

Executive Summary

1 Setting and Approach

Sustaining export growth in Mauritius calls for a strategy. The base of existing competitive advantages is narrow and eroding rapidly. It needs to be broadened if Mauritius is to cope effectively with the emerging post-Uruguay Round international trading environment and new technologies. While many of the determinants of competitiveness, such as the incentive regime, FDI promotion, physical infrastructure, skills, technology and information support, are good by developing country standards, there remain deficiencies that need to be remedied. More importantly, however, the country has reached a plateau in terms of how far it can go with its existing endowments, and it needs to alter the underlying structure.

National competitiveness is the sum of the efficiency and dynamism of individual firms, together with their interactions and synergy. Firm-level competitiveness cannot be taken for granted if the markets and institutions they draw upon are not efficient and responsive. Capability development can be a slow, often costly and risky process – a process of learning how to absorb new technologies and skills and managing continuous change and upgrading. The building of ‘capacity’ (i.e. the physical plant and equipment for production) is only a part of the process; what is often more important is the ability to operate this capacity at the levels of efficiency required to compete in changing world markets. The individual firm does not develop its capabilities in isolation; if it did, there would be little scope for policy support. It reacts to signals from the market, and draws upon other firms, factor markets and institutions. The need for policy support arises when these markets do not function efficiently, i.e. when they suffer from ‘market failures’.

2 Export Performance in a Comparative Perspective

Over the last two decades, Mauritius has achieved considerable success in exporting manufactured products and altering the structure of its competitiveness. It has built up a significant base of export-related skills, information and institutions, far ahead of neighbouring countries in Africa. It has moved from a heavy dependence on foreign firms in EPZs to a position where the majority of exports now come from domestically-owned companies. Over time, as wages have risen, exporters have managed to substantially upgrade the quality of their products; some have built up their own design and marketing capabilities. These are impressive achievements.

At the same time, there are significant weaknesses in export performance. The range of exports is relatively narrow: there are many ‘gaps’ in the matrix of exports in comparison with other export-oriented countries. A highly concentrated structure has disadvantages. Heavy dependence on a few products renders the country vulnerable to unfavourable national and international developments in those activities. Mauritius is exceptionally vulnerable since over 80 per cent of its manufactured exports come from one product group – clothing. This degree of dependence is higher than other garment-dependent exporters (such as Sri Lanka and Bangladesh) and has not declined over time. The other feature of Mauritian exports is the virtual absence of more complex industrial goods, either sophisticated consumer or producer goods. It has ‘missed the boat’ on the semi-conductor

assembly boom that drove the growth of Singapore and, later, Malaysia, and led to a variety of related electronic and electrical exports.

Compared to South Asian garment exporters, Mauritius is specialised in a different, and generally higher quality, product range (though China is a major competitor in knitwear). However, this is not enough to ensure continued export growth. The activity is open to easy new entry because of low capital and skill requirements, and is more 'footloose' than many other similar activities. One of the main reasons for locating in Mauritius, to exploit MFA quotas (and EU market preferences), is set to disappear in the near future. A large and diverse textile industry can be a major source of competitive advantage for the garment industry, and after the MFA abolition it is likely that the competitive edge will move in favour of countries that have such an industry: China, Indonesia and India. All these countries also have relatively low wages, at least away from the main industrial centres, and large reserves of labour. They pose the main competitive threat to the smaller garment exporters in the region. What is required, and stated endlessly in Mauritius, is for the industry to make a significant jump in quality and design in order to maintain an edge over such low-wage competitors.

In the African context, *relative openness, export orientation and long industrial experience* places Mauritius in a strong position to take the lead in some types of export activity. The fact that East Asian NIEs have used a very similar initial base of exporting to build up dynamic, diverse and increasingly high-technology bases suggests that Mauritius has several options open to it. That it has not been able to exploit these in the past does not mean that it cannot do so in the future.

3 Trade and Industrial Policies

The trade regime in Mauritius, which previously emphasised import substitution and export incentives, is now fairly liberal and probably one of the most open in Africa. Though effective protection is still quite high and variable, its level has fallen since the 1980s, and its incidence (as far as the development of export-oriented activities is concerned) is fairly small. Nevertheless, efforts should be made to minimise this incidence and eliminate remaining distortions in resource allocation. There is a reasonable range of well-administered export promotion policies in place, but they need to be considerably strengthened if the competitive base is to be significantly upgraded. The main agency, MEDIA, undertakes too many functions; its effectiveness is held back by a lack of funds; it offers only a limited range of export marketing and information services with little attention to cost recovery; it does not have an overall export development plan or clear export targets; and the export marketing efforts of SMEs are very weak in relation to large firms.

Mauritius has been less aggressive in using exchange rates as a competitive tool than its main competitors. This may be particularly important for activities such as garments, characterised by small margins and mobile international investors. As far as bureaucratic procedures and regulations are concerned, there have been significant improvements with the abolition of import licensing, the freeing of foreign exchange transactions and streamlining of customs clearance at the port and airport. Nevertheless, enterprises complain about delays in the foreign investment approval process, obtaining refunds on import duties and getting work permits for technical staff.

