



The Vision 2030 Blueprint

DRAFT VERSION 4
14 JUNE 2016

STATEMENT BY THE RT. HON. PRIME MINISTER



It is my firm conviction that as Prime Minister, it is my duty to move Mauritius to yet new horizons, and to transform the country into a prosperous, just and harmonious society with uninhibited opportunities for economic, human and social developments. The dawn of high investment and high employment will only happen when we shall come to terms that economic prosperity should go hand in hand with a stronger and fairer society. But this requires strong policy measures, concrete actions, strong governance structures, cross-sector collaboration, and a new mindset resting on discipline, integrity, hard work, and meritocracy.

My vision is to propel the country into a new era of prosperity culminating in our reaching the status of a “**High Income Country**” by the year 2030. I have faith in the Mauritian population to manage the challenges ahead so that collectively we can achieve the “**Second Economic Miracle**” which is within our reach.

Our social partners have recognized the case for longer-term strategic planning. This is why we have come up with the “**Vision 2030 Blueprint**”. This document, which elaborates on the future orientation that will set the stage for the socio-economic development of the country for next 15 years, is a reflection of the aspirations and potential of our people in an inhospitable global environment.

The Blueprint, which looks at a time horizon of a generation, identifies the major challenges and obstacles that we need to address, and propose a set of strategies that will enable us to overcome these. It defines the broad future “goals” for the country that are compatible with the aspirations of the Mauritian people. It also sets out the “outcomes” and “targets” to be achieved in the various spheres of activity. The **Vision 2030 Blueprint** will serve as a guide for all our developmental efforts – public sector, private sector, and the civil society.

I would wish to point out that the **Vision 2030 Blueprint** is a **non-partisanal document** that has been prepared in consultation with the best brains hailing from all walks of life. It reflects our collective understanding, a shared dream and a pledge of the Mauritian citizenry to build a quality society. Here, I

would like to thank all our stakeholders for the passion and commitment showed during the consultative process and for making constructive proposals in laying the foundation of a modern Mauritius.

Vision 2030 Blueprint recognizes that our people are our most precious asset and our priority is to leverage this strength to drive growth and development. The qualitative transformation we aspire to usher in is challenging, and it will require major changes in all sectors of activity, while at the same time preserving the innate lifestyles, culture, traditional values and eco-systems that we cherish. **Henceforth, we will need to ignite our minds to think differently and do things differently.**

It will, however, take our collective effort to realize the Vision. I would now call upon the participation of one and all, young and old, in our national effort to help shape our common destiny for a better future for ourselves and for the future generations. I know that Mauritians have the goodwill and determination to realize their individual and collective goals.

I can assure my fellow countrymen that I will not falter in my determination to strengthen the role of Mauritius in the international community and improve the position of Mauritius as a well-respected jurisdiction.

I am confident that the roadmap we have charted together is within our grasp. For this, we have to adopt the right attitude and mindset. So, let us all take a pledge to make Mauritius the best place to live, to work, to do business and to be happy.

It is a great privilege for me to commend the “Vision 2030 Blueprint” to my fellow countrymen. An economically prosperous Mauritius will be my legacy for the future generations.

Sir Anerood Jugnauth, GCSK, KCMG, QC
Prime Minister
...June 2016

FOREWORD BY THE CHAIRMAN OF THE NATIONAL ADVISORY COUNCIL

The vision of Government is to create a “**virtuous circle**” between economic growth, human development, social inclusion, and environment protection so that Mauritius achieves the status of “High-Income Country” by 2030. This will require a transformation into a forward looking, environmentally sustainable, economically vibrant and innovative country with modern infrastructure, global connectivity, high skills and technology to improve the standard of living of citizens.

The need, therefore, arises for an overarching framework (i.e. a Strategic Plan) that caters for the economic, human, social and environmental development, including the **key outcomes**¹ to be achieved in the main economic sectors, while making efficient use of the available physical and human resources. However, the challenge remains one of balancing economic growth on the one hand and fairness and equity on the other.

Work on the “**Vision 2030 Blueprint**” started just after the delivery of the “Economic Mission Statement” by the Rt. Hon. Prime Minister in August 2015. A “**Vision 2030 High-Powered Committee**” was set up under the Chairmanship of the Rt. Hon. Prime Minister to lead the national strategy development process. The “**National Advisory Council**” under my Chairmanship was tasked to assist the “High-Powered Committee”, and to spearhead and formulate socio-economic strategies and policies in an **coherent** and **holistic** manner, and addresses cross-cutting issues that transcend the boundaries of Ministries and organisations, and the public / private sector divide.

The “**Vision 2030 Blueprint**” is a “**Dynamic**”, “**Visionary**” and “**Flexible**” document designed to respond to changes in the pattern of socio-economic development (growth with equity) over the **next five, ten and fifteen years**.

The Blueprint is an **aspirational document** that ambitions to provide guidance to other agencies (both in the public and private domain) to align their own Strategic Plans / Action Plans with a view to bringing policy synergies between the various actors, and also to prioritise development activities using a “**common denominator**” on how to select and schedule these activities.

The Vision embodies the nation’s commitment to productivity, efficiency, competitiveness and service excellence, as well as targets that are achievable. It is built around six pillars, namely -

1. Vibrant Economic Growth,
2. Just, Peaceful and Harmonious Society,

¹**Outcomes** are changes in the economic, physical, social and cultural environments which the State Agency(ies) is trying to influence through provision of goods and services, general regulation and financing, i.e. what Government is trying to achieve for the public, e.g. improvements in the living conditions (**OECD**)

3. Sustainable Environment & Natural Resources,
4. Safety and Security,

5. State-of-the-art ICT Infrastructure, Technology & Innovation, and
6. Strong Leadership, Talent, and Culture.

The **"Vision 2030 Blueprint"** has been prepared after extensive consultations with the Public Sector, Private Sector, Labour Organisations, Academia, Companies, Business Chambers, Entrepreneurs, members of the Public, the Civil Society, Development Partners, Mauritian Diaspora, etc.to capture the diverse needs and aspirations of one and all.

The Blueprint will be reviewed periodically to effectively respond to changes in the global, regional and local environment, as well as to catch up on slippages. A **Monitoring and Evaluation** tool is incorporated to measure progress over the years to ensure that we are on course and address any bottlenecks arising during implementation.

I would wish to thank the Rt. Hon. Prime Minister for entrusting the preparation of the Vision 2030 Blueprint to the National Advisory Council, and for his support and guidance throughout the process.

I would also wish to thank Members of the National Advisory Council, Members of the Working Committees and other stakeholders (Private Sector, Labour Organisations, NGOs, Academia, the Diaspora, Civil Society, Development Partners, Experts, etc.) for submitting their views and valuable suggestions.

Last but not least, I would like to thank the Senior Advisers at the Prime Minister's Office, my Secretariat, and the personnel of the "Strategic Policy and Planning Department" for producing the Blueprint.

**S. Seebaluck, GOSK
Chairman, National Advisory Council
...June, 2016**

NATIONAL PILLARS, TARGET RESULTS AND STRATEGIC OBJECTIVES (OUTCOMES)

To be revised in final draft

NATIONAL PILLARS	TARGET RESULTS	STRATEGIC OBJECTIVES (OUTCOMES)
1. Vibrant Economic Growth	Mauritius achieves significant economic growth & is a trusted, innovative economic hub for the region.	1.1 Macro-Economic Stability & Diplomacy (Africa Strategy) 1.2 Development and Consolidation of Traditional Pillars (Agriculture, Manufacturing, Travel & Tourism, Financial Services) 1.3 Development of Emerging Sectors (ICT / BPO, Ocean Economy, <u>Hubs</u> -Knowledge, Aviation, Port, Trading and Logistics, Medical) 1.4 Development of Rodrigues and the Outer Islands 1.5 Economic Empowerment (Inclusive Growth) 1.6 Combat the Illicit Economy 1.7 National Investment Strategy (Major Public / Private Sector Projects)
2. Just, Peaceful and Harmonious Society	Mauritians are happy, healthy, peaceful, and united.	2.1 Improved Standard of Living 2.2 Positive Population Dynamics 2.3 Care for the Elderly, Disabled and Vulnerable Groups (Handicapped) 2.4 Affordable, Quality Public Housing 2.5 Sports, Arts, Leisure and Unified National Culture (Nation Building) 2.6 Happy & Strong Families upholding Moral and Ethical Values (Bridging the Intergenerational Gap) 2.7 A Healthy Population with Quality Healthcare 2.8 Women & Children (Gender Issues)
3. Sustainable Environment & Natural Resources	Mauritius is a reference for sustainable development & environmental excellence.	3.1 Sustainable use of land and other natural resources (Land Use Management) 3.2 A well-protected biodiversity (incl. Marine life) 3.3 Living environment resilient to climate change, Disaster Preparedness
4. Safety and Security	Mauritius is amongst the safest countries in the world.	4.1 Safety & Security, Law & Order, Judiciary 4.2 Drug Free Mauritius 4.3 Institutional Reforms, Strong National Identity
5. State-of-the-art ICT Infrastructure, Technology & Innovation	State-of-the-art ICT Infrastructure enables internal excellence & global connectivity (Intelligent Mauritius)	5.1 Development of Soft Infrastructure 5.2 Development of Hard Infrastructure (Port, Airport, Roads & Transport, Utilities – Water, Energy, Sanitation, Telecommunications, other Logistics (Services sector), Heritage & Cultural Preservation) 5.3 Development of Thought Innovators, Research & Expertise
6. Strong Leadership,	Mauritius has a globally competitive, innovative, trusted	6.1 Develop strong Public & Private Commitment to develop Leadership & Talent 6.2 Develop Institutional Excellence

Talent, Culture	and	workforce/talents that deliver excellence.	6.3 Enhance Good Governance, Ethics, Transparency, & Accountability 6.4 Design, develop and nurture Leadership Brand & Culture of Excellence, Trust, Innovation Together 6.5 Initiate national workforce analysis & talent development strategy 6.6 Enhance World Class Education & Training; Human Capital , Science, & Technology 6.7 Boost SME & Grassroots Experiential Innovation Programs 6.8 Design and Implement Full Employment Plan & Programs
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DRAFT CONFIDENTIAL

Executive Summary

In his “**Economic Mission Statement**” to the nation in August 2015, the Rt. Hon. Prime Minister had set the tone for the **Vision 2030 Blueprint**, and outlined some of the measures for achieving the second economic miracle. The objective is to transform Mauritius so as to enable the citizens and future generations to live in dignity and prosperity in a country in which they enjoy security, stability and social harmony.

Mauritius in 2030 aspires to be a reference in the quality, speed and reliability of services. The quest for excellence is, therefore, at the core of all undertakings because achieving excellence is not an end in itself, but an on-going process that is not restricted by the boundaries of time and place.

CHALLENGES FOR THE COUNTRY

As a Small Island Developing State (SIDS), Mauritius faces numerous challenges – it is vulnerable to the outturn of the global economy, climate change and natural disasters, situations over which it has no control but needs to build resilience. On the domestic front, it is rapidly moving towards an ageing and declining population. Over the last few years, the (economic) growth rate has remained moderate at around 3.4% per annum, and unemployment among the youth and women has been in the range of 7 to 8%. This situation is compounded by the relatively low productivity of the labour force, the mismatch between available skills and the requirements of the market, and the growing income inequality which are factors that inhibit growth and may be the cause of social unrest if not addressed as a matter of urgency.

METHODOLOGY

The Vision 2030 Blueprint articulates around **Six “Pillars”** around which the different productive, social and infrastructure / support sectors and services have been grafted.

The approach adopted in the Blueprint aims to align existing, developing, and emerging / new economic sectors to achieve a **growth rate averaging 5.5% annually** so as to propel Mauritius to the status of “High-Income Economy” by 2030. The macro-economic fundamentals will be further developed into low-, medium-, and high-growth scenarios.

The grouping of sectors are as follows -

- **Traditional sectors :** Agro-industry, Manufacturing, Tourism, MSMEs
- **Developing sectors :** BPO, ICT, Financial services, Logistics and trade hub

- **Emerging sectors :** Knowledge Process Outsourcing, Knowledge hub, Medical hub
- **New sectors :** Marine Economy, Phyto-pharmaceuticals, Clinical trials
- **Export oriented Service sectors :** Sustainable Development Expertise, Entrepreneurship / SME development services, Energy efficiency / Renewable Energy services

The necessary “**input factors**” and “**economic infrastructure**” requirements of the above sectors provide the basis for creating a conducive environment and providing the accompanying support services to deliver on the goals set. These include, among others, the following -

- Education and Skills Development
- R & D / Innovation / Technology transfer
- Safety and Security / Law and order
- International Trade / Economic Diplomacy / Regional Cooperation
- Health / Quality of life
- Infrastructure : Roads / Port/ Airport/ Logistics
- Utilities / Communications
- Solid waste / Climate adaptation/ Sustainable Development
- Local government / Decentralization / Urban & Rural revival
- Land /physical planning / Housing
- Trade / Consumer protection
- Reform of the public sector
- Arts and Culture / Heritage
- Youth/Sports

Given their specificities, a Chapter is devoted to Rodrigues and the Outer Islands.

THE FOUR DIMENSIONS OF THE VISION 2030

Throughout the process of developing the Blueprint, the sectors of activities have been examined using four dimensions of analysis which aim to refocus the contents so as to align to the core objectives of the Vision. These are -

- **Inclusive Society** : In order to address growing inequalities, the strategies and action plans consider, integrate and are built around inclusiveness – poverty, gender, the disabled and democratization (e.g. MSMEs) - across all sectors.
- **Intra and Inter Sectorial Linkages** : In the context of a small island economy with limited resources and small market size, linkages have been identified and developed within and between sectors to offset the traditional “silos approach” to address challenges and cash on opportunities.
- **Attainment of UN’s Sustainable Development Goals (SDGs)** (The 2030 Agenda for Sustainable Development) : The high-level commitment to SDGs provides an effective, action-oriented

framework to build or reinforce the sustainability and inclusive dimensions of the Vision, the more so since both share the same time horizon of 2030.

- **Africa Strategy :** With a view to expanding the limited economic space, innovative strategies have been identified to match emerging opportunities in sub-Saharan Africa with resources and expertise in Mauritius.

