INTERNATIONAL MIGRATION PAPERS

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Options for Migration Policies in the Long Term Development of Mauritius

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Foreword

The ILO’s International Migration Programme publishes two working paper series (*International Migration Papers* and *Perspectives on Labour Migration*) with the goal of making quickly available to ILO tripartite social partners, and the general public, current research on global migration trends, conditions of employment of migrants, and the impact of State policies on migration and the treatment of migrants. Their main objective is to contribute to an informed debate on how best to manage labour migration, taking into account the shared concerns of countries of origin and employment for generating full and productive employment of their nationals, while at the same time respecting the basic rights of individual migrant workers and members of their families.

This case of Mauritius, which had no original population-apart from the dodo-and was populated entirely by migrants between the 18th and 20th century, is of special interest. In spite of its lack of natural resources, and earlier fears of Malthusian over-population, it has become a model of successful multicultural development in a democratic context.

Following a period of extreme dependence on one crop and one export (sugar) till the 1960s, the Mauritian economy has, since the 1970's diversified into export processing of imported inputs, particularly in textiles, as well as in tourism. A more recent development is that of the offshore business sector. With trade liberalisation threatening the preferential arrangements regarding textiles and sugar, and the likelihood of a "green ceiling" eventually constraining tourism growth, Mauritius has decided to transform itself into a knowledge economy, with information technology paying a leading role.

The paper by Philippe Hein documents the new immigration which has taken place since the 1990's, particularly consisting of process workers in manufacturing and to a lesser extent in construction. It characterizes the main features of the current emigration policies, as they have gradually evolved in response to employer perceived needs. The paper is innovative in that it contains projections and possible scenarios for employment for the next 20 years. On this basis, and taking into account the experience of other countries, such as Singapore, it makes certain suggestions on the role of emigration in the future development of the country. Policies examined and evaluated concern possible adjustments to improve the management of the great majority of temporary guest workers. It also envisages actions needed should it be decided that it is in the country's national interest to attract highly skilled persons and technopreneurs to dynamise the burgeoning cyber island economy.

Philippe Hein's paper was presented at a national seminar on migrant workers in Mauritius (November 2004), with the assistance of ILO. This tripartite seminar prepared its own conclusions and recommendations. It is a measure of the quality and relevance of this paper that many of the suggestions it contained were retained and adapted by participants to form part of the recommended follow-up.

This paper is a very useful contribution towards implementing the resolution adopted by consensus at the 2004 International Labour Conference, calling on the ILO to develop a non binding multilateral framework for a rights based approach to migration. A key element in this multilateral framework is the development of long term policies on migration based on labour market needs and demographic trends.

This paper may also be of interest for other countries, particularly small island developing states (SIDS), that may wish to formulate or review their migration policies.

Geneva, November 2004

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Abbreviations

BOI	Board of Investment.
BPML	Business Parks of Mauritius Limited
BPO	Business Process Outsourcing
CSO	Central Statistical Office
EPZ	Export Processing Zone
FSPA	Financial Services Promotion Agency
HSP	Highly Skilled Persons
ICT	Information and Communication Technology
IRS	Integrated Resort Scheme
JEC	Joint Economic Council (private sector coordinatining body)
MCCI	Mauritius Chamber of Commerce and Industry
MEF	Mauritius Employers Federation
NCB	National Computer Board
PRS	Permanent Residence Scheme
SAPES	Scheme for Attracting Professionals for Emerging Sectors

1. Introduction

Leaving aside the immigration patterns of the colonial period, the employment of foreign workers is a recent phenomenon in Mauritius. Significant entry of foreign workers started in 1990.

However over recent years, two developments have occurred:

- The number of foreign workers has increased regularly to reach 18,200 in 2003, mostly as process workers in the manufacturing sector. This happened over a period when unemployment was steadily increasing.
- Foreign workers have, in the early 2000's come to national, and even international, attention through numerous and widely publicized industrial conflicts, and public demonstrations of dissatisfaction involving specific groups of workers, particularly from China, India and Bangladesh.

The second development related to the conditions of recruitment and fair treatment of foreign workers has been the subject of considerable attention and measures by the Mauritius authorities. These were necessary for their own sake and also to avoid the harmful effect on the economy of potential boycotts by some trading partners and human rights organizations, who might have alleged that Mauritius products were being produced by "exploited" foreign labour.

The first development – the increasing number of number of foreign workers (co-existing alongside a relatively high level of unemployment) has created a new situation confronting modern Mauritius. Will recourse to such temporary guest workers become a permanent feature? Is there a need to attract a significant number of highly qualified foreign specialists and entrepreneurs to give a boost to the "new economy", on which Mauritius is counting for its future job creation? Policy makers are beginning to address the long term implications of these issues, in the light of the expected changes in the economic structure of the Mauritian economy and society.

This paper is intended to stimulate discussion of the future of labour migration in Mauritius, taking into account the possible path to development and job creation that the country might take. It recalls the recent employment and migration patterns, then examines possible development scenarios for Mauritius over the next 20 years and their expected implication for employment and migration. In this light, it presents some policy options and suggestions.

2. Trends in income, employment and migration (1990-2004)

2.1. GDP and employment

The recent evolution of the Mauritius economy by sectors is presented in Annex 1 table A. Over the period 1992-2003 GDP at constant (1992) prices has increased by 73.3%, or an average of some 5.1% per year. There have been fluctuations but in no year was a negative growth rate recorded. It may be noted that during the same period employment increased by 13.1 %, or 1.1% per year (437 900 in 1992 and 495 100 in 2003 – see Table 1). In other words, whereas output per worker was Rs 98,846 in 1992, by 2003 each worker on average produced Rs151, 492 (constant prices). Or, to put it differently, in 1992 a production level of

Rs100,000 created on average one job, whereas in 2003 the same production level (in real terms) could only create less than two-thirds of one job, on average.

Annex 1, Table B, indicates the sources of growth by sector. All sectors have more or less consistently made a positive contribution year after year. The main exceptions are (i) sugar, which, under the influence of climatic conditions, had a negative impact in bad years (1993, 1994 and particularly 1999 and 2002) - compensated by recovery in good ones (notably 2000), and (ii) the EPZ, which, after years of expansion, has started to contract since 2002.

2.2. Labour force, employment and unemployment

In the 1960s, 70s and early 80s, unemployment was massive, reaching perhaps 30% at the time of Independence in 1968. In 1983, more than 10 years after the starting of the Export Processing Zone, unemployment stood at 19.7%. Under these circumstances, the employment of foreign workers was unthinkable, beyond a few individual cases of specialized managerial and technical personnel. The recruitment of foreign workers started to be noticeable in 1990 (Table 1), at a time when there were extremely low rates of unemployment: 2.8% and 2.6% in 1990 and 1991, respectively. Such low levels may be regarded mostly as of the "frictional" type, so that Mauritius was then in an overall labour shortage situation.

The present situation is not one of overall labour shortage, but rather of qualitative mismatch between the demand for workers and the domestic supply.

Table 1. Labour Force, employment and unemployment, 1983-2003 (thousands)

	Labour force			Employment	Unemployment*	
Year	Mauritian	Foreign	Total	Number	Number	Rate (%)
1983			365.1	293.1	72.0	19.7
1984			374.5	308.5	66.0	17.6
1985			383.5	324.8	58.7	15.3
1986			393.0	350.0	43.0	10.9
1987			402.5	378.5	24.0	6.0
1988			411.5	395.5	16.0	3.9
1989			421.4	406.0	15.4	3.6
1990	432.0	1.0	433.0	420.8	12.2	2.8
1991	439.2	2.2	441.4	429.4	12.0	2.7
1992	448.8	4.1	452.9	437.9	15.0	3.3
1993	457.0	6.9	463.9	445.9	18.0	3.9
1994	467.5	8.3	475.8	454.8	21.0	4.5
1995	475.0	9.8	484.8	460.5	24.3	5.1
1996	482.3	8.2	490.5	462.6	27.9	5.8
1997	490.8	8.6	499.4	467.2	32.2	6.6
1998	499.4	10.0	509.4	475.0	34.4	6.9
1999	506.6	12.9	519.5	480.5	39.0	7.7
2000	514.0	14.6	528.6	483.6	45.0	8.8
2001	522.0	16.5	538.5	490.8	47.7	9.1
2002	523.9	17.0	540.9	490.1	50.8	9.7
2003	531.3	18.2	549.5	495.1	54.4	10.2

Source: Central Statistical Office. * As % of Mauritius labour force.

2.3. Interpretation of unemployment data

The official Mauritius unemployment data are the subject of varying interpretations and even controversy. The method of calculation is currently under review[1]. The consensus seems to be that the available figures overestimate the extent, or at least the severity, of unemployment. Much hinges on the difficult question of the meaning of "participation", which involves being "currently available to work"– a term defined by ILO as referring to "willingness to work for wage on locally prevailing terms". A University of Mauritius Survey (2001) concluded that among those out of employment, "a substantial proportion … are probably in a sort of semi active state only willing to work if the right opportunity arises" (p. 48). Among first jobseekers "a majority are probably not desperate for a job" (p. 23) and more than 90% are being supported by their families (p. 27). Another report similarly found that "There are, among the unemployed, some who are looking for specific jobs or jobs meeting certain conditions, others who are looking for part-time jobs… (Under) the ILO criterion of availability, some of these persons might not qualify as unemployed" (Kalasopatan, p. 70).

The Employment Information Centre figures for job seekers figures are particularly unreliable as indicators of unemployment, since they include many who have casual jobs and others who are already in formal employment. The latter accounts for about 25% according to the sample in the University of Mauritius 2001 Survey.

In fact, the Minister of Labour, Industrial Relations and Employment recently stated that "Mathematically, there are no unemployed – if you mean real unemployed persons. Anyone who is looking for an immediate job can find one. But Mauritians must not be choosy! There are 2,135 jobs available right now, but one cannot find persons who are interested" (*L'Express*, 4 August 2004).

As regards the social implications of unemployment it has been pointed out that "the current unemployment situation is very different from that prevailing in the early eighties. The percentage of households without a single person employed is now marginal" (Kalasopatan, p. 70).

2.4. Foreign Workers

a) Origin of workers

China and India are by far the main countries of origin (representing almost 86% of the total in 2003), but there is a great variety of nationalities (e.g. 43 Mongolians were admitted in 2000).

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[1] This follows the recommendations of Kalasopatan (2003) and of Ralf Hussmanns, Chief, Employment and Wages Statistics, ILO (Mission Report, May 2004). These reports contain a comprehensive discussion of the technical issues involved.

Table 2. Foreign workers by country of origin* (2000-2003)

	2000	2001	2002	2003
China	8,343	12,408	13,486	10,788
India	2,843	4,290	4,977	6,945
Madagascar	397	540	561	660
France**	513	571	649	605
Bangladesh	521	984	599	539
Sri Lanka	404	370	388	500
Others	880	966	1,077	926
Total	13,901	20,129	21,737	20,963

Source: Ministry of Labour, Industrial Relations and Employment; based on number of work permits issued.
* Data differs from that of CSO. Ministry of Labour data are based on work permits issued in a given year, whereas CSO records actual workers employed, many of whom have had their work permit issued in a prior year. In addition CSO data may not capture foreign workers is small establishments.
** Includes Reunion.

b) Sectoral distribution

Table 3 provides information on the sectors that are employing migrant workers. By far the main employing sector (over 78% of the total) is manufacturing, including the textile sector of the EPZ. Construction is the second sector making use of foreign workers, with just over 10% of the total. The emerging sectors (business services and financial intermediation) employ a very limited number of expatriates, generally in professional posts.

Table 3. Foreign workers by country of origin and by sector (2003)

Country	Hotel and Restaurants	Construction	Financial Intermediation	Business Services (Incl. IT)	Manufacturing	Other	Total
China	86	505	-	19	9941	237	10788
India	127	1468	38	138	4617	557	6945
Madagascar	-	23	1	7	552	77	660
Bangladesh	-	4	-	-	534	1	539
Sri Lanka	-	-	8	2	472	18	500
France	90	28	25	101	110	251	605
Others	146	92	30	117	215	326	926
Total	449	2120	102	384	16441	1467	20963
%	*2.1*	*10.1*	*0.5*	*1.8*	*78.4*	*7.1*	*100.0*

Source: Ministry of Labour, Industrial Relations and Employment, based on work permits issued.

c) Skill Levels

According to Mauritius practice, foreign workers are categorized under the following headings: “skilled workers”, supervisory, and managerial. Another category – technical – is sometimes used. This distinction is important since, as discussed later, there are implications for the conditions under which foreign workers are admitted. As can be seen from Table 4, the great majority of foreign workers are in the so-called “skilled category” (93%), 2% are supervisory and 5% management.