The most pressing constraints to export growth and upgrading noted by enterprises are high interest rates and cumbersome bureaucratic procedures (particularly in relation to approvals for DBM loans and obtaining refunds on imported inputs). The appreciating exchange rate, policy uncertainty and lack of access to finance were also remarked on by some firms. Infrequent sailing and high sea freight costs were mentioned as the leading constraint to export growth and upgrading on the supply-side, followed closely by shortages of skilled labour and technical manpower; the lack of reliable suppliers of raw materials, parts and components; and inadequate technology institutions.

4 Human Resources

Mauritius has made impressive strides in improving its human resource base, and the 1996-97 budget, of 31 May 1996, extended free primary education to everyone in the country (this gives universal free education from pre-primary up to tertiary level for all those in full-time studies). However, shortages of both general and specific skills will be among the most critical constraints to its long-term export competitiveness. The base of literate and trainable manpower that drove its early export expansion is not adequate to cope with the needs of technologically sophisticated, flexible and design-intensive export activities in the future. There are lags in both the quantity and quality of education at the secondary and particularly at the tertiary levels, and these are most severe for technical subjects; the output of high level technical graduates, in particular, is abysmal for the size of the population. Teacher quality, materials and equipment are often poor, with a mismatch between the skills produced at schools and training institutes and those needed by industry. The reliance on rote-learning holds back the development of the skills and aptitudes needed for modern production. Many modern information technology skills are not provided by the training system.

Enterprise training is also inadequate. While some large firms have full-time training departments, most firms provide only the minimal training needed to achieve production standards. Because of the cost involved and high turnover rates for employees, firms tend not to invest in upgrading the capabilities of their workforce. SMEs spend the least on human capital. The training levy does not provide sufficient incentive to firms to develop the training programmes needed.

Human resource problems are exacerbated by a poor work ethic: productivity is low because of low motivation and weak discipline in EPZ firms, high rates of absenteeism and turnover, poor working conditions and antiquated methods of human resource management. This is a broader problem of improving labour management and relations systems, but it is perhaps as important to long-term success as the narrower ones of education and training

5 Industrial Technology Capabilities and Institutional Support

The manufacturing sector in Mauritius exhibits a strongly dualistic pattern of technological capabilities. On the one hand, there are a few large export-oriented firms with good technological capabilities by world standards: quality management, equipment maintenance and design capabilities. Several large firms have achieved ISO9000 standards. Some have created independent product design capabilities by hiring trained designers and investing in computer-aided design. Such firms also have strong technological linkages with foreign buyers and make use of technical assistance contracts. On the other hand, most SMEs lag in technological terms and constitute a major competitive handicap for industry (see below). They have poor quality management, ad hoc equipment maintenance, rudimentary design capabilities and a low incidence of technology contracts.

The Mauritian system of technology support has several strengths, with several institutions involved in MSTQ, productivity improvement, training, SME support and diffusion. It has been improved in recent years, particularly the Mauritius Standards Bureau and the diffusion system (TDS), as part of a World Bank competitiveness upgrading project. The productivity improvement agency for export firms (EPZDA) is a relatively recent creation, and is doing an excellent job. The SME support agency, SMIDO, is doing useful work, but is inadequate in terms of what is needed to transform SMEs into efficient sub-contractors and make them export-oriented.

The institutional framework as a whole needs to be greatly improved and expanded if it is to play a full role in upgrading competitiveness. The size and resources that existing institutions command are not adequate to the challenges facing them. There are functions that no institution is currently

filling – the most prominent among these is research, development and design. Productivity raising and technical extension for SMEs are being addressed, but not fully. There is no institution capable of formulating comprehensive strategies and delivering the entire package of finance, training, information, extension and marketing support that firms need. The government should strengthen existing institutions greatly and set up new ones where needed to meet the array of needs.

6 Industrial Districts

An economic case can be made for encouraging industrial districts or clusters in Mauritius. In many developed and developing countries, these have been dynamic centres of competitive industrial development. In Mauritius, SMEs, scattered around the island, do not constitute ‘industrial districts’ in terms of network characteristics. They tend to be isolated from each other – there is no division of tasks among them, no exchange of ideas, information, skills or goods, and no long-term relationships of co-operation and trust among entrepreneurs that can lead to specialisation. They do not pool skills, knowledge, services and intermediate goods, and, partly as a consequence, suffer from high costs, risk, credit and marketing problems. In the clothing industry, subcontracting from large to small firms exists, but the latter are mainly firms with simple equipment undertaking low quality activities. There is little of the development of skills, technological capabilities and specialisation that marks industrial districts in more advanced countries.

The government is keen to promote subcontracting, but lacks a coherent strategy for the promotion of industrial clusters. Subcontracting may have been held back by the regulatory framework (in particular the structure of indirect taxes and duties and the duty drawback mechanism), which deters links with non-EPZ firms, and the lack of awareness among firms of the benefits of inter-firm co-operation. This lack of awareness is also related to the virtual absence of industry associations, which generally play a crucial role in fostering linkages and clusters.

