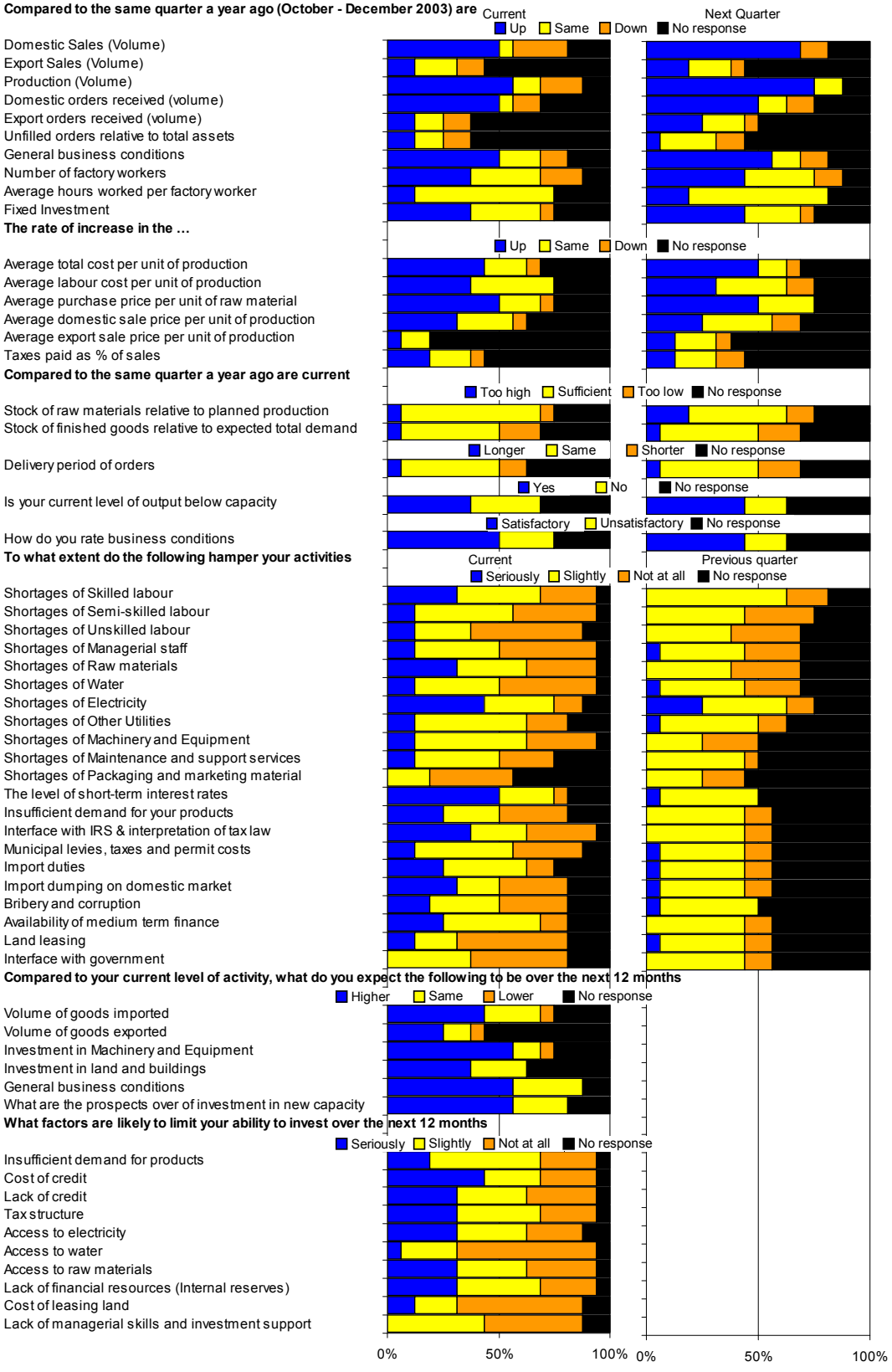
Chemicals, rubber and plastics



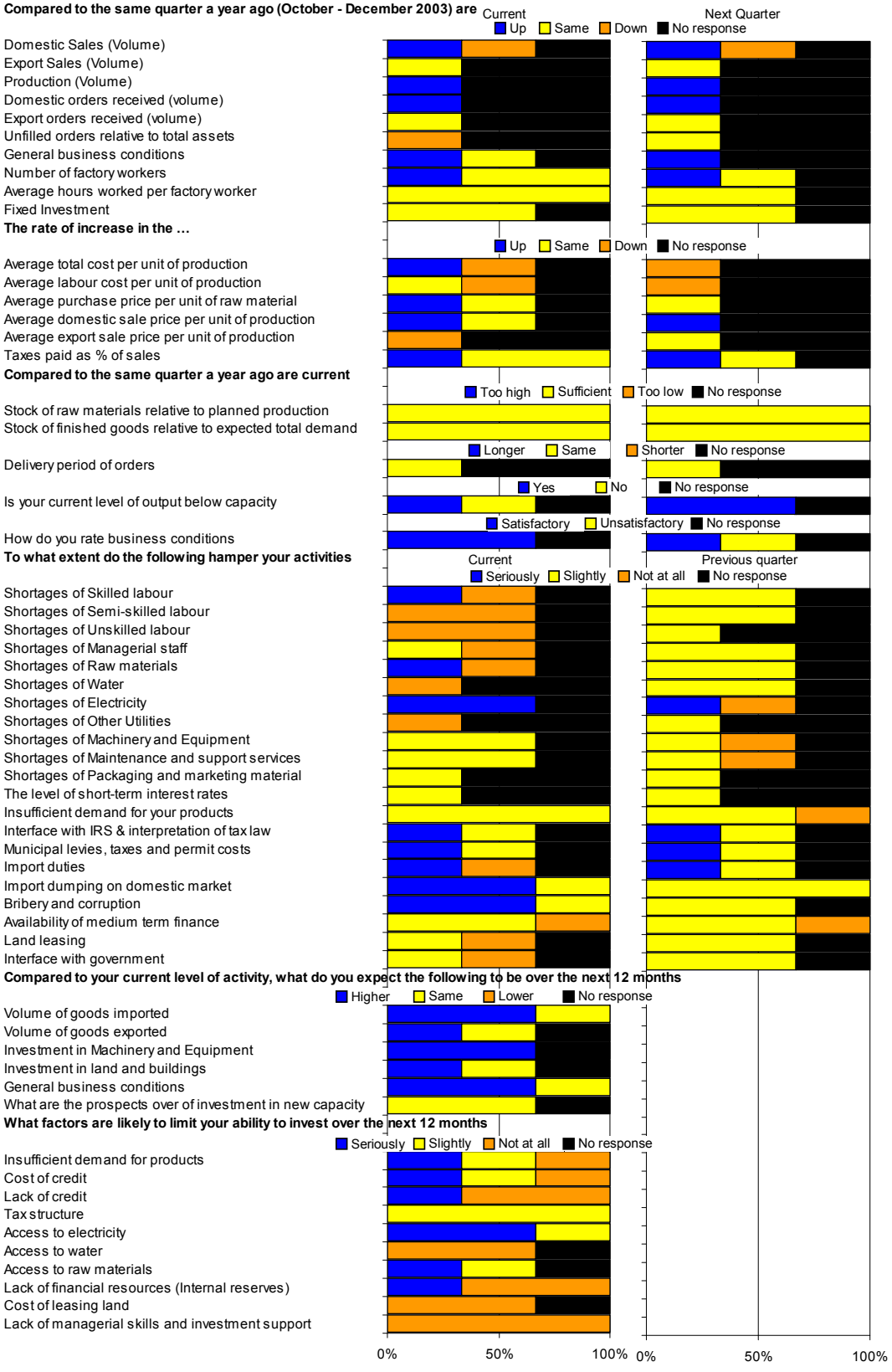