Table 4. Work Permits by skill level (2000-2003)

	2000	2001	2002	2003	2000-2003 (%)
Management	537	1630	1371	1084	*5*
Supervisory	372	1010	258	259	*2*
Skilled	14622	30828	19984	19624	*93*
Total	15531	33468	21613	20967	*100*

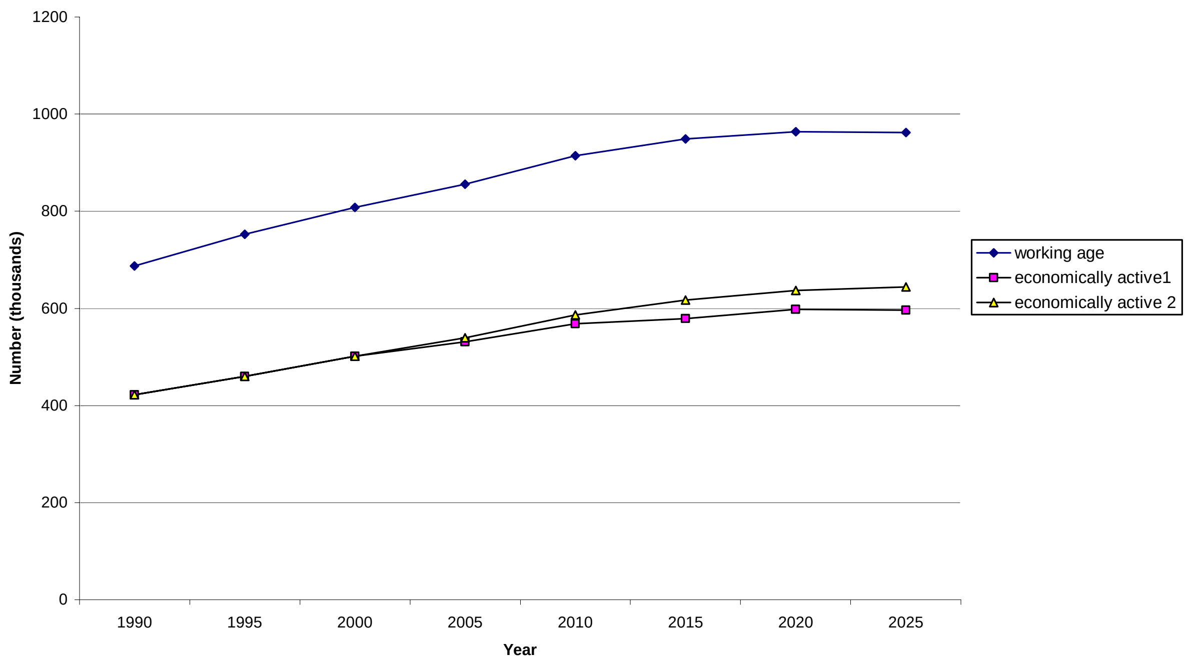
Source: Statistical Review on Employment, Ministry of Training, Skills Development, Employment and Productivity.

3. Future employment scenarios (2004-2025)

3.1. Labour supply

The Mauritius labour force is estimated at 531,300 in 2003. The past evolution and projections over the next 20 years are presented in Figure 1.

Figure 1: Working age population and labour force (1990-2025)



Source: UN Population Projections, 2000. Participation rates calculated from ILO LABPROJ

These projections include two scenarios for the economically active population: “economically active 1” and “economically active 2”. The “economically active1” estimate was done by applying the present participation rates for men and women to the UN data on population of working age (15-64 years). They show that the labour force would be 568,000 in 2010, 598,000 in 2020, and levelling down to 596,000 by 2025.

The present male participation rate (86% in 2000) is at a level comparable to most advanced and newly industrialized countries – even slightly higher. It is assumed that this will stay constant over time. There will probably be a decrease in the rate for the younger age group as they undertake longer studies (compulsory schooling to age 16). On the other hand, one may expect the older group of over 60's to be more active.

For women, participation rates have risen steadily since the early 70's. From 22% in 1950-1970 to 29% in 1980, 37% in 1990 and 41% in 2000. But these rates are particularly low by international standards. Leaving aside developed countries, which often have activity rates for women in 2000 above 70% (Canada, Denmark), developing countries like Indonesia, Philippines, Senegal and Zimbabwe all have percentages above 50% in 2000. (ILO, *Estimates and projection data bases*-LABPROJ-2004). Whether or not one is in favour of increased women participation in the labour market, past trends and international comparisons make the "economically active 2" projection a more realistic predictor. It assumes an increase in the female activity rate of 2% per 5-year period leading to a rate of 51% by 2025. Past increases in employment – related to the EPZ – involved an increase in women's participation. Similarly, a greater desire and ability on their part to contribute to the future proposed expansion into ICT and the knowledge economy is likely. Among potential Highly Skilled Persons (HSPs) the female spouses of Mauritians may constitute a positive resource.

Consequently, under the "economically active 2" scenario the Mauritius labour force is expected to increase form 531,300 in 2003 to 586,000 in 2010, reaching 644,000 in 2025 (Table 5, line A).

3.2. Employment scenarios

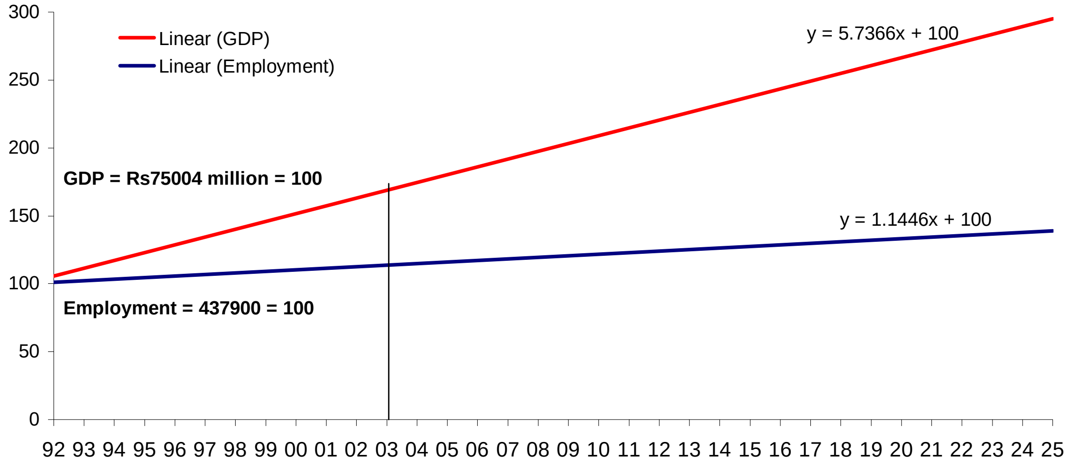
No data are available on projected or desired growth rates in the future, nor on the expected sectoral composition of such growth and of the corresponding employment pattern. In the absence of any such information, and in order to focus discussion, three different scenarios, highlighting the employment dimension, are presented in this paper.

a) Scenario 1 (continuation of past trends)

Scenario 1 is a linear projection made on the basis of past trends, and is presented graphically in Figure 2.

Under a linear projection of GDP and output per worker, employment would reach 528,000 in 2010, 553,000 in 2015, 578,000 in 2020 and 603,000 in 2025. Assuming that the number of foreign workers is maintained at 20,000, this projection would imply a rate of unemployment of over 13% in 2010 and 2015, falling below 10% in 2020 and 2025. (Without foreign workers unemployment would mathematically fall by a few percentage points – 9.9% in 2010 –, but it is probable in practice that the absence of the foreign workers might decrease-rather than increase-employment of Mauritians.) In view of the current and expected transformation of the structure of the Mauritius economy, there is no reason to believe that the future will be a mechanical linear projection of past trends. In any case this scenario is not considered desirable in view of the implied increase in unemployment and it is not explored in detail here.

Figure 2. GNP and Employment projections (2004-2025) based on past trends



Source: CSO for 1992-2003; GDP data reproduced in Annex I A.

b) Scenario 2 (desirable scenario)

A second scenario has therefore been developed, which is considered to be closer to what the Mauritius authorities would wish to happen. Table 5 presents the overall employment picture till 2025 under this "desirable" scenario. It assumes that the unemployment rate is brought down to 5%, and that consequently the number of jobs needed for Mauritians would be 557,000, 586,000, 605,000 and 612,000, for 2010, 2015, 2020 and 2025, respectively (Line C). This scenario also assumes that the number of foreign workers would stay constant at 20,000.

Table 5. Estimates of employment creation needs 2010-2025 ("desirable" scenario) (thousands)

		2003	2010	2015	2020	2025
A.	Mauritius labour force (estimates after 2003)	531.3	586	617	637	644
B.	Unemployed Mauritians (assumed at 5% of A after 2010)	54.4	29	31	32	32
C.	Employment for Mauritians (A-B)	476.9	557	586	605	612
D.	Foreign workers	18.2	20	20	20	20
E.	Total employed (C+D) (employment needed after 2003)	495.1	577	606	625	632
F.	Additional employment needed		82	29	19	7

Sources: Data for 2003, CSO; For future dates, labour force estimates are based on UN Population Projections for the age group 15 to 64 applying the current participation rate for men and assuming a gradual increase in the participation rate of women (increasing from 41 per cent in 2000 to 51 percent by 2025).

This scenario is based on what is "needed" or desirable, and is on the optimistic side. It assumes that, in spite of the expected decline of certain traditional activities, the economy would be able to create some 82,000 additional jobs by 2010 – a significant challenge – since it involves a higher level of job creation than would be the case if current linear trends (Scenario 1) were continued. This is particularly the case for the period up to 2010 when 82,000 new jobs would need to be created. After 2010, the needed rate of employment creation slows down: 29,000 between 2010 and 2015, falling down to 19,000 and 7,000 in the succeeding 5-year periods. (Line F). It is of course not difficult to envisage other sub-scenarios. For instance, if an unemployment rate of 10% is regarded as socially sustainable, and if the number of foreign workers is to brought down to 10,000, the number of jobs needed in the economy in future would be correspondingly reduced. This desirable scenario is the one which is explored in some detail in section 3.3 below, and in particular in Table 6.

c) Scenario 3 (bleak scenario)

A third scenario (bleak scenario) – involving high unemployment (15%), with outward migration as a palliative, is presented in Table 7 below.

3.3. Demand for manpower under Scenario 2

Assuming the "desirable" scenario (Scenario 2 above), in what sector and in what occupations could these jobs be?

As already noted, no quantified forecasts or projections are available on the likely sectoral evolution of the national product – on which the corresponding composition of employment could be derived, taking into account productivity gains.[2] However, in order to focus discussion, a very rough attempt is made in Table 6 to provide a possible (desirable) employment picture by ISIC (International Standard Industrial Classification) category for the years 2010, 2015, 2020 and 2025. This Table is merely illustrative, and no scientific value should be attached to it. No doubt others will be able to undertake this kind of exercise on a more solid and systematic basis. For instance, this might be done by the Human Resource Development Council, which has just published its Strategic Plan (September 2004), indicating, as its first objective, the preparation of a national Human Resources Development Plan.[3]

a) Sectoral Prospects

This Table tries to reflect the assessments and statements of future policy on the orientation of the economy by leaders in Government and the private sector, as discussed below. Any plausible scenario would need to include the hypothesis that traditional sectors like sugar and labour-intensive textile, the driving forces of the past, will almost certainly continue to shed jobs, and that the main thrust of job creation in the coming years will be in services, particularly in the areas of ICT and the knowledge economy in general.

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[2] An exception is the 5-year forecast made in 2001 by the Task Force on E-Education and Training on the requirements of IT personnel. These were estimated at 10,000 IT professionals, 3,000 specialists and between 22,000 and 39,000 support staff by 2006.

[3] An exercise of this kind may also be done also by the Ministry of Education, as is the case in France under the 3E cell (Education, Economy, Employment). See "Prospective emploi-formation 2015", dossiers *Insertion, Education et Société,* July 2004.

Table 6. Employment by industrial group (2001-2003, projections for 2010-2025) under a desirable scenario

Industrial group	2001	2002	2003	2010	2015	2020	2025
Agriculture, hunting, forestry & fishing	54.3	46.9	46.4	40	35	32	28
Sugar cane	*(28.1)*	*(21.6)*	*(19.9)*	*(15)*	*(12)*	*(10)*	*(8)*
Non - Sugar cane	*(26.2)*	*(25.3)*	*(26.5)*	*(25)*	*(23)*	*(22)*	*(20)*
Mining & quarrying	1.3	1.3	0.3	1	1	1	1
Manufacturing	143.5	139.5	134.4	130	128	123	119
Sugar	*(3.2)*	*(3.1)*	*(2.2)*	*(1.5)*	*(1)*	*(1)*	*(1)*
EPZ	*(91.0)*	*(85.7)*	*(80.0)*	*(74.5)*	*(72)*	*(67)*	*(63)*
Non - Sugar, Non - EPZ	*(49.3)*	*(50.7)*	*(52.2)*	*(54)*	*(55)*	*(55)*	*(55)*
Electricity, gas and water supply	3.0	3.1	3.0	4	5	5	5
Construction	43.5	44.1	45.8	48	50	52	54
Wholesale & retail trade; repair of motor vehicles, motorcycles, personal and household goods	65.1	67.4	70.8	75	78	81	84
Hotels & restaurants	24.2	25.4	26.5	33	35	37	39
Transport, storage & communications	31.6	33.4	34.3	38	41	43	44
Financial intermediation	7.5	7.5	7.9	10	12	14	16
Real estate, renting and business activities	14.3	14.3	14.6	76	93	103	103
Public administration and defence; compulsory social security	36.2	38.2	39.2	40	40	40	40
Education	23.3	24.3	25.8	32	35	38	40
Health & social work	12.3	12.7	13.4	16	18	20	22
Other community, social and personal service activities and private households with employed persons	30.7	32.0	32.7	34	35	36	37
Total	490.8	490.1	495.1	577	606	625	632

Source: CSO for 2001-3. Total employment projected derived from Table 5, line E. which assumes 5% unemployment and 20,000 foreign workers.

New Activities, ICT and the knowledge economy. Since the 1990's many leaders, and in particular Prime Minister (now President) Sir Aneerod Jugnauth, have had the vision of transforming Mauritius into an information society. A typical recent formulation is as follows: "The ambition of this Government is to make of Mauritius a cyber island and a knowledge hub. We want the ICT industry to develop into a leading sector, a fifth pillar of the economy that will generate higher value-added activities and provide more remunerative employment". (Paul Bérenger, then Deputy Prime Minister, opening statement at INFOTECH in 2001, repeated on several occasions).

The website of the Ministry of Information Technology and Telecommunications reads:

> "Mauritius is now poised to become a cyber island and to serve as an info-communications hub in the region. …. It is Government's declared policy to make ICT the fifth pillar of the economy alongside sugar, textiles, financial services and tourism."

The private sector, for its part, prefers to talk of "clusters" rather than sectors, and the Joint Economic Council (JEC) Task Force (2001) which reported on the competitive challenges facing Mauritius envisaged four new clusters: the knowledge cluster, the logistics and services cluster, the environment cluster and the pharmacology sector. To which, in various subsequent formulations, the JEC has added the sea food hub, and "the language hub" (JEC Chairman Arif Currimjee quoted in *Le Mauricien*, 9 August 2004).