7 Foreign Direct Investment

Average annual foreign direct investment (FDI) inflows in Mauritius in the 1990s are high by African standards, but low compared to Asian countries. Mauritian FDI remains highly concentrated in textiles and garments, and is experiencing a downturn at a time when FDI to developing countries is surging. Some of the locational advantages which attracted FDI to Mauritius – cheap, literate, bilingual labour; reasonable labour productivity and industrial discipline; preferential access to EC and US markets; political and macroeconomic stability; a low level of bureaucracy and a market-friendly business environment – have been significantly eroded. Moreover, the country is facing increased competition from lower cost producers including Madagascar, China, Vietnam, Bangladesh, India and Sri Lanka. Foreign investors from Hong Kong and France, who largely drove Mauritian success in textile and garment exports in the 1970s and 1980s, have begun to search for locations elsewhere. About half the foreign-owned firms surveyed indicated that they had begun, or were considering, re-locating to other manufacturing sites in the developing world and Eastern Europe.

Several structural factors explain why Mauritius has been relatively unsuccessful in diversifying and upgrading FDI, including its location, an inadequate supply of industrial skills, a lack of input and component suppliers, the limited technology infrastructure, and inadequate local demand for high technology products. At the same time, there are gaps in the FDI regime and promotion strategies. Investment incentives are not geared to actively targeting industrial sectors or major international investors; the eligibility requirements for investors to qualify for incentives are not clearly specified for some schemes; there are inadequate incentives to promote technological upgrading, increase value-

added, promote linkages with local industries and facilitate research and development. Similarly, there are several negative attributes in the current foreign investment promotion system and strategy in Mauritius: foreign investment approvals are slow by international standards; there are flaws in the new targeted investment promotion strategy which reduce its effectiveness; there is insufficient attention to the expansion of existing MNC affiliates; and there is the absence of new programmes, such as inducing MNCs to establish regional headquarters.

8 EPZ Infrastructure

Mauritius has an efficient and well developed EPZ infrastructure. It was the first African country to have an EPZ programme and, historically, both the public and private sectors have participated in industrial estate provision. In recent years, there have been improvements in EPZ infrastructure, particularly in the areas of the port and telecommunications. The country has a large number of telephone mainlines in operation and international call charges are low by international standards.

However, investments in EPZ infrastructure have lagged behind demand, and some problems are emerging with respect to utilities, industrial estates and other facilities. These include: high costs of raw industrial land and rental charges for factory space in EPZs by international standards; fluctuations in electricity supply and high electricity charges; high water charges and high rates for telephone installation in EPZs, compared to some Asian competitors; and infrequent sailings/ high sea and air freight costs.

9 Policy Recommendations

9a Goals, Activities and Institutional Setting

The goals of the export strategy of Mauritius are to maintain the growth and market shares of products that *already have* a competitive advantage in world markets and to develop *new competitive advantages* in manufacturing and services. Both require expanding existing markets and seeking new ones. Geographical considerations require that attention be paid to neighbouring markets, where Mauritius has several competitive advantages and where export prospects improve as economic liberalisation continues, regional co-operation schemes gain significance and economic growth resumes (albeit at a modest pace).

This report has focused on manufacturing (though some attention has been paid to IT): this is not intended to suggest that other activities are less promising. On the contrary, several are thriving and offer excellent prospects for the future. As far as existing exports are concerned, the predominant activity – *textiles and clothing* – will continue to be central to the export effort and will retain a significant market niche. Many leading firms have already upgraded their quality and technology, though much remains to be done to raise competitiveness elsewhere, especially in SMEs. Considerable effort will be needed to further improve the skill, design and technology base in the industry, promote flexibility and specialisation and strengthen supporting institutions. High wages need not be a barrier to export competitiveness if quality is upgraded, and Mauritius has an edge over most developing countries in achieving such upgrading. What is needed is to maintain this edge.

In the manufacturing sector, the mission believes that the best prospects for future expansion lie, apart from textiles and garments, in **printing and publishing** and **electronics**.

Mauritius has already established a base of good *printing* technology, and firms have upgraded their facilities in recent years. The technology in place is fairly sophisticated and skills have developed to an impressive extent. The idea of attracting firms from East Asia in complex support services like colour separation, typesetting and advertising media is a good one, and the experience of Singapore

and Hong Kong suggests that even with very high wages there is a good chance of attracting significant business to Mauritius.

In *electronics*, the record in Mauritius has been less impressive. At present, the few export-oriented companies consist of electronic watch movement assembly, a pH meter assembly plant, a quality crystal preparation plant, a coil winding plant, assemblers of professional audio equipment and an assembler of photo-voltaic units. While this base is an advantage, there is no support in terms of component manufacturers or even a well-stocked distributor in Mauritius. This raises the costs of breakdown, compounded by the lack of service and maintenance facilities and capabilities.

However, the potential of the industry is immense, and in Asia there continue to be significant new investments in search of low-cost skills and facilities. The following products that may be profitably made in Mauritius, based on its location, capital and skill availability, enterprise size and the possibility of attracting foreign investors include: components for emergency lighting systems; delay lines; security panels; a 'flagship' project such as printed circuit boards. It may be useful, in view of the rapid technological changes in the industry and the dynamism of FDI, to take another look at the activities that Mauritius can get into. The possibilities offered by the African market should not be neglected: in view of recent events, it is also necessary to explore the new opportunities that may have arisen in the region.

As far as *services* are concerned, the export of *IT services* is often mentioned as a potential area for growth. However, it is difficult to see any competitive advantage that Mauritius offers, apart from a linguistic one, in comparison with countries with established software exports like India or the Philippines. While a start has been made in the Informatics Park, it is difficult to see it amounting to much more than a small fringe activity, unless a niche activity (e.g. desktop publishing) can be established as an area of excellence.