CONTENTS OF CHAPTERS

Each Chapter in the Blueprint has been developed along the following template which has adopted a progressively descriptive, explanatory and prescriptive approach -

1. **Situation Analysis**
 - a situation analysis has been provided. It also includes a Technical Analysis of the sector.
2. **Challenges and Opportunities**
 - a SWOT analysis has been carried out for each sector
3. **Key Thrust Areas**
 - key thrust areas (drivers of the vision) that constitute the articulation point between the existing context and the projection into the vision 2030
4. **Vision for 2030**
5. **National Strategies**
 - the core of the strategies and action plans is built on **sustainability and inclusiveness**, and incorporate where appropriate the SDG goals. Short-, Medium- and Long-Term actions required to operationalise the vision have been identified and spelt out.
 - Short-Term (horizon 2020)
 - Medium-Term (horizon 2025)
 - Long-Term (horizon 2030)

Strategies and measures have been developed taking into account the aspirations of the public sector, private sector, entrepreneurs and civil society at large, based on inputs received.

TARGETS FOR 2030

Changes in the main socio-economic indicators that the Blueprint seeks to achieve are summarised in the Table below.

INDICATOR	BASELINE (2014)	TARGET FOR 2030
Annual Real Gross Domestic Product Growth Rate (%)	3.5%	5.5 - 6%
Gross Domestic Product at basic prices (Rs Million)	342,287	
Gross Domestic Product at Market Prices (Rs Million)	386,336	
GDP Per Capita	US \$ 9,630	US \$ 20,000
Public Debt as a percentage of GDP (%)	61.5%	Less than 50% by 2018
Gross Capital Formation as a percentage of GDP (%)	21.2%	
Savings as a percentage of GDP (%)	11.5%	
Percentage of population below the poverty line (relative poverty line) (%)	9.8% (2012)	
Income Distribution (Gini Coefficient)	0.4	
Population Growth Rate (%)	0.1%	0.1%
Employment by Sector	Primary (%)	8.4 %
	Secondary (%)	29.7 %
	Tertiary (%)	61.9 %
Unemployment Rate (%)	7.8 %	
Labour Productivity (Growth Rate) (%)	1.8%	
Overall Offence Rate (excluding contraventions) per 1,000 population	33.3	
Drug Offence Rate per 1,000 population	2.9	

GLOBAL RANKINGS	CURRENT RANK (YEAR)	TARGET RANK BY 2030
Size of the Economy	130 th (2015)	
Social Progress Index	36 th (2015)	
Happiness Index	66 th (2016)	
Global Peace Index	23 rd (2016)	
Corruption Perception Index	45 th (2015)	
Global Competitiveness Index	46 th (2015)	
Logistics Performance Index	115 th (2014)	
Travel and Tourism Competitiveness Index	56 th (2015)	
E-Government Survey Index	76 th (2014)	
Government Effectiveness Index	36 th (2013)	

CONCLUSION

The “transformation” of Mauritius is not a dream. It can, however, only be achieved through conscientiousness, commitment to excellence, discipline, hard work and the desire to seek new knowledge, skills and attitudes. The rapid transformation of Mauritius rests on a change in “**mind-set**” and the emergence of an environment conducive to foster innovation and creativity. These are *sine qua non* conditions for enhancing competitiveness and integrating the global economy.

The “Second Economic Miracle” will become a reality if Mauritius can escape the “**Middle Income Trap**”. This will only happen if the country can switch from a “*factor and efficiency-driven economy*” to an “*innovation-driven economy*”. Innovation must prevail across all dimensions including product development, process optimization, entrepreneurship development, knowledge-based services, export marketing, supply chain efficiencies and expansion of the economic space, leading to a higher growth path while ensuring inclusiveness and sustainability.

Vision 2030

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Challenges and opportunities for Mauritius

In large economies, with full value supply chains from raw materials to finished goods, policies promoting macroeconomic closure contributes to growth, job creation and stabilization of the trade deficit.

The domestic economy in Mauritius has historically been protected with tariff barriers which have been dismantled as from 2005 ahead of trade liberalization commitments. In the context of rising consumerism over the last 10 years, the balance of visible trade has deteriorated from 10 % to 25 % of GDP. During the same period an estimated 130 manufacturing enterprises have closed mainly because of their inability to compete with imports from large countries in the context of falling logistics costs, low tariff barriers and low to nonexistent non-tariff barriers. This has also caused a decline in exports from manufacturing enterprises which were producing for both the domestic and export sectors. Established SMEs in the leather, footwear, furniture and other domestic oriented sectors has shifted from manufacturing to trading activities with the resultant negative impact on employment.

With the growing trend in globalization of trade, and the shift towards mega container vessels plying the maritime highways from Asia to Europe and North America, as well as transpacific trade routes could lead to marginalization of Mauritius and other Small Island Developing States located far from these highways into the status of feeders for global logistics hubs.

With its ambition of graduating to a high income economy, Mauritius is faced with the daunting challenges of simultaneously upgrading its economic infrastructure to transition to an innovation driven economy while also developing new economic pillars centered around export of services, and the Ocean economy all of which will take time taking into consideration the current state.

The erosion of the manufacturing capacity has profound consequences in terms of loss of skills, competencies and market share taken over by competitors. In this context, a re-invigoration of the domestic oriented and MSME manufacturing sectors in the short term is the most effective route to re-industrialization, growth, job creation, and stabilization of the trade deficit.

The core strategies to support this move are to create a level playing field between trade and manufacturing, to develop and reinforce intra and inter sectorial linkages and to tap the opportunities for localization of the economy as a measure to protect against our future marginalization.

Expansion of the economic space is another core strategy which will build on the export of services and the Africa strategy to provide opportunities to local enterprises including MSMEs to expand, generate and capture value.

This section will be further developed after the budget presentation

POPULATION DYNAMICS

SITUATION ANALYSIS

The population of the Republic of Mauritius in December 2015 was 1.263 million and will increase to 1.265 million by 2024. Thereafter, it will decrease to reach 1.256 million by 2029. Statistics show that, over the past fourteen years, Mauritius has already adopted an ageing trend. The ultimate result is that the number of working age citizens will further decline, as older Mauritians retiring will outnumber younger ones starting work.

Fertility rate, life expectancy and international migration are major demographic factors accounting for such a changing age-structure. The fertility rates have been on the decline, from 1.99 in 2000 to an expected rate of 1.42 in 2029. Life expectancy at birth has recorded an increase from 71.60 in 2000 to 74.27 in 2014 and is expected to increase further to 76.31 in 2029, which explains the significant increase in the population aged 60 years and above as from 2024. Regarding migration, the currently available data shows a decline in the net international migration from 3,068 in 2011 to 1,850 in 2014.

In 2029, the proportion of the population under 15 years is expected to be 15.1%, those in the age bracket 15 -59 years will account for 61.3% and those above 60, will represent nearly 24% of the total population.

CHALLENGES AND OPPORTUNITIES

The Ageing Population.

The Ageing Population. The proportion of people aged 60 and above, which consistently increased from 9% in 2000 to 13% in 2015, is expected to reach 23.6% in 2029 and is an immediate concern for policy makers. The direct major consequences of an ageing population will be the following;

- An increase in dependency ratio from 412.7 in 2013 to 420.5 in 2023 and to 462.2 in 2028. In fact, the decrease in the size of the working population will definitely impact on the economy through lower output growth, declining productivity, which in turn might affect State revenue and imply either an increase in public debt or an increase in taxes or else pose a threat to the sustainability of the Basic Retirement Pension (BRP) and other support services such as day-care centres, residential recreational centres, residential homes, free transport, medical visits and health services provided for the elderly.
- There will be further stress on public finances with changes in the pattern of consumption and diseases associated with old age such as Alzheimer, dementia, Parkinson's, hearing impairment and loss of mobility. In addition, infrastructural improvement will be required to public buildings, parking spaces, public sanitary facilities, roads and pavement, transport system and housing style to render them more elderly friendly.

- Increasing vulnerability and widening inter-generation gap due to change in social behaviour and increasing number of nuclear families. Those beneficiaries, relying on BRP, are often the targets of violent robbery from persons with criminal intent or subject to abuse within their family surroundings.
- Rising incidence of poverty as increasing number of inactive elderly will have direct impact on disposal income leading gradually towards poverty.

Other Implications: The children and the working population are the other two sections of the population that will face the implications of a changing age-structure. They are summarized as follows:

- The downward trend in the fertility rate will bring along a decrease in the number of children aged 0-14 years and might have negative impact on the educational system in terms of the number of schools/colleges and teachers required.
- Declining population in the age-group 15-64 years can result in a shrinking workforce that may lead to a lower output growth, decreased levels of income from taxation and declining levels of productivity, amongst others.

The extension of the retirement age up to 65 years has already provided opportunities for the senior citizens to remain in the workforce and be economically active. It has benefitted many elders to maintain their standard of living, while remaining productive and contributing to the economic development of the country. However, for some specific type of jobs there are still chances whereby the elderly can work still beyond 65 years and these opportunities need to be looked into.

KEY THRUSTS AREAS

There is need to review the current social protection system to make it more sustainable over the long period.

With an ageing population, Government will have to come up with appropriate policies in the fields of health, social protection and security to cater for the special needs of the elderly. In addition, appropriate measures are needed to promote the welfare of the elderly by reducing the inter-generation gap and promoting their security at all levels.

The active population aged 15-65 years will have to become more productive to offset the increasing dependency towards the elderly. Development of knowledge Process outsourcing (KPO) activities in areas like Legal Process Outsourcing, Medical transcription and online personal coaching can enable retired persons with a legal background and experience, retired nurses and retired teachers to operate from home on outsourced services from developed countries. This offshoring of retired human resources can enhance revenues of this age group, reduce their dependency, keep them mentally active while enabling them play their social roles. Their displacement from the on shore economy will also create economic space for those near retirement to be more active.

Declining birth rate being the main cause of the change in age-structure, measures should be initiated to reverse the declining trend.

VISION 2030 – IMPROVE THE LIVING CONDITIONS OF ALL.

The living conditions of all the Mauritians in all age-groups will improve with the creation of an enabling age-friendly environment by 2030. It will be a place where the needs of all the sections of the society will be catered for. The inter-generational gap will be reduced and the elderly/disabled will receive due respect and care from the younger generation. The economic situation will be improved to satisfy the needs of all. People will feel more secure as crime rates would have been reduced.

NATIONAL STRATEGIES

Short- term

- Ensure pension sustainability through the modernization of the social protection system to ensure efficiency, ownership, and labour market participation.
- Encourage the current working population, especially those self-employed, to save in contributory pension schemes to supplement their income on retirement.
- With regard to the impending decline in population, measures for attracting the Mauritian diaspora are already under way. Introduce other family support schemes to increase the fertility rate to reverse the declining trend and provide better opportunities to encourage qualified young professionals to stay in the country.

Medium-term (Care for the elderly)

- Review Legislation to provide employment opportunities in specific fields to elderly persons.
- Reduce poverty among the elderly persons through rationalizing and consolidating the existing income support schemes for elderly persons such as carer's allowance. Where possible, encourage employers to recruit elderly persons in specific fields.
- Introduce policy measures to provide all the necessary infrastructure, medical facilities and security (in public places and day-care centres) to allow the elderly to live in dignity and safety.
- Train and empower senior citizens to use effectively the latest communication technologies to adapt to the fast changing technological environment.
- Encourage the physically able to engage in economic activities and to interact with the youth with the aim of bridging the intergenerational gap and transfer of values, more specifically through mentoring of young entrepreneurs by retired experienced people.
- Introduce dedicated Apprenticeship Schemes in trade like Furniture making to enable retired master craftsmen to transfer their know-how to young unemployed apprentices over a period of five years to lead them to a status of fully skilled entrepreneurs.

Long-term

- Improve the living conditions of the children aged 0-14 years through the provision of adequate health and nutrition education at school level.
- Organise sensitisation programme on moral values and societal ethics

LABOUR FORCE AND EMPLOYMENT

SITUATION ANALYSIS

According to Statistics Mauritius, labour force in 2015 was estimated at 584,600, comprising 353,300 males and 231,300 females. Total employment was 538,300, which included 333,800 males and 204,500 females. The total number of unemployed was 46,300, consisted of 19,500 males and 26,800 females. The unemployment rate was 7.9%, with a relatively low unemployment rate of 5.5% among the males compared to 11.6% among the females.

The rising trend of unemployment over the years is a major concern for Government. Over the last five years, the unemployment rate has fluctuated around 7 -8 percent and is more prominent among the youth and women. Out of the 46,300 unemployed in December 2015, it is noted that more than half of the unemployed males are in the age-bracket 16-24 years, whilst a larger proportion of females than males are in the 25-49 age-group and both categories are low-skilled. With regard to those with tertiary level of education, the fields of qualification are either too saturated (e.g medicine, finance, management, law) or are too academic.

CHALLENGES AND OPPORTUNITIES

Skills Mismatch: Inadequate planning of human resources over several years has led to an imbalance in demand and supply resulting in a mismatch of skills. Mauritius can no longer rely on a pool of cheap labour of the 1970s with which it started light manufacturing industries and built its reputation in the textile sector. Furthermore, the shortage of skilled labour in the manufacturing sector has an adverse impact on productivity. Absence of quality training, apprenticeship and reluctance of local workers to work on shop floor are factors that are worsening the situation.

There is a disconnection between the education system and the labour market requirements. The formal and non-formal education sector has lagged behind the requirements of a fast developing landscape guided by new technologies and fierce competition. The education system has, so far, been creating job seekers and not entrepreneurs.

On the other hand, there is a tendency among young professionals studying overseas to stay abroad. Although the data on unemployed professionals and graduates is not a true reflection of the situation, as many do not register themselves, there is evidence that a significant number has migrated mainly due to lack of job opportunities in Mauritius and to unattractive salaries and benefits. This brain drain deprives the country of required skills.

Influx of foreign workers: Apart from lack of skills, skills mismatch and attitude to work, there is also a definite preference among Mauritians to work in a secured environment, preferably in the public sector. Against this backdrop, employers have had recourse to foreign labour, the number of which is estimated

to have consistently increased from 23,000 to 28,300 during the period 2011 to 2015. The Ministry of labour, Industrial Relations, Employment and Training, has issued 36,800 Work Permits, around 80 percent of which was in the Manufacturing sector, followed by the Construction sector.

High Concentration of Unemployment among the youth. The majority of the unemployed youth aged 16-24 years have a low level of academic background, which is an obstacle for training on sophisticated equipment. Furthermore, the youth, especially the computer literate, are more selective and choosy in their search of employment and shun those requiring hard labour and odd working hours.