It is not easy to operationally reflect these visions and objectives in the ISIC Classification, which is the one used in Mauritius and internationally. But, it is clear that much of the activities envisaged would fall under ISIC Category: K – "Real estate, renting and business activities", which comprises activities such as 722 - Software consultancy and supply, 723 - Data processing, 724 - Data base activities, 729 - Other computer related activities, 741. Legal, accounting, book-keeping and auditing activities; 742 - Architectural, engineering and other technical activities (unstats.un.org/unsd/cr/registry). This is why for the purposes of Table 6 a major leap forward in employment is indicated in the "Real estate, renting and business activities" line. Employment in this category would need to increase from some 16,000 in 2003 to about 76,000 in 2010. This great jump would be needed during the critical period 2004-2010, when Mauritius would probably need to consider the inputs of foreign Highly Skilled Persons while its citizens are being trained. After this major leap, "only" 93,000 jobs (17,000 more) would be needed in 2015, levelling to 103,000 in 2020 and 2025.

These job creation requirement figures for 2004-2010 are very high by Mauritius standards, if compared for instance with the 2,260 jobs in IT and Business Process Outsourcing as at June 2004, being persons involved mostly in Call Centres, BPO, and Software Development (Board of Investment, *Statistical Analysis of ITES-BPO Companies*, 2004). But by international standards, 100,000 jobs by 2025 would still remain considerably below the present employment in the two leading IT regions: Bangalore and Silicon Valley. Bangalore employs 160,000 people in the technology sector. IT accounts for 100,000 of these jobs with the rest in BPO and call centres. Ms Shankaralinge Gowda, secretary of IT for the state government of Karnataka, indicated that the number would exceed 200,000 in 2004-2005. The latest figures (July 2004) from California's Employment Development Department estimate the number of technology workers in Silicon Valley – Santa Clara county – at 175,100, out of a total employment of 874,400 in Santa Clara. These 175,100 workers are employed in computer design and related services, telecoms, ISPs, data processing and hosting and computer and electronic production ("Bangalore to topple Silicon Valley from top tech spot", Andy McCue, July 28 2004, silicon.com/research/specialreports/offshoring).

Not all the jobs in this ISIC category K would be for Highly Skilled Persons (HSPs) and knowledge workers[4]. On the other hand, occupations for HSPs will be increasingly available in all sectors of the economy, with particularly high proportions expected in Financial Intermediation, Education, and Health."[5] As the Deputy Secretary General of the Mauritius

[4] It was reported that there were 150 vacancies (unfilled) for cleaners in the Ebène cybercity (*Le Mauricien*, 4 August 2004). Some workers in basic call centres and middle-skilled persons, who do not require more than HSC level (high school).

[5] "The definition of "knowledge workers" is diverse. Some consider that knowledge workers are a group of more elite workers who are highly intelligent and who already posses considerable knowledge and who, most

Chamber of Commerce and Industry pointed out, “it is important to differentiate between identifying ICT as a development cluster and application of ICT to achieve greater efficiency in the process of production of goods and services” (“ICT sector, a new perspective for economic development”, *L’Express,* 8 September 2004).

Sugar and agriculture. There is a consensus that there will be a continuation of the fall in agricultural employment – notably in sugar cane. Under a worse-case scenario, the loss of the preferential sugar prices may lead to a near-collapse of the sugar industry. However, it is assumed that adjustments will occur over a period, and that new initiatives (e.g. ethanol, energy from bagasse, confectionery) will come on stream, as well a certain amount of agricultural diversification.

Hotels and Restaurants. There are a number of tourist-related projects in the pipeline. Some additional jobs are expected to be created, but this sector “is not capable of creating as many jobs as was generated by the EPZ in the late 80s and early 90s.” (JEC (2001), p.5). The Vision 2020 Report had estimated that total capacity could be increased only to a maximum of 9,000 rooms (by 2020), because of the 'green ceiling'. Tourism Satellite Accounts are not available in Mauritius, but in most countries these show significant spill over effects. Consequently, tourism related jobs may come from a wide range of ancillary services and activities, including inland and eco-tourism, many of which will not come under the “Hotels and Restaurant” category, but in other sectors (Transport, trade, etc…).

Textile and the EPZ. The EPZ and textile sector is in the middle of “readjustment”. To survive in a context of full global liberalisation of this sector, the EPZ textile sector will have to move to higher productivity operations. Even if the level of output and exports is maintained, the number of jobs is expected to decline.

Local manufacturing. Although some new “manufacturing” jobs may be lost though improved productivity and trade liberalisation, more enterprises might become internationally competitive, and new ones created. One may hope for at least maintaining the number of jobs.

Finance and Offshore. This is regarded as an emerging sector and is expected to continue to expand, with more valued added activities, rather than merely relying on double-taxation treaties. However, in the context of the Financial Action Task Force (FATF) of OECD, offshore activities may come under closer scrutiny, even to the point where there may be international pressure to force some of them to close down.

Public Administration. This scenario assumes that public sector employment would not increase (productivity gains, outsourcing). “The civil service cannot create more employment – if anything it is likely to shed jobs” (JEC, p.5). However, a future Government might consider itself as an employer of the last resort, and decide to create “artificial” jobs in the public sector, including some sort of “relief work”.

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importantly, have skills associated with the identification of knowledge that is relevant, can access that knowledge, and who can share it effectively with others. It is also suggested that that a knowledge worker turns data and information into meaningful knowledge that can be made productive, and that this is effected by sharing ‘through mutual interaction and collaboration’. In fact it has been suggested that one important characteristic of an effective knowledge worker is a ‘generosity’ to share knowledge with others” (Australian flexible Training framework, Discussion paper on *Contemporary models for professional Development in the Knowledge Era*, www.flexiblelearning.net.au, Professional Development for the Future Project, by Professor John Henry and Dr. Peter Smith, Research Institute for Professional and Vocational Education and Training, Deakin University, 2003).

Education and health sector. These sectors are expected to create some new jobs, including for HSPs. This would be in line with the current Government plans to allow private Universities (knowledge hub) and for the creation of a “High Tech Medicine Hub”.

Construction, trade, transport, storage and communication. Employment in these sectors is likely to follow the growth pattern in the economy as a whole and make a positive contribution. The Freeport and the sea food hub, foreseen by the JEC as a logistical platform rather than fishing activities proper, might provide the dynamics to create some new jobs.

b) Estimate of the number of knowledge workers

Of the jobs in the economy what proportion are expected to be knowledge workers? It is difficult to give an answer to this question, not least because there is no agreed and precise definition of what is a knowledge worker. However, if it is considered that, in 2010, 70% of the employment in the emerging sectors (Business services, finance) will be knowledge workers, that the percentage would be 30% in education and health, and 10% in all other sectors, the number of knowledge workers would need to be around 120,000 in 2010. This number would probably rise steadily with increased expansion of these knowledge-intensive sectors, and as the percentage of knowledge workers in all sectors increased. We could be talking of 140,000 knowledge workers in 2015, 160,000 in 2020 and 190,000 in 2025. In that year, some 30% of the total workforce would then be knowledge workers. If the expression “transforming Mauritius into a knowledge economy” has any meaning, this percentage is surely the order of magnitude that policy makers have in mind.

To conclude, without a significant increase in the number of jobs in the economy, and in particular a very spectacular increase in new economy jobs, of the order of magnitude mentioned above, there is a significant risk of massive unemployment, decreases in income, increases in poverty and social instability. Without very energetic and determined action, combined with a favourable international environment, a bleak scenario such as that presented in Table 7 below cannot be excluded.

4. Matching supply and demand

It is desirable for any country to try to develop activities that meet the characteristics of its population of working age. To a great extent Mauritius was able to do so when the EPZ was started in 1971, creating demand for unskilled, but trainable, labour who were prepared to work for relatively low wages. However, given the restricted options presently available to Mauritius in the global economy, the country needs to make efforts to adapt the quality and characteristics of the workforce to the needs of the job market, itself largely determined by the requirements of international markets in goods and services.

4.1. Praiseworthy efforts under way

The approach consisting of trying to adapt the labour force to the requirements of the economy is one which is well anchored in Mauritian tradition. Past achievements in this regard include the founding of the College of Agriculture 80 years ago, the development of many vocationally - oriented courses at the University of Mauritius since the 1970s and the activities of the Industrial and Vocational Training Board, created in 1988.

Improvements in the process are constantly under review as evidenced by the passing of the Human Resource Development Act in 2003 which includes among its objectives “to provide the necessary human resource thrust for the successful transformation of the economy of the country into a Knowledge Economy” and provides for a HRD Council – a joint Government/private sector body – as one of its important instruments. One of this Council’s functions is “to reduce the mismatch between demand and supply of human resources”.

These efforts, as well as those of other institutions such as the Tertiary Education Commission, the National Productivity and Competitiveness Council (NPCC) are to be commended – and are mutually reinforcing. In fact, they are so complementary that there is much overlapping and there might be a case for some rationalization among the various institutions involved.

As regards Information and Communication Technology (ICT), in 2001 Government set up an Inter-Ministerial Committee under the Chairmanship of the Prime Minister with the aim of “converting Mauritius into a Cyber-Island so as to harness the enormous potential of communication technologies to the developmental needs of the country.” One of the three Task Forces of this Committee is on E-Education and E-Training has been engaged *inter alia* in assessing the future manpower requirements and training needs having regard to ICT and the new economy generally.

Concerning the lower end of the job market, the process workers in manufacturing and construction, many efforts are being made to enable or motivate Mauritian job seekers to take up the vacancies now being filled by the foreign guest workers. Several measures have being taken, and others suggested to strengthen the employability of the workforce. These include the re-skilling of the non-skilled unemployed, along the lines of the Singapore CREST programme, as well as a suggestion to increase the in-house training grants. [See for instance MEF (2004).] The Chairman of the IVTB and of the Human Resource Development Council also envisages, besides the provision of basic education, knowledge and skills, “the need to invest heavily in attitude training…and this must start at the lowest level.” (Dan Bundhoo, “Training: Expectations and Needs of Employers”, *Enjeux-Business Magazine,* October 2004, p. 32).

It is also recognized that more attention needs to be paid to the informal sector in this context. Many of those who will be losing jobs, for instance in agriculture and textiles, are persons over 40 who may not be trainable for employment elsewhere in the formal economy. They, as well as some younger less educated new entrants in the labour market, may not be able to find a place in the new “knowledge sector”.

Developing entrepreneurship. Government and business leaders have realised that training per se will not be sufficient to create jobs-particularly in the activities of the New Economy. Going beyond the traditional support to small business (SMIDO), Government has mandated the National Computer Board (NCB) to set up an Incubator to promote entrepreneurship development in ICT. This Incubator Centre came into operation in January 2003, and it has already housed 13 incubatees. In 2004, the Deputy Prime Minister and Minister of Finance announced further measures in the same direction:

"As we encourage democratisation, we must imperatively foster the entrepreneurship culture." Several measures are foreseen in this regard, such as the setting up of a Support To Entrepreneurs Programme (STEP), including the Young Entrepreneurs Scheme (YES), and the creation of a panel of Mentors will advise and give further support on the implementation of the projects. (Budget Speech 2004-2005).

This is fully in line with the thinking in the business community. For instance, the MEF Memorandum on the 2004-2005 Budget concentrated on HRD and innovation, and made a number of proposals on enterprise development, including the replication of the NCB incubator scheme.

However, there is perhaps an equivocation as to whether these projects have as their objective the important task of helping the less skilled to survive in changing times, or whether they aim at "producing" what we may call Highly Skilled Persons (HSPs). (The term HSP is used in this paper to encompass highly skilled ICT persons, Knowledge Workers in general, as well as entrepreneurs, particularly technopreneurs.)

4.2. Will Mauritius succeed in producing the required HSPs in quality and quantity?

The matching of supply and demand in a labour market is a notoriously difficult exercise. In countries like the UK, even for traditional professions such as medicine and nursing, planning and training have gone badly wrong in underestimating manpower requirements. In fact, over the past few years, almost no country anticipated the demand for IT specialists and knowledge workers.

There are several reasons – most of them structural – why it may not be possible for Mauritius to create domestically a sufficient supply of HSPs of the type and quantity needed to meet the ambitious objective of transforming the country into a knowledge economy, and of creating and manning the significant number of new knowledge-related jobs required, particularly in the immediate future (2004-2010).

a) Starting from a relatively low level

As compared to the competition, Mauritius is constrained by the fact that it is starting from a relatively low level of general basic education. This cannot be changed overnight. For example, the gross enrolment in secondary schools, though increasing, remains modest: it has moved from 50 % in 1993 to 66% in 2003 (CSO, *Digest of Education Statistics*). A large proportion of those enrolled do not reach School Certificate standard. Less than 17% of Mauritians between 19 and 24 are following University courses in Mauritius and overseas (Dr. Raj Luchmeah, Director TEC, *L'Express*, 14 August 2003).

An illustration of the limitations with which Mauritius is faced in trying to become a knowledge-based economy is provided by the latest Progress Report (2004) of the Task Force on E-Education and E-Training. After noting that "Enrolment in IT or IT-related courses has registered a significant increase between September 2001 and September 2002, which represents an increase of 141% in the one-year period", and taking into account the enrolment in respect of IT in institutions overseas, it concluded that "The projected output for the period up to 2005, ... consists of a total of 305 IT specialists (Postgraduates) and 3,611 IT

Professionals (Diploma/Graduates) representing only 10% and 36% respectively of the projected manpower requirement by 2006. **It is, therefore, highly unlikely that the targets of 3,000 IT specialists and 10,000 IT professionals will be met by the said period”** (para. 37) (Emphasis added).