While it may be difficult to mount ambitious strategies in this area, it may be useful for Mauritius to launch a new and well-publicised initiative to catch the attention of potential investors. The regional card may be the base of such an initiative: MEDIA notes the possibility of Mauritius becoming a 'hub' for IT operations in the COMESA region. This would require the government to *target the specific skills and infrastructure* needed and to *develop these before other countries* in the region. The Asian example suggests that the investments required may be quite substantial, but a start has already been made to build up IT capabilities and this can be strengthened.

The other promising area of service exports is *consultancy* in the African region. Many of these service exports can be based on Mauritius' own experience of export-led growth, in which it has a lead over all neighbouring countries: liberalising the export sector, setting up EPZs, managing the development of buyer-seller relations, hosting international trade fairs in textiles and garments, streamlining bureaucratic procedures and operating incentive schemes and developing productivity improvement services. Since most other African countries are liberalising their economies and seeking to promote export-oriented manufacturing and service operations, they will seek expertise from other countries that have successfully managed the process. Not only will the advice be more appropriate, Mauritius has a significant advantage in its bilingual capabilities. It may also be able to exploit its membership of the Southern African Development Community (SADC) to develop marketing opportunities for consultancy services.

The experience of privatisation and restructuring of *public utilities and infrastructure* can also provide a valuable base for the export of services. In many Asian and Latin American countries, utility companies have become important investors and earners overseas on the basis of the lead they have established in their home countries. Chilean firms, for instance, are investing in neighbouring countries in power generation and telecommunications, as are Malaysian firms in Asia. Singaporean firms

are aggressive in setting up and managing EPZs. Where capital and skill needs are very large, Mauritian companies can act jointly with firms from other countries.

Finally, there are some prospects for *offshore financial services*. The country's past growth as an OFC has been helped by its stable political climate, a relaxed and open regulatory framework and a well-developed telecommunications system, while its attraction to funds wishing to invest in India derives more from its traditional ethnic links with India and the tax advantages offered by the double taxation agreement. However, with the globalisation of the world economy and the larger role played by private capital flows, Mauritius will face intense competition from established and new OFCs and these traditional advantages may not be sufficient to ensure future success. There are a number of possible policy initiatives for Mauritius: relaxing the regulatory framework for OFCs while maintaining soundness; devising a more aggressive approach to tapping new OFC business and gathering market intelligence; separating the regulatory and promotion functions of MOBAA, placing the former in the Bank of Mauritius; and dealing with skill shortages by investing in relevant education and liberalising work permits. The Government should consider launching a special study of the OFC in order to develop an appropriate competitive strategy.

9b Institutional Steps

The design and implementation of an export development strategy may require institutional changes. The present structure of policy analysis and formulation is dispersed over several ministries and institutions, and lacks a central co-ordinating mechanism. It would be desirable to set up mechanisms to continuously monitor current competitiveness, analyse emerging trends and problems, devise appropriate solutions and implement them.

The recommendations are as follows:

- ❖ Set up a *Mauritius Competitiveness Council* to take charge of all issues pertaining to the maintenance and creation of export capability. This council should include representatives of the ministries and departments concerned with trade, industry, skills, productivity, finance, market intelligence, FDI and infrastructure, and have the authority to design and implement strategies that cut across all the relevant ministries. It is this Council that should formulate the choice of activities to be promoted and supported for future competitiveness.
- ❖ Under this Council, establish a *competitiveness monitoring* unit to continuously collect and analyse data on Mauritian export performance on a comparative basis. The benchmarking of national export performance should provide the basic information on which strategies are formed and adjusted over time.
- ❖ Set up a *technology assessment unit* that relates emerging technologies to the ability of Mauritian industry to keep up and utilise them to best advantage. Such an assessment should take place at the *cluster, industry* and *firm* level, and would form the core of competitiveness strategy. At the more operational level, there is the need for a manufacturing efficiency and response unit which collects information on day-to-day problems and feeds the information to the relevant ministries so that solutions can be devised.
- ❖ Develop a *manufacturing efficiency monitoring and response* capability that studies the productivity, efficiency, flexibility and innovativeness of industry in relation to international benchmarks, identifies problems and develops solutions. This would allow problems to be identified as they arise and address them immediately.

- ❖ *Involve the industrial sector* deeply in the analysis of competitiveness problems and solutions, and in the implementation of those solutions. An institutional mechanism such as monthly meeting of key ministers and heads of enterprises, chaired by the Prime Minister, may be useful to promote such participation on a continuous basis.
- ❖ Link the *technology infrastructure* institutions (MSB, UoM, EPZDA, SMIDO and others that may be set up) to the efficiency programme, ensuring that the private sector is willing to use their services and that they are able to respond effectively.
- ❖ Evaluate the results of these efforts on a continuous basis to ensure that they are efficiently carried out, are cost-effective, and meet the needs of private firms.