High Unemployment among females Female unemployment constituted 56.7 percent of total unemployed in 2015. Low-skilled females in their forties or more, who have most probably been laid off due to closures, may not meet the requirements for other jobs or may be reluctant to opt for jobs, which may in their opinion, be too demanding.

Regarding educational attainment, the percentage of female unemployed with secondary level of education decreased from 63 percent in 2010 to 55 percent in 2014. On the other hand, those with tertiary level of education increased from 7.1 percent to 22.3 percent over the same period implying that there are more women with higher levels of education seeking employment.

Inadequate increase in Productivity compared to increase in Compensation: During the period 2005 to 2015, average annual compensation of employees increased by 6.6 percent, whilst labour productivity grew by 2.7 percent. It resulted to an increase in the Unit Labour Cost and led to the closures of many exporting enterprises with many workers becoming redundant.

Steps have been initiated with a view to promoting the employability of the unemployed through the formulation of the following schemes:

- The Youth Employment Programme (YEP), offers placement with training for youth aged 16 – 30 years for a duration of 2 years on an equal cost sharing between Government and the employer. Some 13,278 persons have already been placed as at December 2015
- The Dual Training Programme (DTP) - offers training with placement leading to a diploma or a degree over a period of 2 to 3 years. The number of trainees recruited as at October 2015 is 94
- The Back to Work Programme (BTW) - is intended for women above 30 years of age willing to take up or resume employment. The total number of women registered with the programme as at October 2015 was 400, out of whom, 112 were placed.
- Graduate Tertiary Education Scheme (GTES) is aimed at providing graduates with reconversion courses for a duration of up to 12 months. So far, 772 graduates have showed interest
- The ICT Skills Development Programme (ISDP) is aimed at providing opportunity to the youth aged 16-30 years to undergo training with placement in the ICT sector. The total number of youth registered as at October 2015 was 3,704 out of whom, 1,942 were placed.

Appropriate steps have already been initiated, through the setting-up of 'MyBiz' as one-stop shop for inculcating the spirit of entrepreneurship among the unemployed and thereby promoting the

development of SMESSs. A strong sensitization exercise is required to attract the young unemployed to this Scheme.

The Circular Migration concept also provides employment opportunities for the unemployed in foreign countries, where there are shortages of labour in specific skills. Mauritius has signed bilateral agreements with countries like Canada, France and Italy for providing employment opportunities on a contractual basis. However, it is absolutely important to have a pool of adequately trained human resources to benefit from such opportunities.

The African countries in the context of the ‘Africa Strategy” and the Saudi Arabian countries are also providing employment opportunities for professionals in the services sector such as Tourism, Engineering, Medicine, Financial Services and ICT, which could be fully exploited.

KEY THRUST AREAS

- Shortage of skilled workers in the Mauritian labour market, especially in the manufacturing sector, which is a major employer of the work force, is a major matter of concern to be addressed urgently. Employers affirm that such labour shortage has an additional adverse impact on productivity and seriously hinders performance and growth of the sector.
- Reduction in unemployment among the youth and the females should be an immediate concern.
- Productivity should be enhanced in all spheres of activities for the Mauritian economy to become more competitive at the national and international levels. Training needs should be reviewed and appropriate programmes be designed in new skills, expertise and technology for improving productivity.
- An accurate assessment of the current and future skills requirement of the entire economy should be undertaken through improved coordination between the public and private stakeholders.

VISION 2030: MOVING TOWARDS FULL EMPLOYMENT

- By 2030, all Mauritians WILL have access to gainful and decent employment and will work in a safe and conflict-free environment. Flexible working hours and work from home will be operational and measures will be introduced to encourage work and family balance. Labour will be multi-skilled and committed to excellence and enhanced productivity to maintain our competitiveness. The Mauritian label will be synonymous with quality and zero defect and innovation will be promoted to encourage the setting-up of Small and Medium Enterprises in the majority of most fields of production and services.
- The introduction of portable pension schemes, medical and other insurance schemes will encourage the mobility of labour and will bring along a change in mindset with regard to security

of employment. It will also generate a culture of work and quality of products and services, which together with our legendary sense of hospitality, will be the trade mark of Mauritius.

- Manpower Planning will be a continuous and proactive exercise with the participation of the public and private sector, including SMEs to ensure that formal education and training are geared towards meeting the country's labour requirements. The services of expatriates will be sought for technical assistance to introduce new products and provide continuous state of the art of training to the workforce at all levels.

NATIONAL STRATEGIES

Short-Term

- Establish a National Employment Agency (NEA) at the Ministry of Labour, Industrial Relations, Employment and Training to
 - Devise a searchable online Central Data Base of all unemployed persons in the country, including unskilled, skilled, professionals and technical.
 - Ensure better coordination and complementarity among the existing schemes for promoting employability.
 - Give priority to the real unemployed for placement in industries and training programmes.
 - Urgently re-visit the Apprenticeship Scheme to have a pool of master craftsperson entrepreneurs in specific trades.
 - Assess the current and future manpower requirements in different sectors.
- Merge the Mauritius Institute of Training and Development (MITD) and the Human Resources Development Council (HRDC) into a single Entity and operate under the NEA for more efficiency.
- For the public sector, all ministries to provide a list of funded vacancies to the Public Service Commission for necessary action within a period of six months after the Budget.
- The Civil Service College to introduce innovative training programmes geared towards improving productivity at all levels in the public sector.
- Streamline the activities of institutions like the National Productivity and Competitiveness Council (NPCC) to focus more on innovative means for improving overall productivity in the economy.
- Within the context of the Circular Migration or G to G Agreements, create a pool of foreign specialized professionals locally to provide training on updated and sophisticated methods of production to the local people, who are either unemployed or in-employment to enhance productivity.
- Through the G to G Agreement with selected Sub-Saharan African countries, initiate action to create an enabling environment for professionals to migrate temporarily to those countries in need, to provide technical assistance in areas like entrepreneurship, quality enhancement schemes, ICT and other service sectors with a view of promoting the concept of "Made by Mauritius".

Medium-Term

- Appropriate measures should be devised to ensure permanent placement of trained unemployed of the Youth Employment Programme (YEP) in demand-driven enterprises.
- Students with tertiary level of education in saturated areas, should be provided with tailor-made crash courses in fields with high job prospects.
- MyBiz to exploit fully the entrepreneurial culture through the concept of “Île Maurice Nation d’Entrepreneurs” among the unemployed youth.
- Promote female employment through the formulation of supportive labour legislation such as flexible working hours, “work from home” scheme and incentives for setting-up crèches. Provide additional incentives to encourage women to join the “Back to work” scheme.
- Introduce a proper manpower planning exercise in both the public and private sector to determine the future manpower requirements in specific fields. It will be of particular importance for the public sector to avoid excessive payment of overtime.

Long-term

- Transform the tertiary level of education into a world-class quality education system to ensure that the education curricula and syllabi are more aligned with labour market requirements locally and overseas.
- Encourage life-long learning among the Mauritians to make them globally competitive.

REDUCING INEQUALITY AND ERADICATING POVERTY

SITUATION ANALYSIS

Mauritius is a welfare state that provides free and essential public services including health and education, as well as universal basic pensions and social protection nets to assist the poor and the vulnerable segments of the society. The Social Protection system of Mauritius comprises more than 30 social assistance programmes, amongst which are: Basic Retirement Pension, Income Support on rice and flour; Subsidy on cooking gas; Assistance for SC and HSC examination fees; Social Aid scheme; Conditional Cash Transfer to raise school attendance; Casting of Roof Slab Grant Scheme; Scholarships for Higher Education to needy families; and other social programmes implemented by the National Empowerment Fund.

Absolute poverty is insignificant in Mauritius compared to other parts of Africa, but there exists a minority of poor households, (12,000 households in 2015), most of them living in pockets of poverty, and earning monthly income not exceeding MUR 6,200. Overall, an estimated 9.8 percent of Mauritians (34,000 households) live in poverty (using relative poverty as a proxy) whilst the rate of extreme absolute poverty (measured by the international poverty line of USD 1.90/day [PPP]), which used to be below 1%, has exceeded the 1% mark in 2014. (*UNDP, Draft Marshall Plan against Poverty, 2015*). Income inequality has also been on the rise during the past ten years, increasing from 0.37 in 2001/2002 to 0.44 in 2014.

For the past years, the private sector has been engaged in the social development of the country, mostly through the corporate social responsibility (CSR) initiatives. Since 2009, private sector corporations have been required to establish a CSR Fund, equivalent to 2 percent of their taxable income, with the objectives to implement specific social and community projects in areas of health, education, environment, social housing and infrastructure. In 2015, the CSR practice has been reviewed along the *parrainage* concept, where the private sector organisations adopt selected households in pockets of poverty with the responsibility to empower the vulnerable families and getting them out of the vicious circle of poverty.

POVERTY AND INEQUALITY

Notwithstanding the plethora of support services and social programmes/projects provided, poverty and inequality continue to represent key developmental challenges on the social front.

Poverty

- In 2012, 9.8% of the population (approx. 122,700 persons) lived on less than Rs 5,652 per month (the relative poverty line) compared to 8.5% (i.e 105,200 persons) in 2007. (**HBS 2006/2007 and**

HBS 2012). Poverty is more prevalent amongst women especially in households headed by females, and among the youth with low educational attainment.

Table 1: Relative Poverty Rates and numbers, Republic of Mauritius

	2001/2002	2006/2007	2012
Poverty Rate(households) [%]	7.7	7.9	9.4
Poverty rate (persons) [%]	7.8	8.5	9.8
No. of poor households	23,700	26,100	33,600
No. of poor persons	93,800	105,200	122,700

Source: Statistics Mauritius, HBS 2001/2002, 2006/2007, 2012

Inequality

- The share of income going to the lowest 20% of households has decreased from 8.1% in 2001/02 to 6.1% in 2012. On the other hand, the share of income of the highest 20% of households has increased from 41.2% in 2001/02 to 46.9% in 2012. The lack of progress towards income equality is largely explained by the widening differences in salaries, and poor targeting of social benefits resulting in errors of inclusion and of exclusion.
- The majority of the poor and the vulnerable groups find it difficult to build their capabilities and climb up the social ladder, and hence are trapped in poverty. Skills mismatch has aggravated the situation. Those who do not have a permanent employment are in the poorest two deciles of the population.

In 2012, the poverty rate of households headed by either unemployed or economically inactive persons was 14.1 percent, compared to 7.3 percent among households whose heads were employed. Over 50% of unemployed women and around 60% of the youth are disproportionately affected by poverty (SM, Poverty Analysis report, 2012).

Profiles of the Vulnerable Families

Low level of education and lack of skills, are major constraints in securing decent jobs and permanent jobs. Some of these people continue being dependent on social aid. It is, therefore, crucial to provide opportunities to those families by implementing empowerment programmes for the poor to be active contributors to the wealth creation process. This will require concerted effort from the Government, the private sector and the civil society.

CHALLENGES AND OPPORTUNITIES

Inaccurate targeting resulting in errors of inclusion and exclusion

- Some social programmes are also not sufficiently pro-poor, very often targeting the population at large, rather than people living in poverty. (e.g Free Transport)

Fragmentation of the social protection system

- Most of the social programmes lack a uniform eligibility assessment mechanism, which again result in large errors of both exclusion of potentially eligible beneficiaries, and inclusion of ineligible ones (i.e. the non-poor). This issue is being addressed to some extent with the establishment of the Social Register of Mauritius (SRM).

Lack of M&E culture and no impact assessment

- Monitoring and Evaluation (M&E) of social protection are lacking at the levels of institutions, policies, programmes and the social protection system. There is, practically, no systematic monitoring and evaluation of most of the social protection/poverty alleviation programmes. The culture of monitoring progress, reporting on results and evaluating government initiatives and other social programmes, is weak across all sectors (i.e. government units, private sector and in NGOs. The lack of M&E is a major hindrance to informed policy-making and design/review of programmes.

Lack of institutional capacity

- The NEF, the implementation arm of the Ministry of Social Integration and Economic Empowerment, has been facing numerous capacity constraints, namely, high staff turnover, lack of in-house technical capacity, no impact assessment or M&E culture, and lack of accountability.

KEY THRUST AREAS

In line with the Sustainable Development Goals 1 to end poverty in all its forms and to reduce inequality, Mauritius should aim for a society that pledge for parity and equity regarding provision of basic needs and in accessing public services. Social interventions aimed at improving the livelihoods of all should ensure, *inter alia*, the following: access to (i) education, (ii) affordable housing and social infrastructure in deprived areas; (iii) enhancing skills through training and placement; and (iv) income-generating activities for a minimum acceptable standard of living for each Mauritian.

VISION 2030- INCLUSION AND EMPOWERMENT OF THE POOR IN ALL SPHERES OF SOCIETY: POLITICAL, ECONOMIC AND SOCIAL WITH A VIEW TO ERADICATING POVERTY LEVELS AND REDUCING SOCIAL INEQUALITY.

NATIONAL STRATEGIES

The aim is to eradicate absolute poverty by targeting those 3 percent of the population living under the international poverty line. The target groups will normally include the 12,000 families already registered on the Social Register of Mauritius. Most of these families live in pockets of poverty, and do not earn monthly income exceeding MUR 6,200.

SHORT TERM

Enhanced access to education can be considered as the first pillar to contribute in eradication of absolute poverty. The problem is that some families are locked in a poverty trap: disadvantaged children are poorly educated, as role models from their senior are missing especially in cases where the parents have socially dysfunctional attitudes and behaviours, or in environments not conducive to a proper upbringing (divorced parents, areas deprived of basic amenities etc.).

Special schools will be set up for children from disadvantaged backgrounds especially where the parents tend to abdicate responsibility for their proper upbringing.

Improve design of social programmes, targeting the poor and vulnerable ones and paying sufficient attention to the long term impact on the beneficiaries, conditionalities and exit strategies. Interventions have to be focused on processes and impact. For example, some of the training courses provided by the Ministry of Women Empowerment do not really address the need of the labour market by providing gender stereotypes women training in areas like embroidery, tailoring, and other.

Harmonisation of social protection programme and enhancing institutional arrangements and capacity for delivery of social protection services as well as an integrated approach to social protection provision through the Social Register of Mauritius (SRM).

The use of the SRM, a centralized database of social programme beneficiaries, will be extended to other pro-poor programmes for managing social programmes in an integrated manner and better harmonizing the criteria for the different social programmes run by different Ministries

Implement the Minimum Wage policy with a view to addressing the issue of income inequality. The Introduction of the Minimum Wage will help in addressing the issue of unskilled or semi-skilled unemployed not willing to join the lower growth sectors: agriculture, fisheries, and manufacturing.