Non-metallic minerals



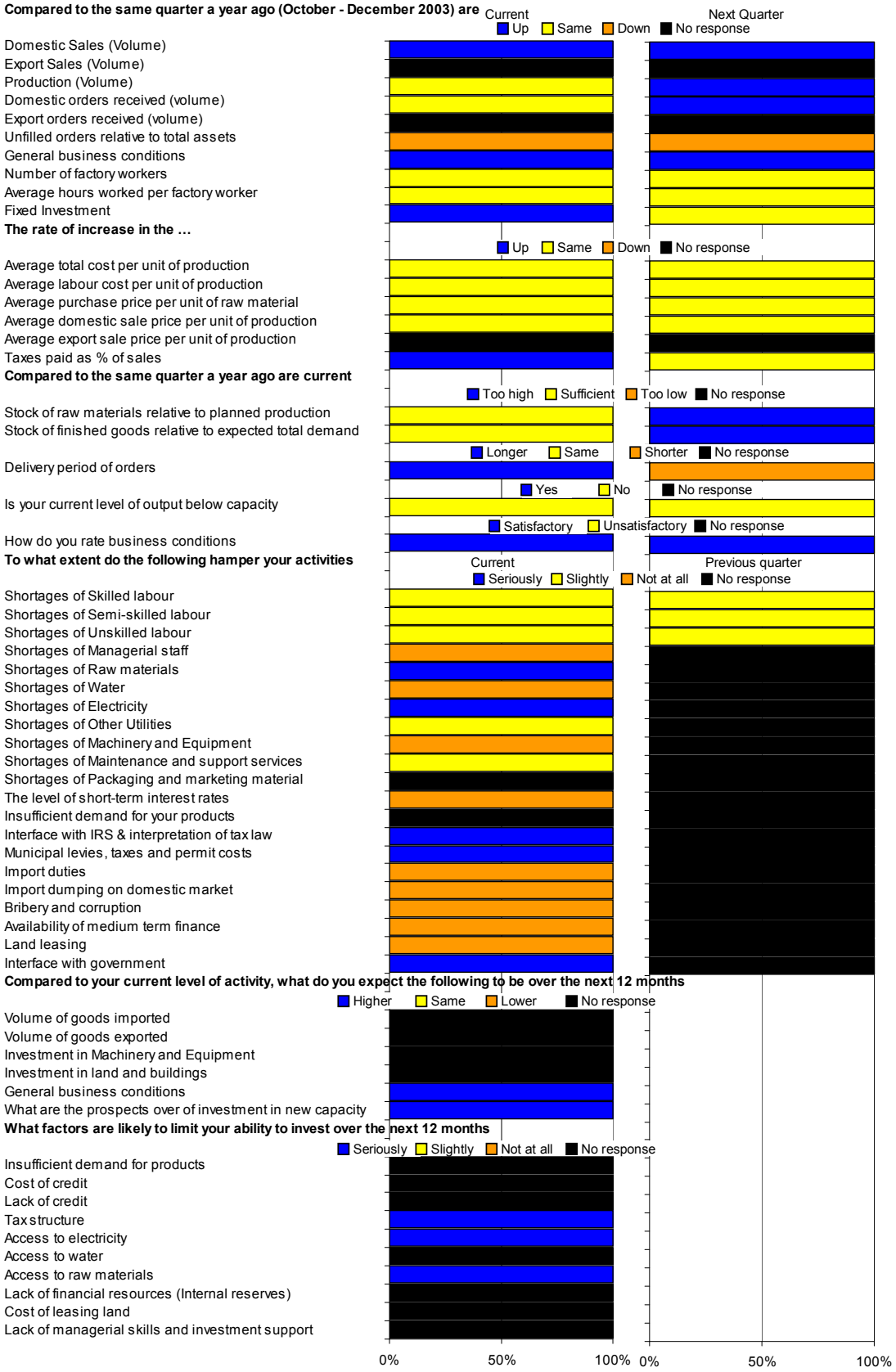