Vice-Chancellor Goolam Mohamedbhai of the University of Mauritius is similarly prudent: “One cannot … move too quickly. We must go little by little … A big problem at the University of Mauritius and in other Universities is that one does not find qualified (teaching) staff, particularly in IT and management.” (“Quelle Université pour demain?”, *Enjeux-Business Magazine*, October 2004, p.17).

b) Uncertainty on content and method of training

Developing workers for the “Knowledge economy” however goes beyond the training of IT specialists, or those destined to be employed in the “IT sector”. The Mauritius Cyber city has itself identified the following activities:

- Software development
- Multimedia activities
- Web-site creation
- Internet applications
- 3D Animation
- Graphical design
- IT Services
- Back office operations
- Telemarketing/Call centers
- Data capture and treatment
- Invoicing services
- Financial or administrative operations related to accounting
- Financial reporting
- Credit/Debit card services
- Treatment of cheques
- Treatment of taxes
- Transcription services (medical and legal)
- Document management
- Data backup
- Database management
- Hosting of web-sites and databases
- Network and systems management
- Treatment of reclamations
- Development of platforms of E-trade

The above is obviously not an exhaustive list. Many of the functions and knowledge-based activities that will be on stream in ten or twenty years are not yet known or named.

Consequently – and unsurprisingly – the methodology to “produce” such knowledge workers is not well known – and will constantly change with technology. The best current textbooks on the subject of “knowledge management” are particularly modest on this issue:

“There is a diversity of practices ……and the identification of 'best practice' in knowledge management is extremely difficult.” (*Managing Knowledge Workers*, P.B. Beaumont and L.C. Hunter, Charted Institute of Personnel and Development, 2002).

Similarly, Dr. Yogesh Malhotra, the famous “Knowledge Architect”, wrote a cautionary article on “When Best [Practices] Becomes Worst”, *Momentum: the Quality Magazine of Australasia*, Quality Society of Australasia, NSW (Australia, 2002).

c) Limitations in entrepreneurship

In fact, the conditions for producing and utilizing knowledge workers are not a question of the persons concerned merely acquiring subject-matter expertise, problem-solving competency and communication skills. It is essential to provide an environment where such persons can operate and flourish. Professor Joseph Kessels, of the Netherlands, talks about the need to have “creative turmoil”, and even of providing “affection” (Paper presented the (UK) Institute of Personnel and Development's HRD 2000 conference on Knowledge Management, April 2000.) In the same vein, one of Malotra’s recent books for UNESCO discusses knowledge work taking place in “hyper turbulent organizational environments”.

Even if Mauritius was, in a super-human effort, to train the large number of ICT specialists needed, and hire skilled technicians from overseas, most of them could not set-up their own business. They would need to be employed and provided with the environment of highly flexible, adaptable and creative organisations.

The efforts being put in place for the development of an enterprise culture, praiseworthy as they are, are unlikely to produce quickly the type of local technopreneurs urgently needed. As an example, in Singapore, there are currently 38 incubation centres, including 4 foreign ones: India Centre, German Centre, Korean Venture Acceleration Centre and Japanese Business Support Centre, and plans to create many more (www.mti.gov.sg/public).

Mauritius has a good tradition of successful local businesses and a smattering of long-established multinationals. The business community will certainly help by providing “mentors” to burgeoning entrepreneurs, but this will be most useful in creating micro-enterprises in particular for the lesser skilled. A few established firms have already diversified into call-centres and BPO, in cooperation with foreign partners. However, it may be found that this is not sufficient to provide the necessary leadership in cyber-business and other parts of the knowledge economy to enable these activities to move forward as quickly as needed.

In fact it is nowadays recognized that the distinction between entrepreneur and knowledge worker is getting increasingly blurred. Regardless of the industry or organization an individual is working in, he or she is expected to act more and more as an internal entrepreneur, or *intrapreneur*. Given the increased relevance of the knowledge value chain, one can anticipate that most individuals in knowledge-based organizations would be acting as *knowledge intrapreneurs* – a term which is probably more appropriate than 'knowledge worker’.

d) Some will emigrate

As happens in any open society, some Mauritian HSPs will chose to live abroad, including a significant proportion who do not return after their studies. The “brain drain” from this country is not new and it may not have much affected the development process so far, but there is no reason to believe it will diminish. The best policies will not lead to retaining in Mauritius those HSPs who want to work in areas such as cancer research, nuclear physics, or aircraft design. Even some HSPs engaged in say, finance, insurance, manufacturing, leisure management or health may prefer to seek wider horizons, at least for a certain portion of their careers.

To conclude, while no effort should be spared to reinforce the present training and enterprise development initiatives, it is necessary to face up to the probability that Mauritius may not be able – under the current implementation rhythm – to meet domestically its very ambitious- but necessary – targets of job creation in the knowledge economy in terms of quantity and quality of highly skilled workers, intrapreneurs and entrepreneurs. The critical period is between now and 2010. After that date, a certain momentum will hopefully have been created, the needed increase in job creation will be less and the training and HRD schemes will have had time to bear fruit.

4.3. Attracting foreign talents (HSPs) as a possible solution

What can be done to remedy this situation?

Mauritius is of course not the first country to have faced this kind of problem. A large number of countries have initiated major internal training and education programmes for HSPs, and in particular ICT personnel for which there is unfulfilled demand.

Many countries starting from much higher educational levels and a stronger base of enterprise culture than Mauritius, such as UK, Ireland, Germany and Singapore, have had to supplement their training programmes by having recourse to immigration programmes for HSPs, often of the “fast-track” variety. Even Silicon Valley, the ICT heartland in the US, has become dependent on Indian and Chinese software engineers. One-third of new IT start-up companies in California are now run by immigrants (“Rich countries woo highly skilled migrants”, Steve Schifferes, *BBC website*, 24 March 2004).

In Mauritius itself, the desirability of this type of solution has been flagged for some time. Thus, the Ministry of Training, Skills Development and Productivity Report (2001) envisages foreign expertise, at least as a temporary measure: “Resorting to foreign expertise in the Financial Services Sector is, for the time being, a stepping stone to success. Likewise, we will require professionals in the Information Technology Sector to set up our cybercities” (p. 59). A more forceful formulation has been put forward by Jean Claude de l’Estrac, Director of one of the leading newspapers, himself a former Minister, who has advocated a “new wave of immigration” of HSPs.

The argument is stated as follows: “We are truly blocked, short of ideas and projects, exhausted, like our declining industries. We need a new wave of immigration. In the past we needed hands, now we need brains”. “The first cause of our economic degenerateness is that there are too few entrepreneurs and no management to support the newcomers”. It concludes with a call for highly skilled migrants from India, Singapore, Hong Kong, South Africa and Europe. “This country can easily welcome 50,000 immigrants over five years” (Editorials in *L’Express*, 1 January 2002; 16 November 2003).

The case for this kind of argument rests on the presumption that the widely quoted finding of the German Federal Government that "The hiring of each foreign IT specialist results in the creation of two to three new jobs for German workers" (see for instance, www.ficci.com/ficciimage/88888888_470/press.doc) has validity in other countries. This basic reasoning has been accepted by the Mauritian authorities. Going beyond the earlier schemes to attract foreigners in their capacity as investors by offering permanent residence (and even naturalization) a new policy was initiated in 2002: the *Scheme to Attract*

Professionals for Emerging Sectors (SAPES). SAPES, instituted in August 2002, under the Investment Promotion Act, aims at attracting non-citizen professionals with talent, expertise and skills in emerging sectors to come, work and live in Mauritius. The sectors covered under SAPES are:

- Information and Communication Technology;
- Financial Services; and
- Any other sector as may be approved by the Board of Investment.

The incentives under SAPES include:

- Possibility of setting-up an office or practice in Mauritius;
- 3 years work and residence permit to both the professional and his spouse;
- Possibility for permanent residence in Mauritius;
- Exempt from payment of duties and taxes on household and personal effects imported;
- Possibility to acquire an immovable property as personal residence.

However, it would seem that SAPES, while constituting a bold new initiative with potentially significant impacts, is not widely known and advertised, nor is it integrated into mainstream immigration policy.

4.4. Emigration as a possible solution

Another "solution" to assist in providing jobs for the labour force is to arrange and promote jobs abroad. This may be undertaken under the Mode 4 modality of GATS: "movement of natural persons", or by emigration proper. Mauritius does not have definite policy on outward migration or on Mauritians working abroad. Data on emigration and the diaspora are fragmentary. A discussion of the implications of developing a policy in this regard would be beyond the scope of this paper. But, if the worse fears about the future of the economy are realized, and job creation is lagging behind, the emigration "solution" would merit consideration[6].

A bleak scenario (Scenario 3) would consist of a situation where the jobs created were only barely sufficient to compensate the losses in jobs in the traditional sectors. As illustrated in Table 7, one could imagine that this could lead to unemployment reaching 15% of the labour force, a drastic reduction in the number of foreign workers, and a possible recourse to significant emigration as a palliative (Line C.2). Under this scenario the social consequences

[6] As an illustration, Indonesia – a country with more than two million nationals working overseas (including an estimated one million who are illegal) – is gearing up – as Philippines is doing – to overproduce nurses. It is estimated that in the next 20 years developed countries like the United States, Britain and other European states would need up to 2 million nurses (*Jakarta Post*, 30 September 2004). For a full menu of foreign employment policy instruments and measures, see M. Abella, *Sending workers abroad: A manual for low and middle-income countries*, ILO, Geneva, 1997.

may be mitigated by enabling the "unemployed" to engage in informal activities – as in fact is already the case to some extent presently.

Table 7. Bleak Scenario with high unemployment and emigration (In thousands)

	2003*	2010	2015	2020	2025
A. Mauritian Labour Force	531.3	586	617	637	644
B. Unemployed Mauritians (15% of A, after 2003)	54.4	87	93	96	97
C. Employment of Mauritians -Total (A-B)	476.9	499	524	541	547
C.1 (domestic)	476.9	495	506	509	514
C.2 (overseas)	n.a	4	18	32	33
D. Foreign Workers	18.2	5	1	1	1
E. Total Employment in Mauritius (C.1+D)	495.1	500	505	510	515

*Actual.

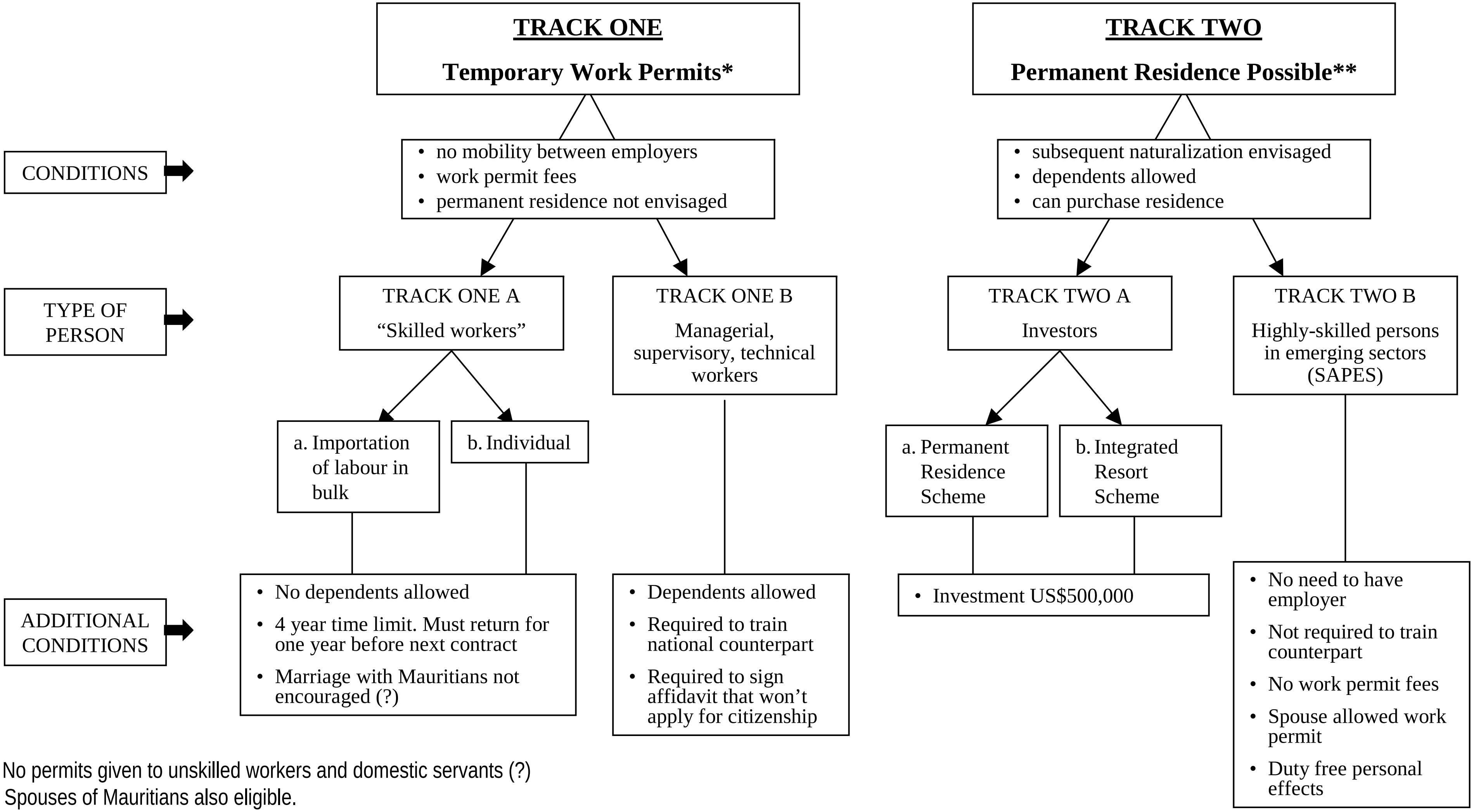
5. Current immigration policies

5.1. Characterization of present policies

There has been no comprehensive official high-level policy statement or White Paper on overall immigration policy by government. Nor has immigration been the subject of attention at a policy body like the National Economic and Social Council, or at discussions between Government and the JEC.