Promote a culture of entrepreneurship- Government intervention will be targeted at providing an enabling environment for the unemployed women and youth to get involved in income-generating activities.

Supply of affordable housing and other social infrastructure (roads access, children playgrounds, learning corners, crèches, etc) with a view to improving the livelihoods of families living in precarious conditions and in deprived areas.

Restructuring of the National Empowerment Foundation (NEF) to address the capacity constraints and for smooth implementation and follow-up of social programmes.

MEDIUM TO LONG TERM

The proposed sector strategies for the medium to long term are:

- **A medium to long term Marshall Plan Against Poverty elaborated**- to implement the Marshall Plan to combat poverty and social exclusion.
- **Paradigm shift from social assistance to social empowerment**- through the creation of decent employment with adequate remuneration.
- **Enhanced use of the SRM and promoting a culture of Monitoring & Evaluation and** at all levels of institutions, policies and programmes to follow progress and evaluation on government initiatives in order to take informed policy decisions. In the long run, streamlining the social protection provision and making it more pro-poor and more cost-efficient though the SRM, will improve targeting efficiency and minimize leakages to non-poor and under-coverage of the poor. Also, the SRM has the potential to become a key source of data on poverty dynamics in the country, which would be useful for policy analysis.
- **A Minimum Wage as the income threshold to target eligible beneficiaries.** In the medium to long term, the minimum wage may also serve as the minimum threshold to determine the eligible groups and also the type and level of support needed to keep everyone above the same threshold.
- **Employment and Entrepreneurship**- Policies addressing unemployment and reducing income inequality, e.g providing training and investment in skills development, schemes for development of entrepreneurship has to be reviewed and adapted with changing environment and emerging challenges.

GENDER

SITUATION ANALYSIS

In 2014, women represented an almost equal (50.5%) proportion of men in the population, but the Inequality-adjusted Human Development Index (IHDI) shows that human development is not equal for men and women in terms of the distribution of health, education, and income; an inequality that caused a loss in human development of 14.2%. Life expectancy at birth for females is higher than that of males, 78 years compared to 70.9 years, while expected years of schooling and mean years of schooling are 12.6 and 8.7 for females and 12.4 and 9.1 for males, respectively. The highest gender disparity is in GNI per capita which was PPP\$10,541 for females and PPP\$24,582 for males.

Moreover, there are gender-based inequalities across reproductive health, empowerment, and economic activity. For every 100,000 live births, 73 women die from pregnancy-related causes. The adolescent birth rate is 30.9 births per 1,000 women aged 15-19, more prevalent in low-income groups, and causing girls to drop-out of school. **Mauritius is among the 5 Southern African countries with the lowest percentage of women in Parliament with 11.6% of parliamentary seats held by women.** The situation is gradually changing; **for the first time in our political history, the President of the Republic and the Speaker of the National Assembly are women.** Further, almost 50% of adult women have at least a secondary level of education compared to 58% for their male counterparts. **Female participation rate in the labour market is 43.6% compared to 74.2% for men.**

Labour market inequity is also evidenced by higher unemployment rates and large wage gaps. The gender wage gap undermines female labour market participation, and may undermine the favorable secondary and tertiary education enrollment rates attained in recent years. Cultural factors such as marriage and family size, play an important role in determining female labour force participation rate. A married woman has around a 40 percent higher probability of being out of the labour force than a married man and as family size increases so does her chance of being inactive. These probabilities decrease with higher education levels. The high unemployment rate and lower labour participation rate are associated with poverty. Female-headed households face consistently larger poverty rates in comparison to male ones.

Another issue to be addressed is the plight of women in terms of unpaid work and domestic violence. Unpaid care work influences gender gaps in labour outcomes. According to a survey carried out in 2003, women spend 277 minutes per day in unpaid work compared to 73 minutes by men, usually alongside their paid work. The unequal distribution of unpaid care work between men and women brakes economic empowerment. Outsourcing unpaid care activities is not an affordable or realistic option for many women. Furthermore, notwithstanding the fact that domestic violence is a social and moral issue, its effects spill into the workplace causing loss in productivity. **About a quarter of women in Mauritius have experienced some form of gender-based violence at least once in their life.**

CHALLENGES AND OPPORTUNITIES

The challenge is to address the issue of high unemployment among women and the gender wage gap which is high and is even widening. Even controlling for the same level of education, age, potential work experience, and sector, women still earn around 50% less than men. Labour market institutions are constraining the capacity of the economy to create jobs, and reinforce gender inequity. Despite changes in the labour regulations, wage determination depends heavily on the non-market forces and collective agreements.

Furthermore, a sharp increase in skill mismatches characterizes the labour market. In the decade to 2010, skill mismatches increased by almost 30%. The mismatches are growing with increasing demand for skilled labour.

Women will continue to represent around 50% the population in 2030, a potential pool of talent to tap on to unleash economic growth. As policies are adopted to develop a more diversified economy with a focus on higher value-added production, faster export growth, and expanding economic space, there will be more opportunities for women to participate in a supportive labour market. Training, education, and better human resource development will foster higher labour productivity, while labour market reforms to address the gender wage gap will provide the opportunity for women to increase their participation in the labour force.

The participation of women in the labour force will reduce the economic dependency ratio and will have positive effects on transfer payments.

KEY THRUST AREAS

- Strengthen women's economic empowerment and promote access to employment, appropriate working conditions and control over economic resources
- Ensure women's full and effective participation at all levels of decision-making
- Provide business services, training and access to markets, information and technology
- Promote harmonization of work and family responsibilities for men and women
- Recognize and value unpaid care

VISION 2030

Our vision for 2030 is aligned to SDG5 that is to achieve gender equality and empower all women and girls. We shall end discrimination against women in particular in the labour market, eliminate domestic violence against women and girls, recognize and value unpaid care, and ensure women's full and effective participation at all levels of decision-making. Our target is to increase women's labour force participation rate to 50% by 2030.

NATIONAL STRATEGIES

Labour force participation is influenced by short- and long-term factors. In the short-run, it responds to wages and general unemployment levels. In the long-run, it fluctuates with cultural expectations and roles, incentives and institutional rules set in the labour market, education, and labour productivity.

SHORT TERM:

- Review labour market institutions and policies to address the gender wage gap
- Target the unemployed to develop skills through education and training to match the labour market needs
- Encourage women entrepreneurs:
 - Improve access to capital through positive discrimination schemes, in fields including agro-industry, recycling, tourism, and wellness
 - Develop networks of women entrepreneurs at regional and international levels who can act as mentors and business angels to local entrepreneurs
 - Expand business and management training, particularly for low-income women
- Enforce legislation and increase accountability of perpetrators of domestic violence against women
- Strengthen inter-agency cooperation on domestic violence
- Continue to raise awareness among medical practitioners on domestic violence and provide measures for early identification and intervention

MEDIUM TERM:

- To encourage women entrepreneurs, designate at least 5% of government contracts to go to eligible women-owned small businesses by 2030
- Strengthen family-friendly working policies:
 - widely accessible and improved quality day-care and pre-school services as well as out-of-school care services for children will be provided
 - Extend leave arrangements for parental leave for exclusive use of fathers
 - Encourage flexi time and work from home scheme for parents, made possible through technological innovation
- Promote the inclusion of a quota for women in political parties and for elections
- Local governments to ensure the full participation of women in all political processes, through gender-sensitive participation and engagement, with a target of 50% gender parity by 2030
- Strengthen specialized support services for victims and their children to protect and help victims rebuild their life

LONG-TERM

- Promulgate legislation for women to have at least 30% representation in Parliament by 2030

AGRO INDUSTRY

SITUATION ANALYSIS

The agricultural sector comprising sugarcane plantation, foodcrop and livestock production as main activities, contributed to 3.0 percent to GDP in 2014 out of which the food crops and livestock sub-sectors contributed 1.5 percent (SM 2014).

In the Island of Mauritius, the food crop (excluding sugar and tea) and livestock sector occupied a total area of 64,683 hectares out of which, 83 percent were used by the non-household sector and 17 percent, by household type farms. In the non- sugar and non-tea farming sectors, there is a skewed distribution with only 90 non- household farms and 18,260 household type farms, out of which 15,636 are commercial household type farms in the livestock and food crop sectors the balance being small backyard type farming.

Mauritius is nearly self-sufficient in the production of fresh vegetables, poultry and eggs, and local fruits. Nonetheless, food imports represent 75 percent of its total food requirements, most of which are staples (rice and wheat), fresh fruits, meat and dairy products, amongst others

The food import bill has increased by more than 35 percent over the last 4 years standing at MUR 38 billion in 2014 compared to MUR 28 billion in 2010. The growth in demand which must also be correlated to higher tourist arrivals, has been driven by processed and ready to eat foods.

The growing trend in imports of livestock-based products for MUR 6.1 billion and that of fruits and vegetables for MUR 3.03 billion in 2014 shows the potential of import substitution by local sustainable and quality certified products.

Sugarcane, once the sole export of the country, currently represents only 0.8 percent of GDP (SM 2015). The contribution of the sugarcane industry is now largely based on production of renewable energy from bagasse, ethanol and molasses. Tea production with some 700 ha is being relaunched with foreign expertise.

From 2001-2015, there has been a reduction of 25% of the land area under cane cultivation, mostly by small planters.

Trend in Abandoned Sugar Cane Land - 2001 to 2015

Year	Area Under Cane Cultivation	Area Harvested	Abandoned sugarcane land
	(Ha)	(Ha)	(Ha)
2001	77,321	72,087	5,234
2002	76,363	71,482	4,881
2003	75,563	69,995	5,568
2004	74,970	68,745	6,225
2005	73,267	67,404	5,863
2006	71,499	65,243	6,256
2007	69,831	63,188	6,643
2008	68,002	60,381	7,621
2009	65,859	59,108	6,751
2010	63,780	57,670	6,110
2011	62,000	55,777	6,223
2012	60,378	53,428	6,950
2013	59,370	52,312	7,058
2014	58,312	49,791	8,521
2015	57,424	51,694	5,830

Source : *SIFB, Survey Report on Abandonment of Cane Land, 2010, subsequently updated*

CHALLENGES AND OPPORTUNITIES

There is intense pressure on land resources, owing to competing uses from the tourism, infrastructure, industrial, solar photovoltaic farms and housing sectors as well as the development of the Integrated Resort Schemes, Real Estate Schemes, shopping malls, technoparks and smart cities. Therefore, the land use policy should take into consideration the preservation of prime agricultural land to maintain the allocation of this scarce resource to sustain agricultural production to meet domestic demand and contribute towards food security.

Weaknesses inherent in the current agricultural practice include: intensive use of chemical fertilizers and pesticides; water-inefficient overhead irrigation methods; slow pace of adoption of new technology; new pests and diseases; ageing farming community and lack of interest in farming from the younger generation; slaughter houses not operating according to required norms; lack of marketing infrastructure

and information gap between the support institutions and the farming community. Change in climatic conditions with higher frequency of extreme weather events, changing rainfall pattern and sea level rise will increase the vulnerability of the farming/planters community.

As regards the livestock sector, it is not competitive even when being operated on a larger scale as it is not well regulated (existing legislation being outdated) and given the possibilities to import live animals, meat and milk products at cheaper prices. Incentives schemes to boost the sector have not been effective. This calls for a new livestock model based on circular economy for recycling of wastes.

In spite of growing demand for food from rising affluence and tourism, the local agro industry, particularly the small holder commercial farmers are facing increasing difficulties to integrate food supply chains.

The status of sustainable agriculture in Mauritius today is that it faces fundamental and multiple challenges in terms of degraded soil fertility, lack of organic fertilizer inputs, poor knowledge of sustainable agricultural practices at the level of small commercial farms and poor linkage between these farms to demand and markets.

Loss of soil fertility through intensive and prolonged use of agro chemicals eventually affects crop yields. Restoration of soil fertility with organic compost and manure provides for green business opportunities and it represents *a sine qua non* for shifting to organic cultivation. In addition, the application of innovative farming techniques and use of new technologies is likely to make agriculture attractive for the young farmers/entrepreneurs to venture into the sector.

The Sustainability Dimension of Agriculture is not restricted to restoration of soil fertility with organic manure and compost as a means of carbon sequestration, but also include agro-forestry management and Fruit tree orchards to restore biodiversity and also sequester carbon.

As regards the sugarcane sector, the abolition of the EU sugar quota would imply operating without a safety net in a market more open to competition from larger countries such as Brazil and Australia. **Being one of the resistant crops on the island, sugarcane holds an important place in the ecology of Mauritius.** Extensive cultivation of sugarcane throughout the island is considered a major factor in the prevention of soil erosion. Sugarcane as a source of firm power renewable energy will continue to play a strategic role in the energy mix and the objective of meeting 35 % of the energy demand from renewable sources.

Production inefficiencies, supply chain deficiencies and market forces may lead to marginalization of small food crop and livestock small holder farmers. The challenge lies in identifying appropriate and sustainable models for these sectors to survive and enhance their contribution to the economy.

The formulation and validation of a sustainable agro-industry business model for small holder farmers could be an opportunity for small cane growers in the medium to long term.

KEY THRUST AREAS

More specifically, the agricultural sector will be re-engineered into an agro-industry with a view to:

- Increasing the efficiency and profitability of the food crop and livestock sectors through grouping of small holder farmers
- Rendering Agro Industry more attractive for young entrepreneurs through technology and value added processing
- Switch to sustainable practices and conform to eco labelling standards
- Consolidation of the sugar cane industry by enhancing the value addition to biomass.

VISION FOR 2030 – A ‘CLIMATE-SMART’ AND ‘NUTRITION SENSITIVE’ AGRICULTURAL SECTOR

In 2030, the agricultural sector transformed into an agro-industry will focus on high value production for an enhanced food security and safety as well as environmental sustainability. This long-term objective is aligned with the SDG 2-‘ *end hunger, achieve food security and improved nutrition and promote sustainable agriculture*’.

NATIONAL STRATEGIES

To achieve its vision for agriculture, the proposed ‘National Strategies’ for the sugarcane sector and the non-sugar cane sector are as follows:

SUGARCANE SECTOR

As mentioned in the Government Programme 2015-2019, the aim is to make a sustainable and financially viable cane industry by encouraging diversification into ethanol production, sucro-chemicals and other byproducts. In addition, small planters will be provided with technical guidance and logistical support with the objective of increasing their revenues from cane production, bagasse, and other crops.