9c *Setting Appropriate Trade and Industrial Policies*

- ❖ Persist with a credible, transparent strategy of *import liberalisation* to achieve a low and uniform level of effective protection. Set specific advance targets for phased reductions in import tariffs which will give firms strong signals to restructure. Phase out protection for highly protected activities without any clear economic rationale and support those that can develop into future exports within a relatively short period with supply-side measures to promote rapid restructuring and upgrading.
- ❖ Entrust the task of import liberalisation to a *single government* institution (such as the newly established Ministry of Industry and Commerce) which should draw up a simple, clear programme of future tariff reform. This institution should also maintain an up-to-date information system on import tariffs and other forms of non-tariff protection and develop strong in-house capabilities to carry out inter-temporal effective protection studies at regular intervals. These measures will provide the government with the relevant information to assess progress made in reductions in protection.
- ❖ Pay more attention to *monitoring cross-country behaviour* in exchange rate management and emulate the more aggressive real exchange rate posture witnessed in neighbouring African and Asian competitors. The Bank of Mauritius could take the lead role in this area and, if required, the collaboration of the IMF could be sought.
- ❖ Continue to strengthen the export drive through a significant *enhancement in the role of MEDIA*. An assessment should be undertaken, under the aegis of the Prime Minister's Policy Unit or the Ministry of Finance, to identify strategic institutional restructuring alternatives and carefully evaluate the costs and benefits of each approach. The assessment should explore the possibility of developing an institutional focus on export promotion alone; expanding its financial resources; formulating a mechanism for cost-sharing by recipients and developing commercial services for information and marketing; establishing a dedicated unit to help link SMEs with foreign buyers and large local firms and providing extension services to develop independent marketing capabilities in SMEs.
- ❖ Develop an *overall export development plan* and a system of *export targeting* as well as a monthly meeting between key ministers and the heads of firms to review progress made towards export targets and deal with pressing policy problems. The export planning mechanism could be located in the re-structured MEDIA and MEDIA's corporate plan should be developed in line with the overall national export development plan.

- ❖ Give due consideration to enhancing the *overseas marketing capabilities* of private business associations and attracting MNC service firms (for instance, to base regional operations in Mauritius). The important goal underlying these initiatives is that the effectiveness of MEDIA should be not only enhanced but also to make sure that it does not inadvertently “crowd out” potential private sector providers of export promotion services.
- ❖ *Streamline residual bureaucratic procedures and regulations*, especially those concerning foreign investment approvals and processing of refunds on duty drawbacks. Where possible, a single short form should replace multiple documentation requirements and unnecessary bureaucratic stages should be dispensed with. In this vein, a liberalisation of work permits for technical personnel would facilitate more rapid technology transfer. An appeals procedure should be established to deal with instances where foreign investment approvals are rejected or subject to delays in excess of four weeks (this should include the processing of work permit applications).
- ❖ Undertake a *regular annual survey* of enterprise perceptions of the policy and incentive regime and constraints, along the lines undertaken in this study, and feed the results into the export policy making process. This survey should cover enterprises from different industries, ownership forms, and size classes. The results of this survey would be an important input into the work of the proposed Competitiveness Council mentioned above and the high-level meeting between ministers and the heads of enterprises, chaired by the Prime Minister.

9d *Improving Human Resources*

- ❖ Skill needs and provision must be *monitored and prioritised on a continuous basis*, with effective interaction between employers and training institutions. Skill needs should be assessed by continuous monitoring of international competitors. The setting up of a Manpower Co-ordination and Development Unit in the government in 1992 is a step in the right direction, and it is recommended that its achievements should be examined to date and its role strengthened.
- ❖ Examine carefully the IVTB’s administration of the levy grant scheme and the relevance of its curricula.
- ❖ Consider the need to launch new types of training institutions more *directly linked with, and managed by, industry*.
- ❖ Focus education and training efforts on *particular skills*, such as IT, textile design and consultancy services that may be competitive activities in the near future.
- ❖ Encourage *firm-level training* by information and persuasion and, where desirable, by the setting up of institutions and programmes. These programmes should cover in-house training by firms for their own employees, by large firms for the employees of smaller firms (suppliers and subcontractors), and by industry associations for their members.
- ❖ Improve *information* on and *monitoring* of private sector training. At present there is little information available on this and no systematic measures to promote or improve it.
- ❖ Target SMEs by special information and incentive programmes to recruit better trained labour and to invest in formal training. Their method of skill transmission tends to be confined to apprenticeship systems, where craftsmen teach young workers, largely with little formal education, traditional methods that have been used over time without much change. The government may assist by providing subsidies to SMEs to invest in training and by setting up activity specific training centres.