However, much official information is provided by the Department of Defence and Home Affairs concerning Residence Permits, by the Guidelines for the issue of Work Permits – last revision 16 April 2004 –, by the regulations under the Investment Promotion Act. There are also detailed statements of legislation, procedures and practices in the Report on Foreign Workers by the Ministry of Training, Skills Development and Productivity (2001) and the ILO Case Study on Migration Law and Practice, by Herbert Jouan (2003). On this basis, it is possible to characterize the main current policies as follows:

Figure 3. Currently available immigration tracks



* No permits given to unskilled workers and domestic servants (?)
** Spouses of Mauritians also eligible.

a) Track One: The mainstream temporary migration approach

This is the conventional track implemented with the assistance of the Employment Service and the Work Permit Committee, which applies to the vast majority of cases. The system is based on the pure guest worker approach and is entirely employer-driven. Foreign workers are issued permits upon application of employers when the authorities are satisfied that no suitable local applicants are available. The workers are expected to return to their country of origin upon termination of their contract. Mobility among enterprises is not permitted, except under very exceptional circumstances. Settlement is not envisaged. Foreign workers are regarded as a temporary expedient. If it is considered that there is a continuing need for foreigners, the foreign persons needed are expected to rotate. In line with this rotating approach, most foreign workers do not qualify for membership of the National Pension Fund.

This track may be divided into 2 separate sub-tracks

Track One A: The great majority of foreign workers, the so-called “skilled workers”, are not entitled to be accompanied by dependents. Their contract and employment conditions (if they earn less than Rs. 20,000 a month) are subject to scrutiny by the authorities for conformity with the applicable laws and good practices. In particular it is ensured that the employer provides a guarantee to pay for repatriation.

Track One B: Foreign workers admitted under 3 other categories

- supervisory,
- technical, and
- management

Workers under these categories are allowed some more flexibility. Their contract and employment conditions (if they earn more than Rs 20,000 a month) are not subject to scrutiny. They may be accompanied by dependents and may stay for longer duration than the “skilled workers”. But they are expected to train local counterparts and eventually return to their country. When counterparts are not ready to take over, “if the Ministry insists on departure of expatriate managers on grounds of long stay, the latter are replaced by other foreign managers” (Ministry of Training Skills Development and Productivity, 2001, p.30).

It may be noted that foreign workers for 3-D jobs (Dirty, Dangerous, Difficult) are not accepted, according to official policy. Whereas migrants from developing countries worldwide tend to concentrate in jobs at the bottom of the employment ladder, including in the so-called 3-D jobs, the lowest type of employment categories for which permits are issued in Mauritius, according to official terminology, are the production workers in manufacturing and in construction, labelled as “skilled workers”. However, a large number of these “skilled” workers comprise persons with job titles such as knitting operators, painters, “metal sorters”, “fish cutters” or “Apprentice machinists, Woodworking”, whose duties do not appear to be far removed from the lower end of the employment ladder. These workers are typically appreciated for their motivation to work, low absenteeism, eagerness to do overtime, and availability for night work, rather than for their intrinsic level of skill. Indeed, some of them have received almost no training themselves, and contrary to what would be the case for truly skilled workers, there is no requirement that they should train local counterparts. The term “semi-skilled” (or even “unskilled” in some cases) might be a more appropriate description of the status of many of them. It is also noticeable that no permits are normally issued for domestic servants, housekeepers and nannies[7].

b) Track Two: Attracting migrants permanently

Distinct from Track One mainstream policies of rotating temporary workers, Mauritius has schemes which allow for permanent residence.

Two of them (Track Two A) concern investors, rather than workers. These are the Permanent Residence Scheme (PRS) and the Integrated Resort Scheme (IRS). PRS which targets investors of more than 500,000 USD, was introduced in January 2000 under the Immigration (Permanent Resident Status) Regulations 2000, and was subsequently replaced by the Investment Promotion (Permanent Residence Scheme) Regulations of 2002. The IRS, for its part, is basically a project for the construction and sale of luxury villas to foreigners. This acquisition of a villa allows the foreigner and his/her family to reside in Mauritius as long as they hold the property. Investors with permanent residence status, many presumably highly skilled or innovative, may take up employment or be self-employed.

For foreign HSPs, in their capacity as workers and entrepreneurs – rather than investors –, a separate track (Track Two B) is available. This consists in SAPES, instituted in 2002, with the main features described in section 4 above. In sharp contrast with Track One approach, persons admitted under SAPES do not need to be sponsored by an employer before they arrive, and they may set-up their own office or practice in Mauritius; their spouses are delivered a work permit, they and their dependents are offered the possibility for permanent residence in Mauritius, they are exempt from payment of duties and taxes on household and personal effects imported, and may acquire an immovable property as a personal residence. Also, unlike, the professionals admitted under Track One B, there is no requirement that they should train Mauritians to succeed them.

It may be noted that, whereas SAPES is clearly an important immigration initiative concerning certain types of foreign “workers”, it was instituted under the Investment Promotion Act, and comes under the purview of the BOI. However, SAPES, not being presently well known and advertised, is better characterized as an incipient policy, which is not yet integrated in the national immigration and human resource development framework.

5.2. Evaluation of immigration policy

a) Effectiveness of border control

In many areas (such as international or even domestic prices, demand for export products, technological developments, international standards and norms) outcomes in small countries are mostly determined by external factors on which they have but little influence. But this is not the case of migration into Mauritius, where the national authorities can have a determining influence on outcomes.

[7] This is a category that occupies the majority of female migrants in several European countries (France, Greece, Italy, Spain) and large numbers of migrants in middle – and high – income states, including Singapore, Malaysia and the Middle East. In Mauritius, a few “Cooks, Domestic” are occasionally issued permits (*Employment Service Monthly Bulletin*, January 2004, p.10).

In most continental or large countries national borders are generally porous and difficult to police effectively and there is considerable "inevitable migration", irrespective of what the national policy or rhetoric is. Policy makers often have their hand forced by the presence of "illegal" or "irregular" migration, asylum seekers or guest workers whose status often have to be regularized ex-post[8].

Mauritius, like many relatively remote small islands, is different.[9] A few cases of temporary workers overstaying or others coming in under tourist visas are known to occur, but Mauritius must be one of the countries where incoming international arrivals of persons – and their subsequent departure – is most efficiently monitored and controlled, allowing for effective exercise of this aspect of national sovereignty.

However, this advantage concerns controlling those who want to come in, and the overstayers. For attracting, retaining and motivating desirable HSPs, Mauritius is facing global competition, and only has indirect influence on outcomes, as evidenced by the modest results achieved so far on the various schemes purporting to attract permanent residents.

b) Outcomes of the current policies

It can credibly be argued that the mainstream policies have well served the Mauritian economy and society over the past few years.

In fact, migration into Mauritius has so far been moderate by international standards (representing about 1.8% of the population in 2003). This is well below the world wide figure of 2.9%. In many countries, migrants account for more than 5% of the population (including Botswana, Angola, and much of Europe), and in several more than 10% (including France, Sweden, Cote d'Ivoire, Gabon and Libya) (UN Population Division: *International Migration 2002*, New York, 2002). In Singapore[10], there are currently about 500,000 work permit holders (unskilled or semi-skilled), including more than 140,000 foreign domestic workers. Employment pass holders (comprising those with degrees, professional qualifications or specialist skills and who command monthly salaries of more than S$2500) number about

[8] This is the case in most developed countries. In fact, in the EU it has been stated that one reason for having temporary labour migration schemes is to reduce illegal immigration, since "immigration cannot be banned. Illegal immigration will occur" (Council for Europe, 1996, p. 42). In the Russian Federation it was estimated in 2003 that there were some 5 million foreigners whose status was unclear. Similarly, in the majority of continental developing countries, cases of refugees, displaced persons, nomadic patterns, and unofficial border crossings are the norm rather than the exception. In South Africa and Thailand their number was estimated at half a million, and 1 million, respectively (ILO, 2004, p.119-120.)

[9] However, many Caribbean islands suffer from the arrival of illegal "boat people", in particular from Haiti. Similarly, in Singapore, in spite of its "islandness", illegal immigrants pose major problems. Their number is reported to be of the order of 350,000 (statistics on foreign talent in Singapore, by Hari Nasution, Harimau.org, June 29, 2001), and several thousands are arrested annually. Government has indicated particularly tough measures. "Employers found guilty of employing overstayers or illegal immigrants face a jail term of not less than six months … and shall also be liable to a fine of up to $6,000. In addition, the offenders will be caned if they employ more than five immigration offenders" (MOM Press Release «Singapore Illegal Employment Situation 2001», 2002).

[10] This paper makes numerous references to Singapore – whose economic performance and policies over the years have often inspired Mauritius. In the field of the attraction of foreign talent, Singapore has been ranked no. 1 in attracting top-flight global talent in a first-ever study (2003) of economies with a population of under 20 million, conducted by the Swiss-based International Institute for Management Development (IMD) – ahead of Luxembourg, Switzerland, Ireland and Hong Kong.

70,000. If illegal immigrants are included, the total number probably reaches almost one million, which represents some 24% of the Singapore population of 4.2 million.

The present migration pattern is entirely employer driven, but there has been no outcry from trade unions or other potential critics that the current policy is unsuitable. It is generally acknowledged that migrants have taken up jobs which Mauritians are unable – or unwilling – to perform. Foreign construction workers have made possible the timely completion of infrastructure projects, and the claim that several EPZ factories would have had to close down without guest workers is not seriously disputed.

There is an implicit policy, or at least a general intention, that the number of foreign "skilled" workers should be restrained, if not reduced, and that, as far as possible, they should be replaced by Mauritian nationals. But achieving this has proven elusive and in fact the number of such workers has increased. One reason for employers continuing to want to employ foreign workers is the unwillingness of Mauritians to take up certain jobs, as documented in the University of Mauritius 2001 Survey. One of the core findings of this Survey is that by far the main reason for job seekers not wanting to work in the EPZ was the lack of job security (more than 71% of first job seekers gave this reason). Perhaps more study is needed to probe this attitude, since it seems to imply that training or re-skilling may not be able to address the issue adequately. In fact, this natural yearning for job security may cause intractable problems, since in a globalizing world with constantly changing technological and market conditions it is unlikely that Mauritius – or any country for that matter – will be in a position to provide a substantial number of jobs with a high degree of security.

As already noted, a significant problem concerning "skilled" guest workers has been one of difficult industrial relations and misunderstandings, which has attracted negative publicity inside the country and overseas. Energetic measures of prevention, control and inspection have been put in place in recent years, with the creation of a Special Expatriate Squad in 1999 – and its subsequent re-enforcement – and the issuing of Guidelines by the MEF and the MEPZA and a Code of Conduct for Human Resource Management Practices by the Ministry of Labour (April 2004). As a result, the situation has improved, and the negative publicity has abated. However, it is true that the number of work stoppages and complaints involving foreign workers is far more than for nationals. These difficulties are not unexpected, since guest workers, being attached ("tethered") to a single sponsoring employer, it is not possible for them, in case they have a legitimate grievance, to "vote with their feet" and seek a more congenial job with another employer. Data from the Special Expatriate Squad show that in 2000 there were 15 stoppages, 7 in 2001, 10 in 2002, 40 in 2003 and 27 from January to July 2004, but the stoppages in 2003 and 2004 are reported as affecting only a few workers. The number of complaints, for its part, has increased: 132 in 2002, 178 in 2003 and already 181 as at October 2004. However, this increase is convincingly attributed by the Ministry of Labour to the fact that the reinforced Special Expatriate Squad is more attentive to complaints, visits workers at night in their dormitories, and uses translators.

The strict application of the mainstream policy of "rotating guest workers" has avoided many of the problems related to the guest worker programmes that have occurred in Western Europe and elsewhere.[11] Mauritius has none of the problems such as unemployment rates

[11] Most European guest workers were initially admitted for one year to fill a particular job with one employer. These could be renewed at the request of the employer. But rights were expanded with each successive renewal. In Germany, for instance, after five years of lawful work or residence, the Gastarbeiter received an unrestricted work permit that conferred an immigration status similar to that of Permanent Resident Aliens in the United

among migrants, and integration of second generation migrants, that are much discussed in international literature on migration.

As for Track Two policies (allowing permanent residence) it may be said they have had only modest success – perhaps because they had modest objectives. For instance from January 2000 to December 2001, only three foreign investors had availed themselves of the Permanent Residence Scheme. There appears to be more activity under the revised Scheme [Investment Promotion (Permanent Residence Scheme) Regulations of 2002]: 12 applications were received in 2002, 17 in 2003 and 14 from January to mid-June 2004 (Prime Minister's reply to parliamentary question B/541, 22 June 2004).

Regarding SAPES, it is reported that there were very few applicants and that only one person was approved between its inception in 2002 and October 2004. So far there has not been perceived urgency in giving a boost to SAPES.

To conclude, the above suggests that, at least as concerns the policies for the majority of foreign workers in the "skilled category", the current policies and mechanisms are being constantly improved and not be in need of major overhaul. This being said, it is always possible to improve policies, clarify some aspects, fine tune implementation mechanisms and better communicate. However, in view of the expected major changes in the economic structure of Mauritius, as outlined earlier in this paper, what might have been appropriate yesterday may not be what is best for tomorrow. Some suggestions and options are provided below.

6. Future policy options and suggestions

6.1. Formulating immigration policy in an overall framework and as a component of development policy

A first suggestion would be to present immigration policy in a single unified framework, giving at the same time a rationale of its role in development policy.

Immigration policies have evolved pragmatically over time to meet problems as and when they arose. Several Ministries and institutions are involved – as they should be – but no clear comprehensive statement is available.

It is in the interest of Mauritius to provide to all concerned, including present foreign workers, potential candidate HSPs, head-hunters, recruitment agents, employers, potential investors, Mauritius diplomatic missions overseas, foreign governments and the public in general with a clear, consistent and reasoned account of how Mauritius wants to handle its affairs as regards employment of foreign persons.

One single presentation – to be updated at appropriate intervals – could explain the different "Tracks", the criteria used (e.g. level of qualification, earning power) to determine the type of

States. A "settled" foreigner could freely change employers or occupations, and was not deportable if unemployed. Naturalized citizenship could – and still can – be obtained after 8 to 10 years (Source: Philip Martin, p. 63). "Return migration was not popular…Only 5 out of 10 Yugoslavs and 3 out of 10 Turks returned (p. 29). This gradual drifting or slippage is what has led to the "path dependency": future decisions are constrained by past decisions, something no one should wish for Mauritius.

foreign persons eligible under each track, and the conditions and procedures pertaining to each one.