SHORT TERM

- Addressing the production constraints to ensure sugarcane area is maintained, will require policies for:
 - land use policy to maintain prime sugar cane land under cane cultivation
 - Addressing the issues of availability of labour especially during harvesting period
- Enhancing the marketing side by further diversifying the industry e.g. production of rum
- Policy to ensure financing of cess-funded institutions is sustainable in the long run.
- Flexibility to supply different markets. In view of the possibility of a complete phasing out of preferential access to EU sugar market, to tap regional markets where Mauritius benefits from duty preference e.g. through the COMESA and the SADC. Some African countries like Kenya, Tanzania and Madagascar have a deficit in their supply of sugar especially brown sugar.

MEDIUM TERM

To increase energy production from the cane industry through:

- Optimal exploitation of cane biomass from high fibre cane varieties and optimal conversion technologies
- Validate the feasibility for conversion of cane leaves into ethanol (2nd generation biofuels)
- Introduce Ethanol as a part replacement for liquid fuels

LONG TERM

- Became a leading global provider of knowhow and services in sugar technology
- Use the knowhow and thermal generation capacity to promote a biomass strategy for the energy security of Mauritius.

NON-SUGAR CANE SECTOR-

The objective is to secure food supply by implementing feasible food import substitution strategies for certain crops and improve the livelihoods of small planters. This calls for strategies aiming at creating a level playing field between imports and local production, through supply chain efficiencies, eco labelling, and control of compliance of imported foods to international standards.

SHORT TERM

Sustainable Agriculture, Bio-food production and Achieving Food Security

Review the policy, legal, regulatory, fiscal, incentive and institutional frameworks for Agro- industry to compete sustainably with large corporates in the global food sector.

- To better regulate the agricultural sector (e.g registration of farmers; control of the importation of chemical products; regularize sale of chemical products); Review of Legislations (Drug Chemical Control Act 2004, Chemical Fertilizer Act)
- Revisit the functions of support institutions to harmonize their roles and avoid any overlaps in delivery of services towards the agricultural community
- Incentives (fiscal and non-fiscal): Government to adopt a strategic approach towards subsidies and other support, and review the type and extent of support required for a buoyant and productive agricultural sector. Providing the right incentives will encourage the adoption of sustainable practices; clustering of farms; exploitation of abandoned land
- Validate through pilot projects centralized livestock management systems to offer professional livestock management services, sustainably process the animal waste into fertilizer and electricity, and facilitate the conversion to eco labelling and traceability.
- Clustering of small planters upstream in the supply chain around a concept of packing house to address logistics, branding and traceability issues. The lesson learnt is that management of the packing house must be done by a specialist focusing on the logistics and distribution functions. Initiatives for an integrated approach which includes the different components of the value chain in the agro-industry, will facilitate agri-business ventures in processing food for local and export markets.

- Promoting natural farming and organic production will improve sustainable agricultural production. The farming community will be encouraged to maximize reliance on natural renewable on-farm inputs while ensuring long term environment stability and health benefits. Production of bio-food will cater for the market exigencies for quality food and to ensure food safety. In addition, to eliminate wastage in various forms, good agricultural practice according to set standards or a specified code of practice should be adopted e.g all agricultural practice to conform with at least the norms ‘MauriGap level 1’ in short term; then to graduate to ‘MauriGap level 2’ in the next phase and finally the ‘MauriGap level 3’ which will be equivalent to international standards. Eliminating wastage will contribute in achieving high crop yield, low residue levels in foodcrops, and efficient use of scarce resource (land, water etc).
- To improve food security, there is need to sustain the production of strategic crops such as potatoes and onions and promote production of other strategic crops (e.g pulses, garlic, tea, coffee, exotic fruit). This will be achieved through more access to land; introduction and adoption of new high yielding varieties; and increase in crop yields by better cultural practices, storage capacity, improved shelf life, mechanization and promotion of new technologies.

To improve commercialization of quality agricultural products through (i) setting up of a new slaughterhouse operating according to norms and standard to enable export of local meat product e.g venison, (ii) setting up of a high-tech accredited food laboratory to detect any prohibited substances or residue levels considered harmful to health

The Agriculture sector holds significant potential to help achieve the SDG on Food. However, with the weather extremes and global warming phenomenon, adaptation and mitigation strategies for climate change will have to be implemented to address issues like higher pests and diseases incidence, misbalance in plant and soil moisture, shift in vegetation zones and lower productivity in livestock sub-sector. Adaptation strategies may include: introducing crop varieties more resilient to change in climatic conditions; promoting Integrated Pest and Diseases Management; preservation of wetlands, and developing climate-smart agriculture practices for both the crop and livestock sub-sectors.

MEDIUM TERM

Modernization of Agriculture

The Modernization of agriculture would mainly be achieved through the promotion of new technologies and innovative farming techniques (e.g more sheltered farming, hydroponics, aquaponics, use of crop sensors and other ICT solutions). The agro-industry sector should be developed to provide employment not only in farming, but also in off-farm activities such as handling, packaging, processing, transporting and marketing of food and agricultural products. Research and Development in biotechnology with respect to renewable biological resources as agricultural inputs in production systems, is also crucial for the development of the sector.

LONG TERM

Sustainable Integrated Farming systems

Sustainable Integrated Farming systems (wastage from Dairy farms to be recycled into biogas for production of organic manure/compost and same to be used in fertilizing crops including fodder production, use of water harvesting/recycling, rotation of foodcrop etc.) which are about improving farming practices to reduce carbon footprints, will be set up.

Other modern and innovative agricultural practices (vertical farming, precision farming) coupled with new farming techniques, automated facilities and internet-controlled environment, (use of agbots, crop sensors, use of remote sensing) will enable cultivation of quality foodcrops in large-scale.

THE OCEAN ECONOMY

SITUATION ANALYSIS

With a view to broadening the economic base, special emphasis is being laid on the development of emerging ocean-based activities that have the potential to boost growth, and to create wealth and employment. The “**Ocean Economy**” (“**Blue Economy**”) has been identified as a major growth-enhancing sector given its significance as a source of minerals, food and energy.

Mauritius is blessed with a maritime zone of 2.3 million km² – 1.9 million km² of its Exclusive Economic Zone, and 396,000 km² of the seabed and subsoil area managed jointly with the Republic of Seychelles in the **Mascarene Plateau** area (the Continental Shelf). Under the **United Nations Convention on the Law of the Sea**, Mauritius exercises sovereign rights to living and non-living resources of the waters, the seabed and the subsoil in an Exclusive Economic Zone, and over the natural resources on the seabed and subsoil of its Continental Shelf. A submission has been made to the **United Commission on the Limits of the Continental Shelf** (UNCLCS) for an extended continental shelf in the region of Rodrigues. A similar submission will be made for the region of the Chagos Archipelago.

Given the potential of the large geographic territory, the social and economic destiny of Mauritius is inextricably linked to the sustainable management and use of coastal and marine resources in this (yet) uncharted territory. To this end, a National Ocean Council was set up in June 2015 to drive and implement projects.

The overarching goals in developing ocean-economy based activities are –

- (i) economic diversification - reduce vulnerability from reliance on a small number of existing sectors, and maximise value from the marine sector,
- (ii) creation of high-value jobs, and
- (iii) contribute to food security through sustainable utilization of marine resources.

These objectives are in line with the UN’s “**Sustainable Development Goals**” (Goal 14) which reads as follows “*conserve and sustainably use the oceans, seas and marine resources for sustainable development*”.

CHALLENGES AND OPPORTUNITIES

The intention of Government is to develop a strong ocean economy. However, only a few avenues have so far been explored, e.g. aquaculture, oyster production, tourism activities and deep sea water cooling.

The assessment of the marine resources along with the potential of emerging based industries is high on the agenda.

The commercial and sustainable exploitation of marine resources for sports, leisure, tourism, industrial and medical purposes has enormous potential. These could be exploited with the collaboration from international experts and local promoters once the necessary institutional conditions are in place, e.g. regulatory and fiscal frameworks; capacity building of local personnel and enlistment of the services of high-caliber experts; availability of data on marine resources and marine geology; territorial security aspects are in place, and availability of ancillary facilities, e.g. accredited laboratories.

In the context of developing the ocean economy as a new pillar, an “**Integrated Roadmap**” (a “**Maritime Spatial Plan**” - **MSP**) needs to be established with short-, medium- and long-term time frames. This Roadmap will provide a coherent approach to the development, management and conservation, regulation and promotion of ocean-related economic activities both in the ocean, the seabed and as onshore ocean-related services and industries, such that coordination between different sectors and actors is established, and private investors have certainty and predictability in the way forward.

The likelihood of mineral deposits and hydrocarbons in the maritime zone of Mauritius is high. Priority has to be given to the mapping and stock-taking of the seabed (e.g. geophysical surveys in the region of the Mascarene Plateau) as the discovery of hydrocarbons and deep-sea minerals is a potential “**game changer**” for the economy.

Government has a primary role to coordinate the development of various sectors, institutions and industries relevant to the Ocean Economy, the more so in the face of numerous challenges, for example –

- (i) development of institutional and legal frameworks, implementation of the necessary hard infrastructure, business development and promotion strategies, investment issues and incentives, availability of local competencies, high cost of (foreign) technical studies,
- (ii) mobilization of substantial investment flows, and
- (iii) climate change and global warming that may affect the oceans, including rise in sea level, ocean acidification, and changes impacting on the stock of fish species, as well as the marine flora and fauna.

Most importantly, the development of the legislative, regulatory and fiscal frameworks for the exploration and exploitation of hydrocarbon and deep-sea minerals, as well as for energy generation, stand as a priority.

KEY THRUST AREAS

Some of the sectors / activities identified as having potential for growth include -

- (i) Seafood related activities,

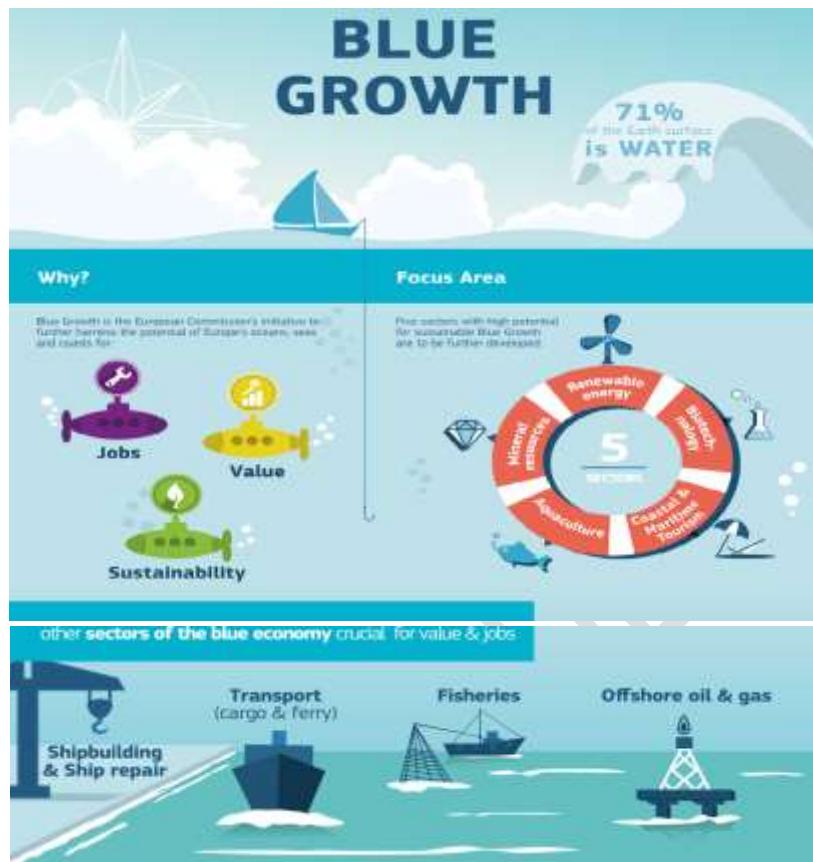
- (ii) Marine Biotechnology,
- (iii) Maritime Shipping and Transport (Trade Hub),
- (iv) Coastal and Maritime Tourism,
- (v) Offshore Extractive Industry (Seabed Mining) and Refining activities,
- (vi) Marine (Renewable) Energy and Deep Water Application Projects, and
- (vii) Marine Logistics Hub.

VISION FOR 2030

The Vision for the ocean economy sector is to tap the full potential of this asset – 11% contribution to GDP and 18,000 jobs in 2013 – to reach a contribution of **20% of GDP by 2030** (excluding hydrocarbon and minerals resources) in a phased manner. In the first phase (2020) some 25,000 jobs will be created in this sector, followed by an additional 30,000 by 2025, and another 30,000 by 2030.