9e *Enhancing Technological Support*

- v The MSB should establish its accreditation function as soon as possible.
- v Some financial support for smaller enterprises to obtain ISO 9000 certification should be considered. One possibility would be to extend the TDS provision to meet half the costs of the consultancy services needed after the programme ends.
- v The TDS scheme seems to be very effective, and its extension (or making a similar set-up permanent) should be considered. The extent of subsidy involved can be lowered over time as SMEs become more aware of the benefits of using the emerging market for technological services and consultants.
- v Industrial R&D, which is practically nil, needs to be stimulated, and a stronger research culture created among the larger firms by a campaign to raise the consciousness of the benefits of in-house design and development activity. Linkages between large firms and technology support institutions should be strengthened.
- v SMIDO is currently unable to meet the technological needs of SMEs in Mauritius, and the feasibility of setting up Technology Transfer Centres should be considered seriously. This would help SMEs in defining their technological needs and problems (by technology audits), providing them with relevant information on sources of technology, helping them with training, testing, CAD/CAM, equipment repair and maintenance and generally raising their awareness of technological activity. This would draw upon resources at the university and elsewhere in Mauritius, and could soon become self-financing. Such centres could take over several of the functions of SMIDO or be combined with it. The government should strengthen the provision of technological information to help firms learn about sources and prices of technologies along the lines pursued by Korea, Taiwan and Japan, where there are computerised on-line facilities to help enterprises to find and negotiate for new technologies.
- v An institution needs to be set up to conduct R&D in collaboration with and on behalf of manufacturing firms. While the University does some applied research, and EPZDA has the function of conducting industrial R&D, neither is geared to assessing the technology needs of industry and meeting them. A mechanism also has to be set up to stimulate firms, especially SMEs, to contract technological activity to research institutes and the university. The Taiwanese example of research institutions importing new technologies, adapting them and then diffusing them to the smaller enterprises, with a package of finance, training, market and management assistance, is a model that the Mauritian government may follow.
- v There is a need for a Productivity Centre which would conduct, on a larger and more comprehensive scale, the present functions of the EPZDA. Such a Productivity Centre would incorporate many of the functions of the Technology Transfer Centres noted above – the need for having one rather than several bodies needs to be examined. In this context the Minister of Finance has recently announced the intention of setting up a National Productivity Council; this team does not have the information to assess what this Council is to do.
- v Textile and garment design skills need to be developed locally. The design content of export production has to be enhanced over the medium to long term if Mauritian firms are to maintain their upgrading, and a strong local training facility, such as a Textile Design Institute,

would greatly help in achieving this. EPZDA has a long-standing proposal for a Textile Institute which needs to be evaluated and, if found appropriate, acted upon.

- ❖ The government should consider establishing a *textile and garment restructuring* fund to help smaller enterprises to invest in new technologies and skills.
- ❖ Technology diffusion to smaller enterprises would be greatly helped if the *industry associations* concerned were strengthened, both to offer common services to their members and to act as a focal point for identifying and articulating their needs and for organising assistance from official agencies. In Korea, for instance, the small scale industries associations, initially promoted by the government, served such functions extremely effectively and helped policy formulation in the interests of their members.
- ❖ The promotion of *subcontracting* is an important element of the policy to promote SME competitiveness and develop industrial districts. The government should concentrate on raising the skill and technological level of local firms, and provide a pro-active programme of skills, technology and finance. The subcontracting exchange being set up by SMIDO should be promoted strongly. Foreign investors should also be encouraged to invest in diffusing technology locally by promoting subcontractors and suppliers, by providing special incentives to the MNCs related to local content and to programs for helping SMEs, and by investing directly in the upgrading of subcontractor capabilities (along the lines of the Local Industry Upgrading Programme in Singapore).
- ❖ Local public and private research institutes should be encouraged to *link up* with similar institutions in other countries (in particular in India) to exchange research results, materials, methodologies and personnel. The government should encourage the exchange of research personnel between laboratories and enterprises in different countries.

9f *Promoting Industrial Districts*

- ❖ *Promoting the formation of industrial districts and clusters* is of crucial importance to the next stage of quality competitiveness and flexibility in garments and textiles in Mauritius. The SME sector is performing poorly at this time, but can be revitalised if appropriate information, skill and contractual interlinkages are created and exploited.
- ❖ **Provision of credit:** Access to credit is of key importance, especially for the SMEs and for the firms which try to expand and innovate. In Europe, local banks, consortia and co-operative banks have been the main source of credit to industrial districts. Because local banks know the environment well, they are in a better position to assess the personal qualities of the applicant and the prospects of the project. Other local credit initiatives are Consortia and Co-operative banks, in which the owners of firms are all indebted to each other, which creates an atmosphere of trust and reciprocity that affects the provision of loans and their repayment. Mauritius needs to foster localised intermediaries; commercial banks often do not have the branch network to reach local industry, and wherever the network exists there might be little attention to the need of the local small firms.
- ❖ **Training of entrepreneurs and workers:** Firms can play a big role in designing the content of training and in carrying out and monitoring programmes.

- ❖ **Provision of information services:** The provision of market information can help to move producers towards more sophisticated segments of the market. Such services are rarely provided by the public sector alone; there is generally strong support from private institutions, because of the sector specific expertise required and for financial reasons. In Ludhiana (Indian Punjab), the regional government established quality control, research and technology centres, vocational and industrial training centres, and encouraged the formation of sectoral and trade associations, through which local industries represent their interests to the State. In Mauritius, information services should be sector specific and specialise by function (e.g. testing facilities, design, legal stipulations, import and export regulations, technology transfer and so on).
- ❖ **Labour organisation:** The success of industrial districts in Europe is based not on low wages, but on strong but responsible labour unions that contribute to competitive behaviour and innovation. A flexible labour market, backed by a healthy and technologically progressive labour movement, is vital for export-oriented industrial districts in Mauritius.