A possible overall presentation structure could be based on Figure 3 above.

For a very comprehensive migration policy one could envisage other possible categories: for instance inter-corporate transferees, seasonal workers, contract (project-related) workers, trainees, au pairs, student employment, etc, as well as workers admitted under mode 4 of GATS. Different policies and regulations may apply to each of these groups.

Singapore, which has a long experience in these matters, has recently updated its policy. This has led to the introduction of an intermediate track (S Pass) for middle level personnel, between the Employment Passes (equivalent to the Mauritius SAPES) and the "semiskilled and unskilled" workers (equivalent to the Mauritius "skilled") who require "Work Permits". Mauritius need not follow the Singapore terminology, or classification, but the differentiation between the various tracks by salary level may be of particular interest. The Singapore presentation of its emigration policy may be accessed on the Ministry of Manpower website (www.mom.gov.sg). It is noticeable, that the presentation starts with "professionals, managers, executives, specialists and entrepreneurs", whereas the more numerous category "unskilled and semi-skilled" is mentioned last.

A related point is that in communicating immigration policy consideration should be given to using language that is more promotional and development oriented. Reference to the legislation cannot be avoided, and these have titles which are rather "negative": the Non-Citizen (Employment Restriction) Act; the Deportation Act. But it is possible in Guidelines and other policy statements to highlight developmental and promotional aspects, and de-emphasize the (necessary) administrative controls and protective measures. Since human resources are recognized as a valuable and essential input in development, this should be reflected in the language of immigration policy, and some formulations (e.g. "importation of labour in bulk") may be reviewed in this context. In general, whereas it is an excellent idea to stress the advantages of working and living in Mauritius, it is not helpful to give even the hint of an impression that Mauritius – "a country after which paradise was copied" – thinks it is kind enough to bestow a favour to foreigners by allowing them to work here. There may be a need for training among the staff of various institutions and Ministries involved in the area of migration, to ensure coordination and a unified positive approach.

6.2. Policy options for Track One A workers: Unskilled and semi-skilled

Although this is not often clearly articulated in Mauritius, there are three main alleged drawbacks of the temporary guest worker system, namely that:

- it may retard technological upgrading of enterprises, and growth in productivity in the economy, and
- it takes away jobs from the local workforce; and
- it sets a bad example for work/family reconciliation, since guest workers without families on the spot have a perverse advantage by out-competing Mauritians – particularly women – who need to make time for their family life besides their work.

a) Increasing Work Permit fees and/or introducing a levy

In so far as the need is felt to alleviate these drawbacks and have a dampening effect on applications by employers for semiskilled and unskilled workers (called "skilled" in Mauritius migration terminology), the possibility may be considered to increase work permit fees or introduce a monthly levy payable by employers on this category of workers. The present Work Permit fees are relatively high (Rs30,000-100,000 per annum) for a few occupations (related to gaming or horse racing) policy, but are nominal for other categories (Rs. 1,000 for construction and manufacturing workers). Employers who wish to recruit foreign workers in the "skilled worker" category already have to incur additional costs and hassle as compared to the employment of nationals; paying for recruitment agencies, providing for return international travel costs and housing, often overcoming language and cultural problems. Requiring from them the payment of a higher fee or levy would further ensure that only badly needed workers are requested. This – in addition to any positive incentives that may be provided – might at the same time entice employers to upgrade their technology and/or offer better conditions to Mauritian candidates. These conditions (including higher remuneration, possibility of part-time work, more job security, optional overtime, transport facilities, training programmes, improved career paths, job enrichment) may make the jobs available more attractive to local job seekers, thus limiting the need for recourse to guest workers, and reducing unemployment.[12]

The amount to be charged could be modulated as circumstances require. It could be more for instance for construction and hotel workers (since these industries cannot be delocalized) and less in the case of the EPZ, where particular care needs to be taken that it should not reach such a level that it would accelerate the closure of enterprises.

A second advantage of such a higher fee or levy would be its contribution to public revenue. The present level of fees appears low and does not cover even a small fraction of the costs to Government of administering the programme and of other negative externalities (use of social services, etc). In other words, Mauritius is presently subsidizing the importation of foreign labour. Only the (high) Work Permit fees for jockeys, racing stewards and gaming occupations, clearly have revenue as their main objective (rather than an especially strong desire to accelerate the training of Mauritians for these particular occupations). In Singapore, when a levy was introduced in 1982 it was S $150 (about Rs2,500) per month, but it has been considerably increased since, varying with the type of occupation. It contributed to as much as 9.1% of all taxes, and 1.5% of GNP in 1997[13].

A final advantage of charging more to employers is that it would allow for a possible simplification of procedures for the delivery of permits of guest workers, and release government staff for other functions. The present procedure is a labour-intensive exercise in micro-management where the inter-ministerial Work Permit Committee, consisting of about ten fairly senior civil servants (permanent and co-opted members) has to deal collectively

[12] For example, the June 2004 Bulletin of the Employment Service reports "…in Flacq, employers are not interested to recruit sewing machine operators without experience. There are also some cases in the region of Flacq where job seekers have stated that they have refused job offers on the ground that proposed wages are too low. In Vacoas, 275 vacancies were reported which consist mainly of knitting machine operators and the employers were looking for candidates with experience".

[13] But these percentages have diminished since (Asher, M. Reforming Singapore's Tax system for the 21st century, Singapore, 2000).

with applications on a case by case basis[14] and a further checking made and final decision taken at Ministerial level. Under a higher fee or levy system, the additional costs to employers to apply for temporary foreign workers would be more substantial, so that it would be reasonable to assume that such workers are really needed, and consequently that no detailed checking of each application necessary. And even in case a "mistake" was made, since temporary workers are involved, the consequences would not be very serious. It might thus be found more cost-effective for the initial temporary Work Permits – at least for "skilled workers" – to be granted by a much lighter and faster process[15]. In Singapore, this process is claimed to take 3 days when treated under the labournet and 5 days by the Internet. It may be noted that in some cases, like the United States, "the employer simply attests that the workers are needed and the prevailing wage will be paid, and there is generally no enforcement unless complaints are made", whereas in Belgium, "the burden of proof lies with the competent authority, which must demonstrate that there is no job scarcity" [ILO, 2004, p.114].

(On the other hand the granting of renewal of permits beyond, say, three years and the granting of anything resembling permanent residence status needs to be carefully considered, in the light of agreed criteria, because of their long term consequences).

A word of caution should be however be said as regards the eventual implementation of a levy or other charges on employers. It is likely that they would want to try to avoid absorbing the higher cost and tend to pass this cost to the worker, in particular through the payment of a lower wage. In order to ensure that this does not happen, the present arrangements to make sure that wages and other conditions of foreign workers are at least as favourable as those applicable to nationals need to be maintained, if not re-enforced. In fact, in a number of countries (including Bahrain, Czech Republic, Kazakhstan, Poland, Senegal and Slovakia) migrant workers have to be offered a premium over the wages offered by nationals (ILO, 2004, p.114).

b) Untethering

Like a majority of guest worker schemes, the Mauritius policy is one of tying-up ("tethering") the foreign worker directly to the sponsoring employer. This has the advantage of facilitating control, but it has drawbacks. Already migrant workers are at a disadvantage being cut-off from their own country's support structure and suffering from unfamiliarity of language and surroundings, making it difficult for them to seek redress for reasonable grievances. When this occurs in the normal course of things, a standard remedy for a worker is to leave the employer, in search of better employment elsewhere. But when migrant workers are tethered to sponsors, they lose this option. Consequently, tethering creates a kind of "ownership" which invites abuse by unscrupulous employers and supervisors. This is almost certainly one of the reasons why the number of work stoppages and complaints concerning foreign workers are more than for nationals – even working with the same employer. Another drawback is that the fact that tethered migrants are not free, like other workers, to respond to wage signals (e.g.

[14] Even this Committee sometimes has difficulty making a proper assessment, since "in a few cases, there is no relevant Ministry/Institution which is entitled to submit views on a particular application. The activities in which the expatriate will be engaged do not fall within the purview of any Authority" (Ministry of Training, Skills Development and Productivity, p. 56).

[15] In Mauritius, the process is reported as having much accelerated recently. When the documentation is complete, it takes "days rather than weeks".

a skilled worker being offered a supervisory role by another employer), inevitably creates inefficiency and lowers productivity growth.

In order to address this problem it is possible to design a policy which would allow guest workers to move, at least within the admitting sector. This would involve for instance a system of tradable work permits, whereby the new employer would assume a portion of the total cost of bringing in the guest worker – and of any training provided – and compensate the original sponsoring employer – in a manner not unlike the transfer of professional football players among teams. An explanation of the rationale and mechanisms involved is contained in the article by Weinstein in the International Labour Review (2002).

c) Other personal restrictions

The present rotating guest worker policy has the effect, if not the objective, of "insulating" to a maximum the guest workers (Track One A) from the local population. It has been reported that there is an implicit policy at the Prime Minister's Office not to encourage the marriage of foreign workers with Mauritians (Jouan, 2003, p. 27).

Mauritius should however consider what limits may be set to the restriction of private life of guest workers, in the light of human rights considerations. In this respect the Singapore limitations may be regarded as somewhat too stringent: Work Permit applicants for temporary non-resident status earning less than S$2,000 a month (about Rs. 34,000) are required to formally undertake to not get married to a Singapore citizen or permanent resident and even "not engage in any relationship ... that will result in the birth of any child" or be involved in "…undesirable activities including breaking up of families of Singapore" (www.mom.gov.sg/MOM/WPD/FORMS/2530). This policy is reported as strictly enforced, including through the implementation of systematic pregnancy tests.

6.3. Policy options for Track One B: supervisory, technical, managerial

The present policy whereby a number of foreign managerial, technical and supervisory workers are granted temporary work permits, and be required to train Mauritians to take over from them seems to be generally accepted and there is no need to put it in question. Similarly, it is quite normal to allow some foreign-owned companies the possibility to have one or two key foreign staff who rotate every few years – with no expectation of becoming permanent residents. The main question that may arise is whether some persons in the supervisory, technical and managerial category under Track One B may be considered to be so desirable (highly skilled, entrepreneurial) that it would be in the national interest that they be granted the option of permanent residence – and in fact could qualify for a Track Two B HSPs programme such as SAPES.

6.4. Policy options for Track Two B: highly skilled foreign persons (HSPs)

In Mauritius, the main policy focus, and the subject of studies, on foreign workers, have, understandably, concentrated on the main group concerned, the so called "skilled" workers in manufacturing/ EPZ and in construction, who represent about 93% of the foreign workers.

Issues towards that group have tended to dominate policy towards all foreign workers, even those in the managerial group and highly skilled group.

As regards the need to attract HSPs, policy should be guided essentially by the assessment by decision makers of development and job creation prospects. It may be considered that the Mauritius economy and the job creation programmes are on track. In 2002, (then) Deputy Prime Minister Bérenger stated that "we are slowly but steadily gearing up to meet the skill requirements of an emerging 'New Economy' in Mauritius" (keynote address at the opening of the ICT week, 4 March 2002). In fact, the global ITES-BPO sector, which employed less than 200 persons in 6 companies in 2000, has known very positive growth in 2003 and early 2004 to reach 2,260 jobs in 60 companies in IT and Business Process Outsourcing as at June 2004 (Board of Investment, *Statistical Analysis of ITES-BPO Companies*, 2004). There is a good case, if matters are broadly going well, to move "slowly and steadily" and not to rush into the inconsiderate implementation of new policies whose consequence can never be fully predicted.

On the other hand, it may be felt that prospects are not so good, and that the situation merits urgent and immediate attention. It may be an exaggeration to diagnose, as do the editorials of *L'Express* quoted earlier, the "economic degenerateness" of Mauritius, and the "exhaustion of projects and ideas". The Opposition may also, not unexpectedly, tend to be over-critical by claiming that "Never since Independence have the economic indicators been so negative….Mauritius risks to be retrograded among the least developed countries" (Labour Party Chief Whip Arvind Boolell, *L'Express*, 30 October 2004). But there is no doubt about the current pessimistic outlook in the country. In August 2004, it was reported, after a high level meeting between the private sector and Government, that a "dramatic deterioration of the economic situation" had been recorded. The Prime Minister had stated that this was "a time of all dangers", since there were unprecedented difficulties in the main economic sectors: EPZ, sugar and tourism. In his view, only the ICT sector provided hope for young people. This was echoed by the JEC chairman "It is clear that we are in an emergency situation …We must take action rapidly", while conceding that "we don't have a magical wand" (*Le Mauricien*, 9 August 2004).

If this pessimistic assessment is confirmed – and the challenges in creating the very large number of jobs mentioned earlier in this paper are broadly correct – rapid and determined action may indeed be necessary. If it is believed – like it is in Germany and elsewhere – that the presence of foreign talent, particularly in the emerging sectors, will help to create new jobs, then consideration should be given – amongst other measures – to a much more energetic promotion of initiatives to attract such talents. In any case it is prudent to do some contingency planning. If the current morose outlook turns out to be too pessimistic, if market conditions and competitivity in textile and sugar improve and Mauritius is able to attract the required number of entrepreneurs, train a greatly increased number of HSPs and create the number of jobs required, it will be easy to place SAPES and similar migration initiatives on the back burner. Indeed, policies needed for the take-off of the knowledge economy in the immediate future are unlikely to be suitable for the succeeding decade.

a) Improving SAPES and permanent residence schemes

The permanent residence schemes for investors (Track Two A) are being monitored by the authorities and no suggestions are made here in their regard. Many of these investors may be highly skilled persons, but some may just be rich people who want to invest at arms length (PRS) or buy a permanent residence for retirement (IRS).