Metals and metal products



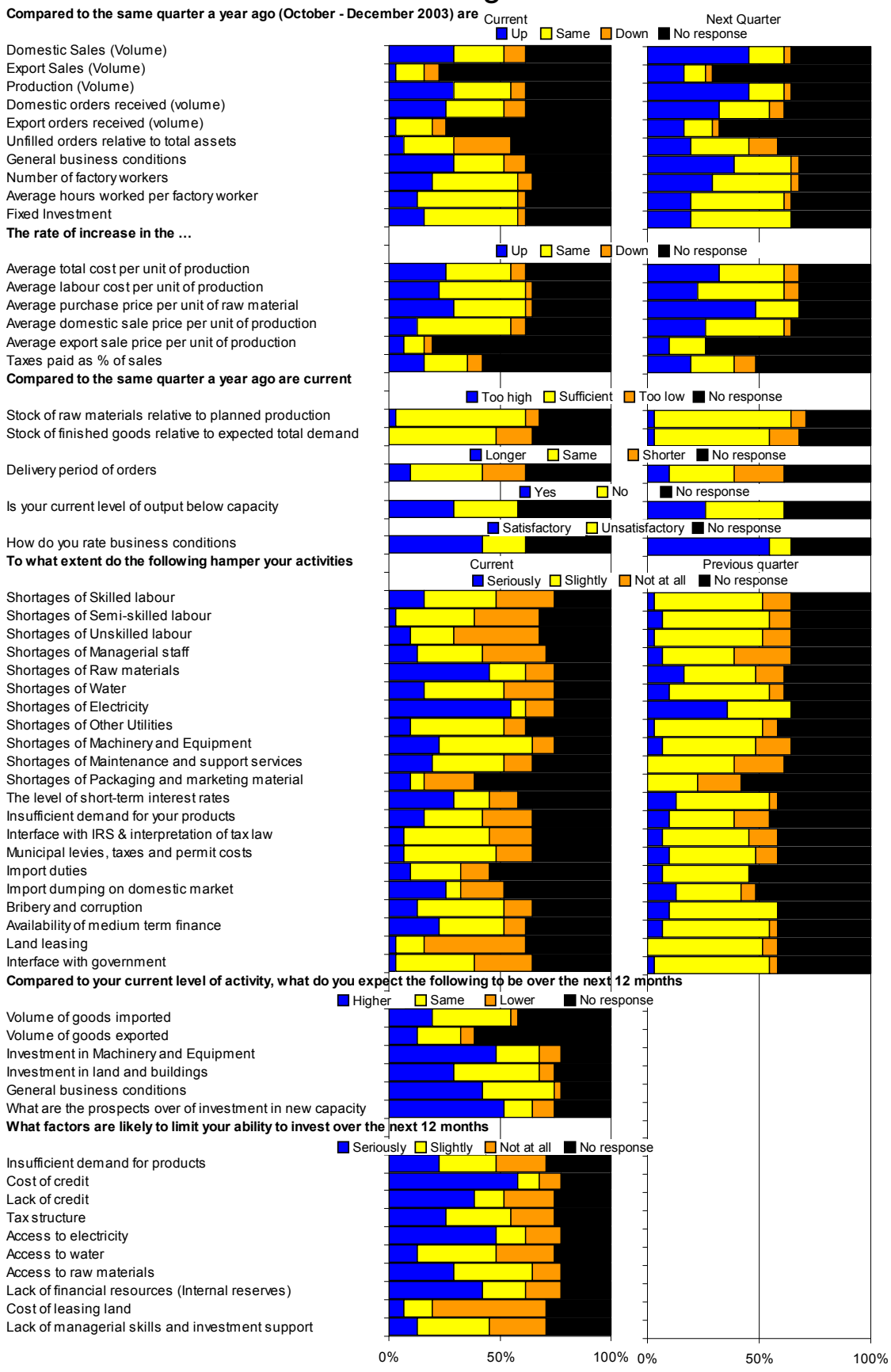
Electrical machinery



Transport equipment



Furniture and other manufacturing



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