9g *Increasing Foreign Direct Investment*

- ❖ Establish a *new specialised agency* for foreign investment promotion, as indicated by the Finance Minister. This new agency should be staffed by people with the appropriate private sector experience and offer competitive pay, benefits and training.
- ❖ The new agency should place considerable emphasis on *targeting selected activities and investors*, revamping the current investment promotion strategy by carrying out an investor perception study and developing a pro-active approach to investment promotion. One key element in the new approach should be a regional headquarters (RHQ) programme to attract leading MNCs to set up bases for the African region.
- ❖ This agency should also provide high quality *post-approval investor services*, such as obtaining work permits and various infrastructure facilities.
- ❖ *MEDIA*, which currently undertakes investment as well as trade promotion and industrial estate management, should be transformed into a specialised trade promotion organisation, with its management and development of industrial estates hived off to the private sector.
- ❖ The approval *process must be greatly simplified and streamlined*, reducing the number of stages in the approval process to one, centring on one Foreign Investment Approval Committee. This committee should consist of high-level representatives from a maximum of six ministries, chaired by a senior Cabinet minister, and should meet twice a month. A target two to four weeks should be set for the completion of the investment approval process under normal circumstances. Difficult cases could be referred to a sub-group of the Foreign Investment Approval Committee which would draw on expertise in all areas of government. An appeals procedure should also be established for cases of investors which have been rejected. This should be followed by the abolition of all foreign investment approval processes and a concentration on investment promotion.

9h *Improving the EPZ Infrastructure*

- ❖ Undertake a feasibility study for establishing a *small, national shipping line*. In addition, liberalise the entry of low cost air cargo operators to compete with Air Mauritius and expand the cargo capability of Air Mauritius.

- ❖ Undertake an *assessment of rents* in public and private industrial estates and link increases in rents to changes in the retail price index.
- ❖ Liberalise the entry of *overseas telephone providers*.
- ❖ Develop a *low interest loan scheme* for enterprises to purchase voltage stabilisers and power factor correctors. Establish a consultancy unit within CEB to install such equipment and help consultancy firms to undertake energy audits at competitive rates.

Table 1 Main Recommendations for Competitiveness Strategy

Category/Constraint	Recommendation	Implementing Agency
A. Comparative Advantage		
Need to develop new competitiveness in manufacturing activities	Best prospects lie in textiles and garments, printing and publishing; and electronics.	
Need to develop new competitiveness in new service activities	Best prospects lie in information technology and regionally-oriented consultancy services (e.g. liberalisation of the export sector, setting up EPZs, managing buyer-seller meets, hosting international trade fairs, streamlining bureaucratic procedures and operating incentive schemes, and developing productivity improvement services).	
Need to sustain competitiveness in offshore financial services (OFC)	Some prospects for further growth of offshore financial services. A more pro-active approach is needed to ensure success. Possible policy actions include: relaxing the regulatory framework for OFCs while maintaining soundness; devising a more aggressive approach to tapping new OFC business and gathering market intelligence; separating the regulatory and promotion functions of MOBAA, placing the former in the Bank of Mauritius; and dealing with skill shortages by investing in relevant education and liberalising work permits. A special study of the OFC is needed to develop an appropriate competitive strategy.	
B. Institutional Setting		
Lack of a co-ordinating vision and mechanism	Establish a Mauritius Competitiveness Council to take charge of all issues concerning creation and maintenance of export competitiveness.	Prime Minister's Policy Unit/ Ministry of Finance with assistance from Commonwealth Secretariat
C. Trade and Industrial Policies		
High and variable effective protection and lack of a strategy for future import liberalisation	Persist with import liberalisation to achieve low, uniform effective protection. Entrust import liberalisation to a single ministry which should develop a plan for tariff reduction, set up a data base on import protection measures and undertake effective protection studies	Ministry of Industry and Commerce with assistance from World Bank

Category/Constraint	Recommendation	Implementing Agency
C. Trade and Industrial Policies (cont.)		
Persistence of anti-export bias and weak export drive	Undertake strategic re-appraisal of MEDIA; develop an overall export development plan and system of export targets; and set up a monthly meeting between key ministers and heads of enterprises (chaired by the Prime Minister) to review progress, deal with pressing problems and solicit views on economic policy management. The export planning mechanism could be located in the re-structured MEDIA and MEDIA's corporate plan should be linked to the national export plan.	Prime Minister's Policy Unit/ Ministry of Finance
Appreciating real exchange rate	Adopt a more aggressive approach to exchange rate management	Bank of Mauritius with assistance from IMF
Limited private sector participation in trade promotion	Enhance the capacity of private business associations and attract MNC service firms to set up regional offices in Mauritius	MEDIA/Board of Investment
Delays in FDI approvals, work permits and refunds on duty drawbacks	Streamline all residual bureaucratic procedures, use single forms and single approval stages, and establish an appeals procedure for delays in excess of four weeks.	Prime Minister's Office, Ministry of Labour and Customs
Lack of reliable information on enterprise views about policy regime	Undertake annual survey of enterprises in different export sectors, ownership forms and size classes to monitor the impact of changes of the policy regime. The survey results should be fed into the work of the proposed Competitiveness Council	EPZDA/MEDIA with Commonwealth Secretariat help
D. Human Resources		
Lack of a focal point in skill development	Undertake an appraisal of the work of the Manpower Co-ordination and Development Unit and strengthen its role	Ministry of Education, Science and Technology
Weak administration of IVTB levy grant scheme and lack of focus of curricula	Undertake a re-appraisal of the administration of IVTB levy grant scheme and the curricula. Involve industry in the appraisal exercise.	Ministry of Education, Science and Technology
Lack of intermediate and high level skills in key, potential areas of comparative advantage	Establish degree and diploma courses in IT, design and consultancy services in the University of Mauritius and attract overseas education providers to undertake short, certified courses in Mauritius. Set-up an industry-led training centre for electrical and electronics industries.	Ministry of Education, Science and Technology, University of Mauritius, with assistance from the Penang Skill Development Centre of Malaysia and the Government of Singapore
Limited investments by SMEs in training	Undertake a public information programme to make SMEs aware of skill gaps for competitiveness. Provide subsidised consultancy services for in-plant training in SMEs.	Ministry of Industry and Commerce, SMIDO
Poor work ethic, absenteeism and high labour turnover	Extend current productivity awareness campaigns to industry and employee level. Strongly involve trade union movement in national productivity and competitiveness discussions.	Ministry of Labour, Employers' Organisations and Trade Unions