As regards Track Two B – attraction of HSPs (rather than investors), the approach as already noted, is radically different from the mainstream arrangements for admitting foreign workers. (Track One). This present scheme (SAPES) has the same objectives as that of a number of other countries, such as Germany with its "green card" scheme, which has been introduced in 2000, when it was found that Germany had 75 000 unfilled IT posts. SAPES is however more targeted than the broader UK fast-track Highly Skilled Migrant Programme (HSMP), initiated in 2002, which – unlike SAPES – clearly envisages many professions outside IT and financial services, such as Medical Doctors.

The main area where the SAPES Regulations would need to be completed is through the availability of guidelines (such as a points system) which are used in making a determination whether a particular applicant is eligible or not. One of the reasons for the success of the British HSMP is that the precise point system is known in advance and potential candidates can fill in a “points calculator” which is freely available in a number of websites (e.g. www.Workpermit.com/UK). Among the common criteria used by most countries are educational/professional qualifications and level of earnings. To a large extent such objective criteria avoid the need to target particular sectors, and the risk of “missing” some desirable HSPs who would operate in a “sector” which is so innovative that it could not have been targeted in advance. In general, as in all incentive schemes, there is every interest in having criteria as transparent as possible, so that the success of an application may be foreseen with reasonable assurance. The lack of procedural clarity leaves the door open to possible perceptions that outcomes depend on subjective factors or “knowing someone”, and results in putting Mauritius at a disadvantage as compared to other countries vying to attract HSPs.

Another issue for arriving foreign HSPs is housing. Under SAPES they are allowed to acquire a residence. There is some doubt as to whether this is a necessary incentive, since most HSPs are unlikely to want to buy their home immediately upon arrival. Many may come to Mauritius as a stage in their career. It might be more relevant to envisage a housing subsidy similar to the Singapore Scheme for Housing for Foreign Talents (SHIFT) (expatsingapore.com/startup/shift).

The package offered under SAPES and other schemes for permanent residence can – and should – be refined and improved in the light of evolving international market conditions, and of experience. But the main current issue in respect of Track Two and SAPES is not one of designing or improving policies, but rather the extent to which it is considered appropriate to implement existing policy with a high degree of urgency and priority. The following discussion applies to the eventuality that it is considered desirable in the national interest to pro-actively attract foreign talents.

b) Advertising SAPES and permanent resident schemes

At present, it is obvious that HSPs, other than those who would have come anyway, cannot possibly be attracted to Mauritius if a policy such as SAPES – whatever its attractiveness – is brought to the attention of the world as timidly as it is now. For instance, the Financial Services Promotion Agency provides in its website (consulted on 15 October 2004) a Checklist for Work and Residence Permits. This Checklist informs that it is necessary to provide, *inter alia*: "A sponsoring letter from the employer", and to "describe all measures taken by the employer to attempt to recruit a Mauritian in the first instance", and a description of "any future training plans and/or recruitment plans of any local staff by the company for a Mauritian counterpart to take over." This is a correct statement of TRACK ONE B policy, but there is no mention of the SAPES possibility – which has financial services as one of its specific targets – and which does not require HSPs to fulfil the above restrictive conditions.

Potential candidates for SAPES for whom Mauritius is competing with other countries to attract, are infinitely more likely to be aware of the UK HSMP of 2002, which is advertised prominently on the websites of UK Embassies and High Commissions, and in specialized websites (e.g. www.workingintheuk.gov.uk). HSMP had in less in less than two years (September 2004) already accepted 1,569 Indians, 1,094 Americans and 639 Pakistanis, and many other non-EU nationals, including a few Mauritians. Potential SAPES candidates are likely to have seen television footage or press reports of Chancellor Schroeder of Germany personally welcoming and handing over immigration documents to the first person – an Indonesian engineer – admitted under the "Green Card" system, and to have had direct or indirect contact with the 15,000 non-EU IT professionals (of which about 4,000 Indians) accepted in Germany in the first 3 years. Similarly, a large number of people world wide have heard of Singapore's persistent quest for foreign talent to remain competitive in the "knowledge economy". This matter is constantly being referred to by the Prime Minister and other Singapore leaders. These high-level signals are supported by promotional websites, which inform, for instance, that "Some may decide, after spending some time in Singapore, that they love it here and wish to make it home. Here's how to go about becoming a permanent resident and eventually securing citizenship" (www.contactsingapore.org.sg). As a result of this policy implemented over a number of years, there are several thousands foreign HSPs who acquire permanent residence in Singapore every year: 20,300 in 1990; 26,770 in 1999 (Hui and Hashmi, 2004).

Entrusting the responsibility for implementing SAPES to the Board of Investment (BOI) has advantages, since it highlights the fact that, for the development of knowledge-based organizations, what is needed is not so much financial resources to invest in equipment, stocks, buildings, etc, but availability of human capital. However, the BOI, which has many other important functions, cannot be alone to promote this Scheme. If attracting foreign talent is regarded as an important policy, it is essential that reference to SAPES and other permanent residence schemes should figure prominently in the statements of top level leaders in Government and the private sector, including during missions overseas. It should be clearly set out in the documentation provided by the Employment Service or the Residence Permit section of the Department of Defence and Home Affairs. Similarly organizations like the Free Port Authority, the FSPA, or the Cyber city (BPML), for which this Scheme is of potentially great direct interest, should actively advertise it in their communication to the world (brochures, website, and promotional missions). Finally, it may be observed that the private sector (perhaps because it may not have been sufficiently involved at the design stage) has been conspicuously silent on the subject attracting talent, on SAPES-type initiatives, and the promotion of Regional headquarters. If they believe that "urgent action is needed" (JEC Chairman Currimjee, quoted above), the private sector though one or more of its bodies (JEC, MEF, MCCI) should take a position on this issue. In case they have reservations they should offer suggestions to Government. In case they consider SAPES a positive initiative, it may be envisaged that joint promotion may be undertaken collectively under various modalities (e.g. joint data base, head-hunting organisation, promotion in prestigious magazines and in selected universities).

c) Internal communication

The fact must be faced that, like in all countries, the political, cultural, social and economic implications of allowing immigrants to settle (and eventually acquire citizenship), as implied by SAPES, are highly sensitive. In almost all countries, "widespread xenophobia is often an irrational non-economic force of sufficient strength to cause host country natives to rally against their own self-interest" (Weinstein, 2002). This should not be exaggerated in Mauritius where the population is quite positive about tourists and the revenue they generate. After all, foreign HSPs are very much like long-term tourists. But there will always be some who feel that these HSPs are getting some sort of favour, that they "taking jobs away from us" or "are buying up everything and cause prices to rise" or are overcrowding a high-density territory. Others may fear that such permanent newcomers may disturb the precarious ethnic and religious equilibrium among the various groups constituting the population and, if they or their children obtain citizenship, this will have undesirable electoral consequences (e.g. on the "best loser" system).

Consequently, if attracting foreign talent is to be successfully achieved, not only must all stakeholders be associated with the design of policies, but communication on why this policy is in the national interest must be done internally as well as externally. Singapore again offers a possible example. For instance, in both 1997 and 1998, Prime Minister Goh Tok Chong talked about the need to import foreign talent in his National Day Rally speech (23 August). He argued for this policy in front of the whole population, citing the contributions of foreign talent within the senior management of Microsoft, the French World Cup football team, and the Singapore team (which included permanent citizens) which successfully scaled Mt. Everest. The argument of being "overcrowded" in a small island by the eventual coming of newcomers also needs to be addressed. This could be done in presenting to Mauritians the image of their country as an "Island City state", in which case it is far less densely populated than Singapore and Hong Kong, and has a far lesser population growth than Dubai (5% p.a.).[16] Another important issue is the need to address the problems of "ordinary" persons (e.g. workers who would be losing their jobs in traditional sectors, less qualified entrants in the labour force). They may well feel completely by-passed and marginalized by this hi-tech talk about hubs, BPO, ICT, internet connectivity and so on. One avenue to assist them is to pay more attention to the informal sector, and help in the creation of micro-enterprises, and highlighting the fact that the presence in the country of more HSPs may, as tourism does, provide enhanced opportunities in the informal sector.[17]

[16] Dubai's economic growth over the past decade has been 10% p.a. This is largely attributed to the great influx of immigrants (82% of the population).

[17] Activities like cake selling or domestic service come to mind. This last occupation is being rehabilitated and "professionalised" world-wide (e.g. *aides familiales* in France). In the UK there are more domestic servants now than in the 1920's. A school for private butlers has opened in London.

d) Quotas as a possible instrument

Even with the most proactive implementation of SAPES, it is most unlikely that there would be a sufficient number of qualified applicants to reach the figure of 50,000 Highly Skilled immigrants in 5 years envisaged by the Director of *L'Express*, quoted above. In any event, many among those given the option of permanent residents would not stay for ever in Mauritius, for one reason or another. Even in a country with vast opportunities like the US it is estimated that 20% of migrants leave within 10 years. Among Indian technical personnel who have emigrated, the expression "B2B" has also come to mean "Back to Bangalore" ("India's new B2B means back to Bangalore", *Financial Times*, May 19, 2004). However, if it is found desirable to anticipate possible fears that Mauritius would be swamped by an uncontrolled "new wave" of (permanent) immigrants, some restrictive parameters may be indicated. If ever the number of HSP applicants was to exceed the national needs as assessed from time to time, it would be possible to raise the level of qualification – or earning power – for admission under permanent resident schemes such as SAPES. The purchase of land by newcomers in a small island is a real issue, while the option of acquiring properties is not a primary attraction to most potential candidates. HSPs could be restricted to purchasing apartments only, unless and until they obtain full citizenship. It would also be easy, if thought appropriate, to establish a yearly indicative overall quota for admission of foreign HSPs, or foreign workers in general. In fact, there is already in Mauritius a kind of quota per enterprise under the mainstream Track One A policy: "In cases of application for groups of workers, work permits are normally granted where a ratio of three local to one expatriate worker is satisfied" [Guidelines, 1.3(v)].

A different type of possible quota is one by country of origin. Although this might be seen as a way of maintaining a certain ethno-religious balance in the resident population as a whole, one hesitates to recommend such a policy. In fact, such quotas, possibly because of their "racial" bias, are not current in most countries and have been abandoned (US, Australia). Singapore, however, is understood to be following such a policy more or less openly, with Malaysia being regarded as a "traditional source country". "For political reasons, (there is) a policy of maintaining the 'ethnic composition' of the resident population in the long term (currently, 77% Chinese, 14% Malays, and 8% Indians) (Ruhs, 2001, p.13). In Mauritius, one option might be to include, like Canada, "cultural factors" in the point system to allocate permanent residence permits. Should Mauritius enter into bilateral migration agreements with specific countries, this would inevitably orient migration. Finally, country of origin bias may also be justified in the context of regional cooperation and integration arrangements, such as the Commission de l'Océan Indien or SADC.

e) Access to citizenship and dual nationality

Linked to the question of settlement is its logical sequel: naturalization. Mauritius is not averse to naturalization of desirable foreigners, as illustrated by the provisions mentioned above for naturalisation of investors and for the granting of permanent residence under SAPES-opening the way to naturalization.

The option of a certain permanency of residence and removing the uncertainty attached to temporary work permits is probably more important for attracting HSPs than acquisition of nationality. Many permanent residents in countries like Singapore and Switzerland are quite content with their status and do not seek nationality even though they are eligible. In Singapore this reluctance is due in part to the military service requirements (which permanent residents are not subject to) to the point that this has caused "some frustration" among Singaporeans (Ruhs, p. 13).

A provision debarring certain residents and their family from access to nationality is already in place in the current Track One B policy which states that "Expatriates employed at managerial/supervisory/technical levels may be allowed to work for a period of five years or more, subject to full justification being provided and upon their swearing of an affidavit to the effect that they will not apply for Mauritian citizenship" (Guidelines 14 April 2004). This may be appropriate for Track One B persons, but is a rather defensive attitude that may have a deterrent effect on some badly needed HSPs- who will naturally feel that they are not fully welcome – as they would be in so many other countries.

In any case, since the Citizenship Act provides for the renunciation by applicants of their previous citizenship, this already deters most potential applicants, including spouses[18]. The requirement preventing dual nationality is being abandoned in an increasingly large number of countries[19] and many Mauritians themselves have dual nationality. Mauritius may find it in its interest to change this dual nationality provision for applicants for naturalization.

6.5. Encouraging return migration

The remark of Prime Minister P.J. Patterson, referring to Jamaicans overseas, to the effect that "Jamaica is a country without borders" may well apply to Mauritius as well. Like all similar diasporas, Mauritians living overseas are a source of remittances, welfare providers, and potential investors. Importantly, many of them are HSPs, who can constitute knowledge networks able to pass on information and contacts, and could be able to play a significant role in promoting the knowledge economy and be instrumental in job creation.[20] There are at present no reliable data on Mauritian migrants, and Mauritius does not appear to have formal operational policies and arrangements for using the potential of the overseas communities, or of promoting return migration[21]. In the context of attracting foreign HSPs, a policy to encourage return migration may be envisaged. Some suggestions of related proactive measures are made below.

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[18] However, it would appear that the "renunciation" of a foreign nationality in the Mauritian Courts is merely a symbolic gesture which has no legal value in the country of the renunciator – even assuming the matter was brought to the attention of the concerned authorities. (As indeed, the renunciation by a Mauritian of his or her nationality in a foreign court would have no legal standing in Mauritius). Consequently, the present provision only serves as a psychological deterrent.

[19] In Switzerland, for example, it was found that the supposedly much-prized Swiss Passport was being spurned by immigrants from say Portugal or Spain – and their families – in favour of the EU passport, thus depriving Switzerland of useful citizens.

[20] It can be argued that return migrants have been one of the main forces behind the spectacular growth of China. In particular, they are playing a major role in the development of business parks. ("On their way back", *The Economist*, 19 November 2003).