The European Commission² has summarized the potential of the “Blue Economy” in the infographics as hereunder -

² European Union 2014



NATIONAL STRATEGIES

The main proposals for achieving the vision for 2030 in the ocean economy sector for the short-, medium- and long-terms are as follows -

SHORT- TO MEDIUM-TERM

- Preparation of an “Integrated Roadmap” (a “Maritime Spatial Plan” - MSP)
 - the Plan will provide an orderly, safe and rational management of living and non-living resources in the seas,
 - Government and private sector will work jointly on the roadmap, and the appropriate framework established for giving an impetus to the sector and facilitate the realization of projects,
 - the Roadmap will be supported by strong data collection and analysis,

- (ii) **Preparation of Legislative, Regulatory, Institutional and Fiscal Frameworks for -**
- (a) the exploration and exploitation of hydrocarbon and deep-sea minerals, and energy generation,
 - (b) Maritime Safety, Security and Surveillance,
 - (c) Conservation and Sustainability Programmes,
 - (d) the Maritime Zone Act 2005, the Petroleum Act 1970, the Fisheries and Marine Resources Act 2007, the Electricity Act 2005, the Central Water Authority Act 1971, the Environment Protection Act 2002 will be revised / updated to accommodate new developments in the ocean economy sector,
 - (e) new legislations will be formulated, e.g. Seabed Mineral Bill,
- (iii) **Business Development, Marketing and Promotion Activities**
- (a) Government and private sector institutions will jointly canvass potential foreign partners and investors so as to integrate the know-how, skills and finance required for the sustainable development of the sector,
 - (b) to ensure that the country obtains a “fair deal” in negotiations with multinationals,
- (iv) **International and Regional Co-operation**
- (a) given the dearth of local capacities, working relationships will be established with international and regional organisations, and renowned research institutions to secure the assistance of high-calibre experts and ensure the transfer of knowledge and expertise,
- (v) **Port Infrastructure Development**
- (a) development of a “New Port Master Plan”,
 - (b) projects
 - i. extension of container terminal,
 - ii. construction of “Cruise Terminal” – quay and building,
 - iii. construction of fishing quays,
 - iv. modernisation of cargo handling equipment to raise productivity in crane and ship productivity,
- (vi) **Coastal and Maritime Tourism**
- (a) leisure industry – develop cruise shipping / cruise tourism, marinas,
 - (b) boost the medical tourism sector with sea-based products, e.g. thalassotherapy,
- (vii) **Seafood related activities**
- (a) sector currently contributes to 1.5% of GDP and 18% of foreign exchange earnings,
 - (b) fishing, seafood processing, fishing ports
 - i. bank fisheries on the banks of the Mascarene Plateau,
 - ii. tuna fishery in the Western Indian Ocean,
 - iii. seafood processing to move up the value chain,
 - (c) fish farming / aquaculture / high-value products

- i. sea cucumber, seaweed, oyster, pearl and crab culture,
- (d) fiscal / tax regimes and innovative schemes / incentives will be elaborated to -
 - i. encourage more Mauritian vessels to fish in the country's territorial waters, e.g. to increase the fishing fleet,
 - ii. establish modern hatcheries, and acquisition of outer reef / off-lagoon fishing vessels, as well the establishment of a fishing fleet,
 - iii. semi-industrial tuna processing plants,
- (viii) **Offshore Extractive Industry (Seabed Mining) and Refining activities**
 - (a) prospection surveys for hydrocarbons and minerals,
- (ix) **Marine (Renewable) Energy & Deep Water Application Projects**
(Deep Ocean Water Application Projects - DOW technologies)
 - (a) Seawater Air Conditioning (SWAC) will provide air conditioning to industrial and commercial users (thus reducing the dependence of Mauritius on fossil fuels). First contract signed in December 2015,
 - (b) deep water for premium water bottling,
 - (c) Ocean Thermal Energy Conservation (OTEC) – Pre-Feasibility study for a 5 – 10 MW Hybrid OTEC Plant to produce electricity at 1,000 metres depth. Unlike solar or wind, OTEC is a base load electricity generation process. The secondary by-products will include aquaculture, desalinated water, water for pharmaceutical / cosmetics sector,
 - (d) Feasibility Study for "Off-Shore Wind Farms" for Rodrigues,
- (x) **Maritime Shipping and Transport (Trade Hub)**
 - (a) regional maritime hub – gateway between Asia and Africa,
 - (b) freight services – container transshipment, export of locally manufactured goods,
 - (c) regional shipping services for freight and passenger. Mauritius could lead the regional shipping initiative, and operate a corridor between Asia and Africa. The Mauritius Shipping Corporation (MSC) could operate two passenger-cum-cargo ships on the regional routes, and as much as five pure cargo ships on international routes, mainly between major ports in Africa and Asia,
 - (d) warehousing, petroleum storage and bunkering - about 30,000 ships pass by Mauritius annually, out of which about 3000 call at Port Louis. Storage facilities for petroleum products will be built to increase capacity to 400,000MT by 2025. Importation of petroleum products for bunker has been partly liberalized since January 2014. Expectation of 1.5 million metric tonnes by 2030,
- (xi) **Maritime Safety**
 - (a) appropriate legislation and logistics (offshore patrol vessels, planes and helicopters for National Coast Guard) to safeguard the territorial integrity of the country's maritime zones,

- (b) appropriate logistics for control and surveillance beyond the 15 nautical miles, as well as for dealing with man-made and/or climatic disasters that may arise with sea-based activities,
- (xii) **Research, Knowledge, Technology and Innovation and Capacity Building**
- (a) **Capacity building** - development of human and professional capacities in the maritime and related fields (Faculty of Ocean Studies at UoM),
- i. degree / postgraduate courses in the field of Oceanography, Geosciences, Remote Sensing, Petroleum Economics, Aquaculture, Fisheries, Seafood processing, Environmental Economics, Ocean Engineering, Thermal Engineering, Marine Engineering, Naval Architecture, Marine Chemistry, Maritime Law, Ocean Governance, Maritime Affairs,
 - ii. upgrade and introduce new courses for Seafarers, including hospitality sector on cruise vessels, in Nautical and Marine Engineering, at the Mauritius Maritime Training Academy (MMTA),
 - iii. training / counselling / mentoring of local registered fishermen,

MEDIUM- TO LONG-TERM

- (i) **Port Infrastructure Development**
(with the Discovery and Exploitation of Hydrocarbons)
- (a) the development of Mahebourg as a second port for activities relating to oil and gas exploration and exploitation. Mahebourg can also be developed as a terminal for jet fuel with pipelines connected to SSR International Airport, thus eliminating road transportation of jet fuel from Port Louis to Plaisance and achieving savings on cost, reducing traffic congestion and pollution,
- (b) business opportunities will open for high capacity tugs to supply oil rigs with food and other logistics, as well as a helicopter service for rotation of oil rig personnel,
- (ii) **Offshore Extractive Industry (Seabed Mining) and Refining activities**
- (a) exploration / exploitation of mineral resources (zinc, cobalt, copper),
- (b) exploration / exploitation of oil and gas,
- (c) refining activities - petroleum sector (land-based or floating oil refinery),
- (iii) **Marine (Renewable) Energy & Deep Water Application Projects**
- (a) electricity production from offshore wind, waves, tidal, and biofuels will provide energy security – expectation of 175GW by 2030,
- (iv) **Research, Knowledge, Technology and Innovation and Capacity Building**
- (a) **Marine Biotechnology**
- i. research to understand the marine resources in the EEZ,

- ii. research on seaweed/algae culture for cosmetics and pharmaceutical use, thalassotherapy, agrochemicals,
- iii. expand the mapping and stock taking of the living and non-living resources,
- iv. dedicated Laboratories (accredited) to be established for monitoring of (sea) water quality, toxic fish, marine pollution, algal bloom, etc. (Mauritius Oceanography Institute Laboratory operational at Albion),

(b) **Technology and Innovation**

- i. the emergence of (new) ocean industries / activities will only be possible with new scientific and technological innovations to exploit the ocean's resources more safely and sustainably, to make the ocean cleaner and safer, and to protect the wealth of marine resources,
- ii. Mauritius established as a “Centre of Excellence” for Ocean Knowledge by 2030 (alongside Hawaii),

(v) **Marine Logistics Hub**

- (a) marine finance, marine leasing, marine insurance, ship registration, ship brokerage, marine legal services,
- (b) marine construction - ship building and repairs, oil rig repairs,
- (c) maritime security and surveillance, maritime navigation hub,
- (d) Mauritius established as the (satellite) maritime communications hub for the Indian Ocean,



(vi) **Data / Information Availability**

- (a) establishment of one central database to be shared by all users of the marine industry given the cross-cutting nature of activities,
- (b) data on seismic surveys, geophysical data of the earth crust.

MANUFACTURING SECTOR

SITUATION ANALYSIS

The Manufacturing sector remains an important sector contributing to 16.3% of GDP and 117,000 direct employment in 2015. **Manufacturing industries** cover the production of a wide range of goods and have been classified under the following broad groups:

- (i) Sugar Milling - representing 2 percent of total manufacturing
- (ii) Food (excluding sugar) - representing 36 percent of total manufacturing
- (iii) Textiles - representing 30 percent of total manufacturing
- (iv) Other manufacturing - representing 32 percent as share of total manufacturing

The manufacturing sector is also analyzed under the following broad groups:

- Sugar milling accounting for 2 percent of total manufacturing
- Exports Oriented Enterprises accounting for 36 percent of total manufacturing
- Non-Exports Oriented accounting for 62 percent of total manufacturing

The following table provides an overview of the current situation:

	2010	2011	2012	2013	2014	2015*
% Real Growth Rate	+1.9%	+0.7%	+2.2%	+4.4%	+2.2%	+1.5%
GDP Contribution	17.0%	16.9%	16.7%	17.0%	16.5%	16.3%
FDI (MUR million)	63	669	1,597	1,020	76	24
Employment	113,600	107,500	107,400	110,900	112,200	-
Exports EOE (MUR million)	41,622	43,100	45,606	46,778	49,296	-
Value added	45,180	48,182	50,537	55,021	56,459	58,614

1. *estimates

Source: *Statistics Mauritius*

The Mauritian manufacturing sector has been affected mainly by global competition, low productivity, rising costs in terms of industrial land prices, energy, logistics and an acute shortage of cheap labour; economic downturn in major traditional markets; low level of innovation and technology; the development of new global trade partnerships like Trans-Pacific Partnership Agreement; and decreasing Foreign Direct Investment (FDI).

CHALLENGES AND OPPORTUNITIES

Competitiveness of the sector basically depends on its ability to cope with emerging challenges, namely:

- **A fast changing global economic architecture with:** new manufacturing and automation technologies; phasing out of preferential access to markets, use of IT and communication tools, fast-paced technological development, rapid changes in consumer preferences and fiercer competition from countries like China, India, Bangladesh, Vietnam, and Philippines. Industrial policies have to be adapted for a new phase of industrial development to pave the way for a revamped and dynamic manufacturing base. New technologies such as additive manufacturing (3D printing) and robotics have the potential to change work patterns and further increase the competitiveness of manufacturers and suppliers.
- **Lack of Investment/FDI from Foreign Companies** - The trend towards automation and robotics in developed countries has curbed the delocalization of foreign companies to developing countries to access cheap labour. Industrial policy should therefore aim at upgrading the manufacturing sector towards higher value added products and services coupled with refocused FDI strategies to promote international and strategic partnerships.
- **Market Access-** The trend is towards dismantling of trade barriers as a result of global trade liberalization and the emergence of trade agreements within regional blocks. However, Mauritius can still avail of some preferential market access to its main export markets: SADC, COMESA, EU and AGOA (renewed for the next 10 years). With a rising middle class in African countries, there is potential to tap the regional markets and identify other niche markets. The evolution of markets towards sustainable products is an opportunity for Mauritius through eco-labelling and fair trade certification for niche markets.

KEY THRUST AREAS

The challenge for Mauritian manufacturers is, therefore to remain competitive in this environment, which in turn translates into being continually innovative. Mauritius can emerge as a large reliable manufacturing base for high-end products in the region by:

- (a) shifting from traditional areas towards high value knowledge-intensive goods
- (b) promoting increasing use of innovative and high-tech equipment and logistics in enterprises and businesses

- (c) exploiting the opportunities of a globalised manufacturing through the integration of regional value chains

Growth Projections of the Manufacturing Sector by 2030

Year	Percentage share of manufacturing sector to GDP	Estimated Value-added (Rs billion)*	Total Direct Employment of the manufacturing sector
2015 (Baseline)	16.3%	58.6	117,000
2020	19.5%	98.9	122,000**
2025	22.5%	164.7	127,000
2030	25%	264.3	132,000

*The estimated value-added was calculated assuming a GDP growth rate of 4% for the year 2016 and a constant annual growth rate of 5% over the period 2017-2030. The deflator was assumed to be a constant annual rate of 2.5% over the period 2016-2030. **5,000 increase in employment during period 2015-2020 based on forecast made in Economic Mission Statement Vision 2030

Source: Ministry of Industry, Commerce and Consumer Protection

VISION 2030– AN INNOVATION-LED INDUSTRIAL SECTOR, A CONDUCIVE COMMERCIAL ENVIRONMENT AND THE EMERGENCE OF A GLOBALLY COMPETITIVE MANUFACTURING SECTOR

In 2030, the development of an Innovative and a knowledge-led industrial sector, achieving efficiency gains and productivity increases, embracing continuous product development and industrial upgrading that, altogether spurs wealth creation for a high-income economy.

NATIONAL STRATEGIES

SHORT TERM

The following policy measures are likely to give a fresh impetus to the manufacturing sector:

- Adoption of best practices to survive in this competitive global market and this will necessitate critical economic and social infrastructure needed to support medium to long-term growth

- To formulate a new investment promotion model driven by institutional alignment on best investment promotion practices and value-chain analysis, to attract investment in high-value added manufacturing activities. Export Development Plan elaborated with emphasis on an Africa Export Strategy, will provide strong support to the Domestic Oriented Enterprises to tap opportunities in the Africa by moving up-market towards high value, knowledge intensive goods and further building the regional value chains in textiles and other sectors.

- Maintaining the pace of innovation and creating a dynamic manufacturing sector by clustering of enterprises to benefit from not only economies of scale operation but also in terms of sharing of information/expertise and capacity. New high-tech parks and incubators/accelerators will be required to promote high-tech and knowledge industrial activities.
- A comprehensive agenda to raise productivity. Enhancing productivity across the manufacturing sector would not be confined to production lines only but should also include waste management and recycling for a greener environment. Also, the problem of skills gap would be addressed by maintaining a pool of talent and adequately skilled manufacturing workers. To increase productivity at enterprise level, an acceleration of training of workforce and replacement of old technology with new ones at enterprise level is required. Reusable wastes should be absorbed in recycling business.
- To promote the development of a fashion-led industry and organise regular and seasonal fashion shows both in Mauritius and abroad that would make known internationally the 'Made in Mauritius' label for greater acceptance of our products in new and emerging markets.

At the WTO level, negotiations could be in terms of special treatment in favour of products locally manufactured by the D. O.E and SMEs given our vulnerable SIDS status and its location far from its main trading partners.

- Mauritius Standard Bureau would be endowed with modern facilities and capacities to act as a regional leader in supporting industrial development.
- Research and Development (R&D)- Companies to build their R&D capabilities, as well as expertise in data analytics and product design. They will need qualified, computer-savvy factory workers and agile managers for complex global supply chains. A Research and Development Centre will be set up for fostering materials/product development, process re-engineering and value-added products. The R & D Centre will be linked up with international centres of excellence and endowed with specialised expertise and graduated into a regional centre of excellence.
- A Business Incubator at the University will be set up with an independent status, and with strong private sector input. The incubator should focus on providing incubation services, promoting linkages with industry and the academia for promoting an entrepreneurship culture at university. It is also imperative to build employability of graduates through mandatory training industry throughout the academic course.

MEDIUM TERM

Development of a "Green" Manufacturing sector for a low-carbon economy and sustainable production

- A National Green Industry Programme will be implemented in collaboration with centres of excellence

in Africa and other countries to foster use of solar energy, waste recycling, green technology and eco-friendly materials, reducing cost of energy resources by 20% and improve productivity by 20%.