Category/Constraint	Recommendation	Implementing Agency
E. Technological Support		
MSB lacks accreditation function	Take steps to develop accreditation function in MSB	
Difficulties in SMEs obtaining ISO 9000 certification	Extend TDS provision to meet half the costs of the consultancy services need after the programme runs out	MSB, TDS with assistance from World Bank
Weak technological capabilities in textile and garment SMEs	Establish a textile and garment restructuring fund to help SMEs invest in new technologies and skills	
Lack of technical extension services for SMEs	Consider making the TDS scheme permanent. The amount of subsidy can be lowered over time with increased technological awareness in SMEs. Consider setting up technology transfer centres along the lines of the Irish model	TDS with assistance from World Bank; Northern Ireland Technology Centre
Low level of industrial R&D	Stimulate industrial R&D by tax breaks and an awareness campaign directed towards large firms of benefits of in-house design and development work. Establish a separate institution to conduct R&D for industry	Ministry of Education, Science and Technology, EPZDA
Low industrial productivity	Establish a productivity centre which would incorporate and extend EPZDA	Ministry of Industry and Commerce
Weak design capabilities in textiles and garments	Establish a textile design institute for design and training	Ministry of Industry and Commerce with assistance from the Commonwealth Secretariat
Weak industry associations	Promote development of industry-specific associations	
Lack of subcontracting relations	Raise skills and technologies of local firms, as noted above. Strongly promote the sub-contracting exchange being set up by SMIDO. Adopt Variant of Local Industry Upgrading Programme in Singapore	Ministry of Industry and Commerce with assistance from UNIDO, Government of Singapore
F. Industrial Districts		
Lack of industrial clusters	Attempt to create industrial districts by fostering local credit initiatives such as Consortia and Co-operative banks; launching systematic training schemes of entrepreneurs and workers; providing sector-specific information services; and encouraging a flexible labour market	Ministry of Industry and Commerce, DBM, Bank of Mauritius, Ministry of Labour
G. Foreign Direct Investment		
Lack of incentives for target sectors	Undertake an appraisal of investment incentives focusing on providing some extra financial incentives (e.g. cash grants or equity participation schemes) to flagship MNCs; clarifying the eligibility requirements for investment incentive schemes; developing strong incentives to technological upgrading and local linkages; and creating an information system on investment incentives in competitors.	Ministry of Finance with assistance from the private sector

Category/Constraint	Recommendation	Implementing Agency
G. Foreign Direct Investment cont		
Inadequate institutional focus on investment promotion	Create a specialised agency for foreign investment promotion staffed by people with private sector experience and offer a competitive package. This agency should also provide high quality post-approval services by the incorporation of the One Stop Shop.	Ministry of Finance
Weak inward-investment promotion strategy	New investment promotion agency should give emphasis to targeting selected activities and individual foreign investors, revamp the current investment promotion strategy and develop a pro-active approach to investment promotion.	Ministry of Finance with assistance from World Bank and Commonwealth Secretariat
Lack of a regional headquarters (RHQ) programme for MNCs	Devise a RHQ programme to induce MNC to establish headquarters in Mauritius for the African region, drawing on the Singaporean experience.	Ministry of Finance with assistance from Commonwealth Secretariat
Multi-function investment promotion, trade promotion and industrial estate management agency	Hive off management and development of industrial estates to the private sector and create a specialised trade promotion organisation.	Ministry of Finance
Cumbersome, bureaucratic multi-stage FDI approval process	Immediately create a single stage FDI approval process centring on one Foreign Investment Approval Committee with high level representation. Set a target of 2-4 weeks for normal FDI approvals. This should be followed by the abolition of all foreign investment approval processes and a concentration on investment promotion.	Ministry of Industry and Commerce
H. EPZ Infrastructure		
Infrequent sailings/High freight costs	Undertake a feasibility study for establishing a small, national shipping line. Liberalise the entry of low cost air cargo operators to compete with Air Mauritius. Expand Air Mauritius cargo capability.	Ministry of Trade and Shipping/ Air Mauritius
High rental cost for factory space in EPZs	Undertake an assessment of rents in public and private EPZs and link increases to changes in the retail price index	DBM
High rates for telephone installation in EPZs	Liberalise entry of overseas telephone service providers	Ministry of Energy
Fluctuations in electricity supply and high electricity charges	Develop a low interest loan scheme for enterprises to purchase voltage stabilisers and power factor correctors. Set up a consultancy unit within the CEB to install such equipment and help firms undertake energy audits at competitive rates	DBM, CEB