[21] Other than allowing return long term migrants to import their used car duty-free.

a) TOKTEN

One option is to implement the UNDP TOKTEN programme (Transfer of Knowledge Through Expatriate Nationals). Within this framework, qualified Mauritian expatriate professionals would return for short periods of time to share the skills they have gained during their residence abroad. They would perform tasks that might otherwise be performed by international consultants, but since they generally volunteer their services, often motivated by a desire to play a role in the development process of their country of origin, transfer of knowledge occurs at a much lower cost. In addition their intervention is often at a greater speed, since TOKTEN consultants need no period of adjustment to get acquainted with language or social and cultural context. In virtually all cases, networks are created and follow-up takes place. For example from January 1995 to January 2000, 40 Lebanese expatriates established in Europe, USA, Canada, Australia and Kuwait volunteered their services through the TOKTEN programme. Of these, 6 have already settled back in Lebanon after their mission gave them a first-hand taste of life in the country they left years ago (Source: www.undp.org.lb).

b) Promoting Networks

Another initiative in the same direction could be to encourage and support a network of the intellectual and professional expatriate Mauritians. Interesting examples from other countries include the South African Network of Skills Abroad (SANSA), which is said to have more than 2000 members, the Philippines Brain Gain Network, and the launching by the Federation of Indian Chambers of Commerce and Industry of a “Diaspora Division”. In Jamaica, a Conference, opened by the Prime Minister was held in June 2004 under the theme ‘The Jamaican Diaspora: Unleashing the Potential’. A database of overseas nationals is being established, setting out their particular skills and areas of expertise. It was even decided to declare June 16 Jamaican Diaspora Day to be observed annually (www.jamaicandiaspora.org). Most people in a network of this kind may not become return migrants, but may regularly move back between their two countries, affording a circulation or sharing of know-how.

c) Persons of Mauritian origin

Finally, in the context of return migration, the notion of “persons of Mauritian origin” may be explored- along the lines of the Indian model, which was found to be so successful that in 2002 it was extended to cover four generations back.[22] Such persons, although not citizens, would have certain special facilities in their relations with Mauritius, and would encourage closer links and in some cases may become return migrants.

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[22] A "Person of Indian origin" means a foreign citizen not being a citizen of Pakistan, Bangladesh and other countries as may be specified by the Central Government from time to time if (i) he/she at any time held a Indian passport; or (ii) he/she or either of his/her parents or grand parents or great grand parents was born in and permanently resident in India … ; or (iii) he/she is a spouse of a citizen of India or a person of Indian origin covered under (i) or (ii) above (www.indianembassy.org/policy/PIO).

7. Conclusion

The traditional pillars of the Mauritian economy are unlikely to provide the number of jobs needed by the increasing workforce. Some sectors will shed employment. Mauritius has decided to rely for transforming itself into a knowledge economy, with ICT playing a major role, for the creation of the required large number of new jobs. Programmes for developing skills and encouraging entrepreneurship are currently in place. The possibility must be envisaged that these efforts may not be sufficient to reach the desired results within the necessary time-frame. Mauritius has over the past decade imported temporary workers, particularly for production jobs. The mechanisms for the management of such temporary workers are constantly improving. Besides the present mainstream policy of temporary guest workers, Mauritius may find it in its interest to attract a significant number of Highly Skilled Persons giving them the option of permanent residence until the country has been able to produce enough highly trained personnel. Active promotion of SAPES should be envisaged, as well as return migration. The overall migration policy could be presented in a coherent comprehensive manner, clearly indicating the various tracks concerned, and widely disseminated.

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Annex I

Table A - Gross Domestic Product at constant 1992 prices, 1992 - 2004

(Rs. million)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[1]	2002[2]	2003[2]	2004[3]
Agriculture, hunting, forestry and fishing	5,037	4,733	4,454	4,781	5,018	5,184	5,084	3,897	5,147	5,516	4,605	4,681	4,894
Sugarcane	2,907	2,471	2,174	2,392	2,657	2,790	2,860	1,604	2,639	2,900	2,175	2,243	2,400
Other	2,130	2,262	2,280	2,389	2,361	2,394	2,224	2,293	2,508	2,616	2,430	2,438	2,494
Mining and quarrying	70	75	80	86	91	94	97	99	102	105	53	54	56
Manufacturing	10,298	10,701	11,133	11,798	12,575	13,334	14,143	14,267	15,609	16,341	15,810	15,787	16,159
Sugar	1,255	1,071	942	1,041	1,169	1,286	1,318	725	1,193	1,311	983	1,014	1,085
E.P.Z products	4,990	5,289	5,516	5,792	6,198	6,569	7,023	7,444	7,891	8,238	7,747	7,282	7,209
Other	4,053	4,341	4,675	4,965	5,208	5,479	5,802	6,098	6,525	6,792	7,080	7,491	7,865
Electricity, gas and water supply	950	1,051	1,131	1,229	1,321	1,444	1,594	1,732	2,133	2,372	2,428	2,539	2,687
Construction	2,990	3,184	3,385	3,330	3,490	3,459	3,666	3,978	4,276	4,341	4,672	5,191	5,388
Wholesale & retail trade	5,615	5,996	6,355	6,625	6,984	7,332	7,671	8,062	8,317	8,582	8,856	9,138	9,431
Wholesale and retail trade	5,405	5,783	6,124	6,406	6,759	7,096	7,416	7,787	8,020	8,261	8,509	8,764	9,027
Other	210	213	231	219	225	236	255	275	297	321	347	374	404
Hotels and restaurants	1,770	1,982	2,180	2,376	2,756	3,038	3,220	3,349	3,801	3,839	3,963	4,082	4,127
Transport, storage and communications	4,841	5,228	5,589	5,902	6,315	6,884	7,689	8,258	9,199	10,018	10,689	11,309	12,101
Financial intermediation	2,375	2,540	2,758	2,966	3,172	3,430	3,718	4,103	4,703	5,222	5,331	5,716	5,866
Insurance	710	750	807	888	959	1,040	1,108	1,174	1,233	1,356	1,465	1,572	1,651
Other (mainly banking including offshore)	1,665	1,790	1,951	2,078	2,213	2,390	2,610	2,929	3,470	3,866	3,866	4,144	4,215
Real estate, renting and business activities	3,960	4,164	4,396	4,702	4,939	5,195	5,475	5,802	6,156	6,559	6,966	7,398	7,876
Owner occupied dwellings	2,550	2,652	2,758	2,854	2,954	3,037	3,134	3,234	3,334	3,454	3,566	3,682	3,792
Other	1,410	1,512	1,638	1,848	1,985	2,158	2,341	2,568	2,822	3,105	3,400	3,716	4,084
Public admin. & defence; compulsory social security	2,564	2,697	2,889	3,056	3,249	3,359	3,480	3,605	3,768	3,926	4,169	4,395	4,627
Education	1,838	1,906	1,990	2,064	2,097	2,223	2,356	2,507	2,727	2,853	3,038	3,193	3,410
Health and social work	1,109	1,205	1,277	1,307	1,323	1,376	1,458	1,572	1,668	1,765	1,915	2,049	2,180
Other community, social & personal service activities and private households with employed persons	1,175	1,339	1,473	1,570	1,687	1,821	1,940	2,076	2,186	2,343	2,535	2,720	2,924
FISIM	-1,307	-1,405	-1,531	-1,631	-1,737	-1,876	-2,050	-2,300	-2,726	-2,917	-3,076	-3,248	-3,317
Gross Domestic Product at basic prices	43,285	45,396	47,559	50,161	53,280	56,297	59,541	61,007	67,066	70,865	71,954	75,004	78,409
Taxes on products net of subsidies	6,965	7,383	7,457	7,285	7,358	7,836	8,455	8,963	9,312	9,545	9,831	10,225	10,685
Gross Domestic Product at market prices	50,250	52,779	55,016	57,446	60,638	64,133	67,996	69,970	76,378	80,410	81,785	85,229	89,094

1/ final estimates. 2/ revised estimates. 3/ forecast. Source: Central Statistical Office.

Table B - Gross Domestic Product-sectoral growth rates (% over previous year), 1992- 2004

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[1]	2002[2]	2003[2]	2004[3]
Agriculture, hunting, forestry and fishing	+6.1	-6.1	-5.9	+7.5	+5.7	+3.5	-1.5	-25.8	+33.3	+7.2	-16.8	+1.7	+4.7
Sugarcane	*+7.1*	*-15.0*	*-12.0*	*+10.0*	*+11.1*	*+5.0*	*+2.5*	*-43.9*	*+64.5*	*+9.9*	*-25.0*	*+3.1*	*+7.0*
Other	*+4.7*	*+6.2*	*+0.8*	*+4.8*	*-1.2*	*+1.4*	*-7.1*	*+3.1*	*+9.4*	*+4.3*	*-7.1*	*+0.3*	*+2.3*
Mining and quarrying	+8.0	+7.5	+7.0	+7.0	+6.0	+3.0	+3.0	+3.0	+3.0	+3.0	-50.0	+3.0	+3.0
Manufacturing	+6.6	+3.9	+4.0	+5.9	+6.5	+5.9	+6.2	+2.0	+7.9	+4.4	-2.4	+0.0	+2.4
Sugar	*+8.2*	*-14.7*	*-12.0*	*+10.5*	*+12.3*	*+10.0*	*+2.5*	*-45.0*	*+64.5*	*+9.9*	*-25.0*	*+3.1*	*+7.0*
E.P.Z products	*+6.0*	*+6.0*	*+4.3*	*+5.0*	*+7.0*	*+6.0*	*+6.9*	*+6.0*	*+6.0*	*+4.4*	*-6.0*	*-6.0*	*-1.0*
Other	*+6.9*	*+7.1*	*+7.7*	*+6.2*	*+4.9*	*+5.2*	*+5.9*	*+5.1*	*+7.0*	*+4.1*	*+4.2*	*+5.8*	*+5.0*
Electricity, gas and water supply	+4.9	+10.6	+7.6	+8.7	+7.5	+9.3	+10.4	+8.6	+23.2	+11.2	+2.3	+4.6	+5.8
Construction	+9.0	+6.5	+6.3	-1.6	+4.8	-0.9	+6.0	+8.5	+7.5	+1.5	+7.6	+11.1	+3.8
Wholesale & retail trade	+6.5	+6.8	+6.0	+4.2	+5.4	+5.0	+4.6	+5.1	+3.2	+3.2	+3.2	+3.2	+3.3
Wholesale and retail trade	*+6.0*	*+7.0*	*+5.9*	*+4.6*	*+5.5*	*+5.0*	*+4.5*	*+5.0*	*+3.0*	*+3.0*	*+3.0*	*+3.0*	*+3.0*
Other	*+20.0*	*+1.0*	*+8.6*	*-5.3*	*+3.0*	*+5.0*	*+8.0*	*+7.7*	*+8.0*	*+8.0*	*+8.0*	*+8.0*	*+8.0*
Hotels and restaurants	+12.6	+12.0	+10.0	+9.0	+16.0	+10.2	+6.0	+4.0	+13.5	+1.0	+3.2	+3.0	+1.1
Transport, storage and communications	+7.0	+8.0	+6.9	+5.6	+7.0	+9.0	+11.7	+7.4	+11.4	+8.9	+6.7	+5.8	+7.0
Financial intermediation	+7.4	+6.9	+8.6	+7.4	+7.0	+8.2	+8.3	+10.3	+14.6	+11.0	+2.0	+7.2	+2.6
Insurance	*+6.0*	*+5.6*	*+7.6*	*+10.0*	*+8.0*	*+8.5*	*+6.5*	*+6.0*	*+5.0*	*+10.0*	*+8.0*	*+7.3*	*+5.0*
Other (mainly banking including offshore)	*+8.0*	*+7.5*	*+9.0*	*+6.5*	*+6.5*	*+8.0*	*+9.2*	*+12.2*	*+18.5*	*+11.4*	*+0.0*	*+7.2*	*+1.7*
Real estate, renting and business activities	+5.5	+5.1	+5.5	+7.0	+5.1	+5.3	+5.6	+6.2	+6.4	+6.8	+6.5	+6.5	+6.8
Owner occupied dwellings	*+4.0*	*+4.0*	*+4.0*	*+3.5*	*+3.5*	*+2.8*	*+3.2*	*+3.2*	*+3.1*	*+3.6*	*+3.2*	*+3.2*	*+3.0*
Other	*+8.1*	*+7.2*	*+8.4*	*+12.8*	*+7.4*	*+8.7*	*+8.5*	*+9.7*	*+9.9*	*+10.0*	*+9.5*	*+9.3*	*+9.9*
Public administration and defence	+3.0	+5.2	+7.1	+5.8	+6.3	+3.4	+3.6	+3.6	+4.5	+4.2	+6.2	+5.4	+5.3
Education	+7.4	+3.7	+4.4	+3.7	+1.6	+6.0	+6.0	+6.4	+8.8	+4.6	+6.5	+5.1	+6.8
Health and social work	+7.0	+8.7	+5.9	+2.4	+1.2	+4.0	+6.0	+7.8	+6.1	+5.8	+8.5	+7.0	+6.4
Other community, social & personal service activities & private households with employed	+12.7	+14.0	+10.0	+6.6	+7.4	+8.0	+6.5	+7.0	+5.3	+7.2	+8.2	+7.3	+7.5
FISIM	+8.0	+7.5	+9.0	+6.5	+6.5	+8.0	+9.3	+12.2	+18.5	+7.0	+5.5	+5.6	+2.1
Gross Domestic Product at basic prices	+6.8	+4.9	+4.8	+5.5	+6.2	+5.6	+5.7	+2.3	+9.3	+5.6	+1.8	+4.3	+4.6
Overall growth excluding sugar	+6.7	+7.0	+6.2	+5.1	+5.8	+5.4	+5.9	+5.9	+7.3	+5.4	+3.2	+4.3	+4.4
Taxes on products net of subsidies	+5.0	+6.0	+1.0	-2.3	+1.0	+6.5	+7.9	+6.0	+3.9	+2.5	+3.0	+4.0	+4.5
Gross Domestic Product at market prices	+6.5	+5.0	+4.2	+4.5	+5.6	+5.7	+6.0	+2.8	+8.6	+5.2	+1.9	+4.3	+4.6

1/ final estimates . 2/ revised estimates. 3/ forecast. Source: Central Statistical Office.

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