Building More Regional Value Chains- to effectively exploit manufacturing globalization, through the integration of regional value chains for new markets.

Continuous improvement in the adoption of latest technology- industry to effectively exploit the opportunities presented by new technologies such as information technology, biotechnology, medical devices, nanotechnology, environmental technology and energy or material sciences. Also , to promote extensive use of industrial robotics and the 3D printing, a manufacturing model that accompanies an Internet-of-Things.

Enhanced support for innovation and market opportunities The challenge for Mauritius is to launch a powerful drive for innovation, so as not to miss opportunities or fall behind in sectors which are critical to the future. Innovation/Technology Parks will be set up.

LONG TERM

With a very dynamic pace of globalised development and the need to maintain competitiveness for survival, investment promotion to be reviewed to attract high value activities and industrial policies adapted to position Mauritius as an attractive manufacturing base.

Investment opportunities will continue to exist in the following fields: textiles and garment making; non-textiles comprising light engineering; food and seafood processing and high-precision engineering comprising products such as watch and jewellery, medical devices, pharmaceuticals, electronic components and products and parts for the aerospace and automotive industries, amongst others.

For the medium term to long term, emergence of Fab-Labs throughout the island will be a reality. These state-of-the-art technology centres will provide a creative space for budding product designers and entrepreneurs to not only meet but also to test their latest ideas. This co-working space will link engineers, designers, and innovators and have the latest digital infrastructure with high-tech computer controlled machinery and 3D Printing manufacturing devices for prototyping.

TRAVEL AND TOURISM SECTOR

SITUATION ANALYSIS

Tourism is one of the four main pillars of the Mauritian economy, alongside sugar, textiles, and financial services. Mauritius is highly dependent on European visitors, with France being the largest single market, and UK and Germany the second and third largest European markets. Other important non-European source markets include Reunion Island, South Africa, China and India.

The travel and tourism sector accounts for over 10 percent of GDP and more than 16 percent of Government investment. The number of tourist arrivals in 2015 increased by an estimated 10.9 percent from 2014, with the largest increases from China, Germany and India. Gross earnings from tourism were over Rs50 billion in 2015 (USD1.3 billion), an increase of around 13.4 percent from 2014, while gross earnings per tourist which were at their lowest in 2013, showed an increase of around 2.2 percent from 2014 to 2015. Tourism receipts showed a decrease of 2.4 percent in 2015 as a percentage of exports of goods and services, but is expected to increase to an average of 5.2 percent by 2020.

Mauritius is already reviewing its Euro-centric strategy to extend it to Asia and Africa, and new emerging markets in Scandinavia, the Gulf and Eastern Europe. Air access will be further liberalized to increase connectivity. The Mauritius-Singapore Air Corridor project linking the African continent to Asia is expected to change the whole dynamics of air access to and from Mauritius and the islands of the Indian Ocean, while reinforcing regional tourism cooperation. With the Changi-corridor project which will enable Mauritius to have access to several destinations in Africa and to more than 90 destinations in Asia, the concept of beach and wildlife holidays will be promoted.

Mauritius was listed 56th out of 141 countries in the 2015 Travel and Tourism Competitiveness Report, and 3rd in sub-Saharan Africa behind South Africa and Seychelles.

CHALLENGES AND OPPORTUNITIES

The cost of air travel to Mauritius is higher than most of its closest competitors; this may be due to limited competition in air transport and the taxes and fees levied on air travel. High airfares have led to package prices to Mauritius being expensive across hotel categories relative to most competing destinations, except Seychelles and Maldives. In the 5-star package category, Mauritius has neither been able to achieve the exclusive positioning of the Seychelles and the Maldives, nor is it competitive relative to destinations like Bali, Thailand, and Sri Lanka. Over-indebtedness of the sector limits the potential of the industry to remain what it has traditionally been that is, an up-market, high-spending holiday destination. Further, there are no Chinese and Indian hotels to cater for the developing Asian tourist market.

The tourism sector remains vulnerable to the impacts of climate change. Potential threats which include tidal waves and surges as well as the deterioration of the coral reef through changes in sea temperature, can affect the attractiveness of Mauritius to tourists. The Vision 2030 provides for mitigation and adaptation measures to climate change, including the promotion of green energy and water policies.

The Mauritius Brand needs to stay relevant to the target market, to keep up with the times and keep pace with changing customer needs (e.g. services, accessibility, convenience, choice, changing trends, technology). In a fast moving environment with aggressive competition, rebranding may be required to change the offering to the market in order to create a more compelling reason to buy in the minds of the target market.

Travel and Tourism Competitiveness Index, 2015: Out of 141 countries, the global ranking of Mauritius was 56th of which, Enabling Environment (53rd), Travel and Tourism Enabling Policy (19th), Infrastructure (44th), and Natural and Cultural Resource (120th).

The United Nations World Tourism Organisation expects the international market for tourism to grow by 49 million a year on average, to reach 1.8 billion by 2030. Further, emerging economy destinations will surpass advanced destinations; Asia and the Pacific will gain most of the new tourist arrivals, and Africa's share of world tourism is expected to increase from around 5 percent to 7 percent by 2030. There will be no major change in purpose of visit by 2030, with the main reason for travel remaining leisure, recreation and holidays, followed by visiting friends and relatives, health, religious and other reasons, and finally for business and professional reasons. Moreover, there will be more and much richer Asian and African tourists travelling by 2030. China tops the list of countries with the best middle-class potential followed by India, Indonesia, Nigeria and the Philippines.

As Mauritius moves to the high-income league of countries, there will be more middle-income earners and this can lead to an increase in domestic tourists. Domestic tourism will be promoted during periods of low season. A vibrant domestic tourism industry can generate visitor spending during off-season months. Although an increase in domestic tourists does not typically offset the losses incurred by a decline in international tourists, it will help to withstand fluctuations in international tourism.

KEY THRUST AREAS

- Promote a sustainable tourist strategy and diversify the tourism products to cater for different tourist profiles, in a way that protects the environment, provides local multiplier effects, and decreases leakages. Diversification will take place in various ways:

- New products like cultural, historical and archaeological attractions will be developed. Our locale culture will be valorized with the rehabilitation/setting
- up of museums, galleries, and historical landmarks, and promotion of indigenous knowledge.
- Reinforce linkage with the Agricultural sector in particular sustainable farming initiatives localized within the region of the hotel and involving local communities.
- The night economy will be developed with more diversified nightlife activities such as late night shopping, and regular concerts with the participation of international artists will be organized. A key enabling factor will be safety and security which will be enhanced.
- Wellness-driven activities such as incorporating a high-end spa experience will be encouraged. The setting up of spas with thalassotherapy fits in the context of the development of the ocean economy, and will give a boost to entrepreneurship.

- Grey tourism will be promoted to cater for the ageing tourists from many advanced countries.
- The number of medical tourists will be increased with the development of the medical hub. The target is to reach 200,000 medical tourists in 2030.
- Community tourism will be encouraged to provide that unique experience of the local culture, while supplementing family income. Community tourists are more likely to protect marine and coastal resources that serve as tourist attractions.
- Outer-island tourism will be developed while preserving the ecology of the outer-islands.
- Eco-tourism will continue to be promoted through the Green Certification programme.
- Regional tourism cooperation will be reinforced, largely through the Vanilla Islands Organisation.
- Cruise tourism will be further promoted.

Promote fair trade in tourism and address poverty issues. It is proposed to develop a collaborative style of work where partnerships between government, the private sector, and small-scale enterprises (formal and informal) will prosper. Linkages will be developed between small-scale enterprises especially in the craft markets, and mainstream tourism to enhance the multiplying effect.

Keep quality and high standards part of an overall visitor experience. To keep the industry competitive, education standards, transferability and transparency of qualifications will be continuously improved. Government will work in close partnership with the private sector to address the issue of retention and development of employees, an essential part of improving performance and capacity of the sector. Continuous training will be run in synchrony with trends and demands. Such opportunities will be extended to employees in ancillary sectors such as tour operators, tourist guides, craft workers, and employees in the transport and restaurant sectors, which provide a direct service to tourists. The educational institutions running hospitality courses will be encouraged to collaborate and synergise their efforts to meet the needs of the industry when it comes to better trained personnel and dedicated professionals.

Develop a customer-centric approach, putting the customer's needs and requirements first.

-Brand Mauritius through events such as high-end fashion photo shoots and fashion shows, Golf Tournament, International Tennis Tournament, Cricket Tournaments, Film Festivals, World Class Sports, and Recreational activities such as horseracing cups, marathons/triathlons, and gaming. The Ministry of Foreign Affairs, through its High Commission and Embassy network, will play a more important role in promoting Mauritius as a tourism destination.

- Regulate all service providers in the leisure sector who offer sea, land or air-based activities to ensure the safety and security of consumers.

- Exploit the “bleisure” tourist market through the MICE concept. The Vision 2030 puts a lot of emphasis on technological innovation for the provision of facilities like state-of-the-art teleconferencing and cloud computing, which are prime enabling factors of this fast developing type of tourists.

- Capitalize on technological facilities to market Mauritius as a tourist destination, with a focus on providing personalized guidance rather than simply providing information

VISION 2030

Our vision is to develop a strong, inclusive and sustainable travel and tourism industry capable of contributing effectively to economic development by 2030.

NATIONAL STRATEGIES

SHORT-TERM

- Carry out a sustainability study to determine the tourism carrying capacity
- Develop Agri tourism in Agro Ecology zones
- Enforce regulations on standards for health and safety
- Set up a complaints service platform to allow a quick response to industry failures
- Reinforce the reputation of Mauritius as an Up Market Destination
- Appointment of famous brand ambassadors
- Leverage on digital campaigns and social media networks
- MTPA to develop new tourism packages based on Medical Tourism, Culture Tourism, Grey Tourism, Cruise Tourism and MICE
- Construct marinas
- Construct jetties at embarkation point for pleasure craft
- Construct slipways
- Create Port Louis heritage trail/Development of a smart phone application for heritage trail in Mauritius (in the context of the Heritage City)
- Develop a classification system of non-hotel sector
- Construct a cruise terminal
- Launch a 24/7 toll free tourist info line in different languages for tourists
- Develop GPS network for Mauritius to ease navigation inland
- Creation of Boat free zones
- Creation of dolphin and whale park
- Train Front-liners in Chinese, Indian and Arabic languages and cultures
- Upgrade amenities on public beaches
- Construct coastal walk ways at Grand Bay
- Harmonise and re-organise beach traders structures on public beaches
- Improve sea navigation around the island through dredging of pass, create navigational passages, navigational aids at passes, etc.
- Prepare a GIS map for the lagoon of Mauritius.

- Implement automatic identification system on board all pleasure crafts to monitor their activities and to facilitate search and rescue
- Issue pleasure craft licenses to “Authentic Boat” and innovative projects.
- Open air access
- Attract connectors
- Address the issue of retention and development of employees in the tourism sector
- Regulate all outboard engines to comply with European standards of emission and noise to protect the marine eco-system
- Create an Ecological Fund

MEDIUM-TERM

- Create a national heritage trail
- Create Floral Villages
- Provide multiple visa facilities in the regional islands
- All tourist enterprises to resort to at least 40% of renewable energies as advocated in the Energy Strategy Action Plan

LONG-TERM

- Construct a waterfront at Grand Baie
- Equip all public beaches with CCTV cameras
- Equip all beaches with solar lighting facilities and beach furniture made from recycled materials
- Regenerate the lagoon eco-system around Mauritius

SME SECTOR

SITUATION ANALYSIS

Small enterprises are operating in a wide range of sectors, from food and beverages, leather and garments, wood and furniture, paper products and printing, chemical, rubber and plastic, handicrafts, pottery and ceramic, jewelry and other activities related to trade and commerce.

A survey conducted by the World Bank in 2009 (Mauritius Enterprise Survey) revealed that small units comprised 90% of all registered business in Mauritius and employed 49% of the workforce. Recent data shows that small establishments (employing less than 10 persons) are contributing more and more to value added, 26 percent in 2013 compared to 20 percent in 2007 and 18 percent in 2002.

	2013
Number of small production units	125,500
<i>of which : informal units</i>	33,500
Number of persons engaged in the small production units	283,000
<i>of which: number of persons engaged in informal units</i>	56,100
Value added of the small production units (Rs)	82,100
<i>of which : value added of informal units (Rs million)</i>	11,000

(Source: SM, CEA, 2013)

Table 1.5: Status of Small Establishments, 2013

The 2013 census from Statistics Mauritius, indicates that the sector comprised 125,500 small establishments, had a workforce of 283,000, accounting for 47% of the total employment. As in 2007, wholesale and retail trade, repair of motor vehicles, motorcycles, personal and household goods, is the most important activity (37%) among the small units, followed by Transport and Storage (17%), Manufacturing (12%) and Construction (10%).

The main findings of the 2013 Census of Economic Activities (CEA) for small establishments in Mauritius and Rodrigues, compared to 2007 Census data, is as follows –

	2007	2013
Number of small production units	92,400 -Mauritius:89,900 -Rodrigues:2,500	127,900 -Mauritius:125,500 -Rodrigues:2,900
Total number of persons engaged in small units	211,600 48% paid employees 24% own account workers 19% employers and 9% contributing family workers	281,860 46% paid employees 24% own account workers 19% employers and 11% contributing family workers.

	2007	2013
Investment by small units	Rs 1,031 million (43% on transport equipment, 33% on other machinery and equipment incl. ICT equipment buildings, 17% on buildings and 7% on furniture.	Rs 1,890 million (41% on transport equipment, 29% on other machinery and equipment including ICT equipment, 24% on buildings and 6% on furniture.

Source: Statistics Mauritius, Census of Economic Activities, 2007 and 2013

Breakdown of SME by sector of activities

Industry group	Production units		Persons engaged		Gross output		Value added	
	Number	%	Number	%	Amount (Rs mn)	%	Amount (Rs mn)	%
Total	125,543	100.0	282,971	100.0	131,391	100.0	82,061	100.0
Manufacturing	15,241	12.1	36,207	12.8	17,499	13.3	9,083	11.1
Construction	12,911	10.3	36,326	12.8	25,650	19.5	10,390	12.7
Wholesale and retail trade; repair of motor vehicles, motorcycles	46,776	37.3	98,804	34.9	34,470	26.2	25,970	31.6
Transportation and storage	21,520	17.1	37,838	13.4	16,170	12.3	10,213	12.4
Accommodation and food service activities	10,699	8.5	27,367	9.7	11,680	8.9	6,905	8.4
Information and communication	557	0.4	1,788	0.6	1,072	0.8	589	0.7
Financial and insurance activities	175	0.1	680	0.2	549	0.4	471	0.6
Real estate activities	600	0.5	1,200	0.4	440	0.3	365	0.4
Professional, technical and support service activities	3,978	3.2	12,656	4.5	9,301	7.1	7,316	8.9
Education	1,853	1.5	5,451	1.9	1,410	1.1	1,088	1.3
Human health and social work activities	1,705	1.4	3,687	1.3	1,783	1.4	1,334	1.6
Arts, entertainment and recreation	3,408	2.7	10,083	3.6	8,090	6.2	6,246	7.6
<i>Other services</i>	6,119	4.9	10,884	3.8	3,277	2.5	2,092	2.5

Source: Statistics Mauritius

Data from SMEDA shows that 25 257 enterprises are registered out of which only 12,541 (49.6 %) are operational. Manufacturing MSMEs represent 41.6 % of the total with 5227 units followed by Wholesale, retail trade and garages with 3389 operational units which shows that SMEDA is more focused on manufacturing than service activities. The main reasons for non-registration of units are that entrepreneurs could not secure premises and / or permits and clearances for their operation. The complexity and cost of compliance to regulations also lead to some SMEs operating informally.

In the Finance Audit Act 2015, the new definition of SMEs includes small, medium and “micro enterprises”, and the following turnover criteria is being used to determine the type of enterprise.

Enterprise	Annual Turnover (Rs)
Micro Enterprise	Not more than 2 million
Small Enterprise	More than 2 million but not more than 10 million
Medium Enterprise	More than 10 million but not more than 50 million

Based on the above definition of SMEs and data available from CEA 2013, 87 % of the production units can be categorized as micro enterprise, 12 % as small enterprise and 1 % as medium.

CHALLENGES AND OPPORTUNITIES

SMEs face many constraints to survive, thrive, and move into production and exports of high-value added items. Difficulties in obtaining bank finance, trained and skilled labour, R&D and technology outreach, and stringent formalities and administrative burden amongst others, are impediments to the growth of SMEs.

As SME schemes are dispersed amongst too many support institutions (SMEDA, NICE, NWEC, NPCC, DBM, MRC, EM and MBGS), the approach in providing support to the SME sector is piecemeal and fragmented, leading to low take-up on schemes, insufficient follow-up / monitoring of start-ups that affects the survival of new SMEs, and often lead to high rates of market entry / exit across nearly all sectors of activities.

Other constraints include dedicated industrial space, difficulties to access both domestic and export markets especially with trade liberalization, with trade agreements within Regional blocks and fierce competition from low-cost producing countries (e.g. Thailand, Egypt, Philippines).

In addition, the transformation of the local distribution supply chains in favour of proximity supermarket chains and hypermarkets is aggravating the situation as the SMEs have to also compete with imported products flooding the local market. In some cases, it is dumping of sub-standards imports on the local market, at very low prices.

The SMEDA Act does not differentiate between local production and trading of goods and services. This results in unfair competition from the traders who are benefitting from the same support and incentives.

Local R&D in handicraft is copied by traders from low-cost producing countries. Also, the current Intellectual Property (IP) rights framework does not really attract foreign investors as they feel insecure to venture given the weak IP framework. In some sectors, a level playing field between local enterprises (manufacturing) and trading activities, is lacking. For instance, in the local food transformation sector, controls on some types of inputs like chemicals and food additives are exercised whereas imported finished products are not subject to the same stringent controls.

As regards, innovative steps in the field of the enterprises and startups, there is not that strong linkages between Research and Development and support institutions and the SMEs and industries in general. Creation of SMEs as a spin off from R&D activities is lacking. Instead, research has focused on publication of papers in academic areas which may be far from the transversal requirements of the local priorities.

In Mauritius, the SME sector remains an important segment of the economy as they contribute significantly to wealth creation (40% to GDP), employment generation and poverty alleviation. Moving towards the vision 2030 objective to become a high income economy, opportunities exist for entrepreneurial development through: innovation and adoption of the state-of the art technology; clustering strategy; and accessing new niche markets. The target should be to have more SME entrepreneurs joining the league of high quality product exporters.

KEY THRUST AREAS

The SME sector must be revamped and given a boost to allow startups and growing SMEs to graduate to successful enterprises by:

- i) developing entrepreneurship at the level of the education system and vocational training
- ii) expanding the economic space for MSMEs by facilitating access to local market, export markets and identified niche markets
- iii) providing enhanced support to MSMEs for an entrepreneurial and innovation-led model by providing access to specialized expertise and resources.
- iv) Identifying new growth poles or niches, create new capacities and competencies, capture inter- and intra-sectoral linkages and higher value-addition, provide new vehicles for investment and finance, to achieve an inclusive and green growth for MSMEs.
- v) Positive discrimination in favour of MSMEs by creating a level playing field between trade and manufacturing providing targeted support to compensate for lack of critical mass.

VISION 2030

In 2030, the SME sector will be the main engine of growth that contributes significantly (60%) to employment and wealth creation and to achieving the high-income country status. The contribution of SMEs towards inclusive and green growth will help in achieving the SDG 8

'promoting inclusive and sustainable economic growth, full and productive employment and decent work for all' and SDG 12 'ensure sustainable consumption and production patterns'

NATIONAL STRATEGIES

SHORT TERM

Many initiatives have been taken to develop the SME sector in the short term (2016-2020), namely: preparation of a “**10-Year Master Plan**” for the SME; provision of Rs 10 billion (a line of credit for SME) over 5 years through the newly set up Maubank; setting up of a “**One-Stop-Shop**” to provide all relevant information under one roof; and the introduction of a “**Skills for Growth Scheme**” to help young graduates to acquire work experience. Incentives are also provided for growth of SMEs across the following sectors: manufacturing, handicraft, renewable and green energy, ICT and export services, bio-farming/agro-processing, aquaculture and other value-added ocean economy related activities. Incentives should be widened to include new and emerging sectors.

Other programmes comprise (i) Young Entrepreneur Development Programme (targeting university undergraduates and graduates) designed and run jointly by local universities and the SMEDA whereby students will be assisted to develop their business ideas and business plans; (ii) the setting up of a full-fledged Mentoring System by employing experienced mentors; (iii) construction of seven SME Industrial Parks to address the issue of lack of industrial space; (iv) setting up of specialized incubators; and (v) introducing eco labeling for certification of eco products.

OTHER STRATEGIES PROPOSED FOR THE SHORT TERM:

- Positive discrimination in favour of SMEs including the possibility to negotiate at the WTO level (on account of Mauritius vulnerable SIDS status), special treatment and preferential access to achieve a level playing field with large global players.
- Rationalize the academic system and reinforce linkages between Academia and TVET institutions. Enhancing linkages between the research community (MRC, public universities, etc) and the SME community/industry will enable small firms to gain access to sophisticated technology and technical expertise, whose direct employment is prohibitively costly.
- Refocus the research spending around themes of special national interest.
- Introduce a professional temporary visa to enable specialists in focused areas of interest e.g Fashion and Design to provide Technical assistance, to MSMEs.
- Part of Research funding to be channeled through the SMEs to ensure that research effort is geared to address issues in the SME sector.
- Relaunch apprenticeship system in trades through capacity building which can be combined with formal literacy, numeracy and marketing courses to promote entrepreneurship.

- Create strong intra and inter sectorial economic linkages:
 - Agro- Energy- Food Sector: Organised Linkages between livestock and food crop and between production and transformation along the food supply chain
 - -Giving a boost to the MSME Energy services and construction sector through an incentive framework to invest in building energy efficiency for Voluntary refurbishment of existing buildings to comply to the Energy Efficiency Building Code as a boost to the SME construction and energy/engineering sector.
 - Reinforce country branding through local tourist destinations involving the local communities
- Development of a National Eco-Labelling Framework and incentives for green certifications.
- Demand side management: Rationalise permits and licences for MSMEs to reduce the administration cost for government and lower administrative burden enabling MSMEs focus on their core business
- Rationalise/ streamline institutions / Limit the scope of Business support institutions to regulation and cross cutting issues and areas which benefits from shared solutions.
- Direct support by Sector specialists from a Micro/ Small service sector managed by a streamlined business support institution
- Nurture an SME support class of entrepreneurs with a potential for export of services to Africa.
- Democratization fund to directly involve a large section of the population into the ownership structure of SMEs and fund national projects to pull vulnerable sectors towards sustainability
- Creation of an electronic platform for linking business angels, service providers / Mentors to bring equity, expertise and business networks to the business

MEDIUM TERM

Enhancing democratization of the sector by opening up opportunities for the different market segments with greater benefits accruing to local residents, different sectors and groups especially the lower income groups, and low-skilled operators. The democratization of the sector will mean a policy orientation that does not focus uniquely on the up-market segment but also on the low-to-middle segments. Such policies that redefine the sector and its parameters to be more inclusive will offer enormous possibilities to revitalize the agricultural and rural economy, support the sustainable development of rural areas, develop community-based tourism with a cultural content, agricultural tourism eco-lodges, family-owned hotels, guest houses, eco accommodation, traditional organic and authentic product (e.g aromatic plants for the spa subsector of the tourism industry; the Mauritian cuisine, environmentally friendly hotels, green holidays, sports clubs providing services.)

To develop a new breed of technology-savvy and globally competitive entrepreneurs, with focus on the adoption of resource-efficient technologies and high-value-added activities such as research and product development, the following schemes are proposed:

- Support scheme on software adoption to enable SMEs to automate and streamline their business operations with ICT solutions.
- Infrastructure for e-commerce that would enable electronic and mobile payments, offer new transactional and value-added services and new e-payment solutions. E-Government projects will be fast-tracked.
- Technical assistance to nurture a vibrant pool of technopreneurs and for technology commercialization.
- A Technology Diffusion Cell to allow for information sharing on sources of technology and international innovations including a database on relevant patents in public domains.
- An Export development strategy with emphasis on market knowledge, information on international tenders; facilitation of business contacts; participation in exhibitions; and developing new niche markets.
- Vulgarisation of Market information services like AMADE (*Accès au Marchés Publics pour le Développement Economique*)

LONG TERM

To empower SMEs to spearhead the transformation of key economic sectors, to operate in more sophisticated and innovative sectors and to accelerate the growth of entrepreneurs in those emerging sectors, such as, renewable energy, ICT, biotechnology, ocean economy, engineering industries and service industry. The following measures are proposed:

- In the context of the Africa strategy, promote the concept of ‘Made by Mauritius’ through the setting up of special economic zones/clusters e.g through G2G Partnership in Western Africa countries for the Mauritian Entrepreneurs to manufacture using competitive local resources and labour and export under AGOA exploiting cost effective and fast logistics towards East coast US. Such collaborative ventures in developing countries would also be eligible to donor funding.
- Setting up of a Fourth Generation Incubation Model, in high-tech sectors such as renewable energy, ICT, biotech, ocean economy, engineering industries, etc. This includes the provision of specialized programmes and services to catalyze the development of knowledge-based economy.
- More specialized schemes – with cost sharing principles for feasibility studies for innovative SMEs.

INFORMATION, COMMUNICATION AND TECHNOLOGY (ICT)

SITUATION ANALYSIS

Mauritius has been successfully developing its ICT/BPO capabilities through investment in infrastructure, intelligence and innovation. The industry represents a key driver of the economy with a GDP contribution of more than 6.5% (2015), employing over 20,000 professionals and underpinned mostly by leading global companies. Over less than a decade, the speed of connection is 10 times faster (at 100Mb), whilst the ICT-BPO tariff has experienced around 60% to 70% reduction.

The connection on fibre optic cables, the advent of 4G networks, and some bold plans like the tower sharing plan and the installation of palm tree towers have contributed to change the IT landscape. The mobile penetration rate has reached around 130% and growth is coming more from fibre to home, TV content and business solutions like cloud computing and software development.

However, on the global scene when compared to the league of high income countries Mauritius ranked poorly in terms of information technology and telecommunications infrastructure network as follows-

Category/ Ranking in GCR	Mauritius	Hong-Kong	Singapore	Taiwan	Best of top African countries
Fixed broadband penetration	56	16	23	30	54 (Seychelles)
International bandwidth availability	76	2	4	41	53 (Kenya)
Mobile broadband subscriptions	68	9	1	32	19 (Botswana)

Source: Global Competitiveness Report (GCR), 2015

Based on the current trend and assuming a favourable climate, the ICT sector would contribute up to 10% of GDP annually and create 50,000 jobs by 2030 with the objective of climbing amongst the top 25 countries in the world ICT ranking.

CHALLENGES AND OPPORTUNITIES

CHALLENGES

- (i) ICT is a capital intensive sector requiring high investment due to fast obsolescence of technology and equipment such as voice, roaming and SMS and to unpredictable internal and external environment;
- (ii) there is a lack of diversity in connectivity;
- (iii) the sector is heavily taxed, the cost of operation is high and the permit procedure is lengthy;
- (iv) the Mauritius ICT industry is small in size, geographically isolated, lacks regulatory experience and therefore not attractive enough to multinationals;
- (v) there is a shortage of ICT professionals and high profile engineers and skills mismatch between the industry and the labour market;
- (vi) Mauritius does not have a well-established software development industry per se, and most software used in Mauritius are developed abroad, except for some scattered initiatives in niche areas, for example, payroll systems, mobile apps for parking, dedicated software for ministries and departments, and for the sugar and textile industries. Even these are gradually being replaced by “off-the-shelf” software products from foreign suppliers; and
- (vii) the implementation of the e-government strategy has been slow, impacting on efficiency gains and improvements in public service delivery;

OPPORTUNITIES

The ICT industry will be converted into a thriving high value-added industry focusing on innovation and creativity, and positioned as a strong IT outsourcing jurisdiction in niche technologies, development of centres of excellence around digital, e-Government, software development, among others. The ICT/ BPO sector could climb up the value chain to provide higher value services like “Legal Process Outsourcing” and “Knowledge Process Outsourcing” with the ambition of positioning Mauritius as “**THE ICT BPO CENTER OF EXCELLENCE FOR AFRICA**”.

In order to promote Mauritius as the preferred ICT/BPO destinations for international companies, like Wipro, Genpact, Cognizant, IBM, Capgemini and Xerox, the pool of trained manpower/talents will be widened as talented professionals from over the world will complement the Mauritian workforce to create a unique blending and competitive cost advantage. More value-added customer fronting activities (such as help desks, credit collection, dispute resolution, customer services) and the capabilities for a third language other than French and English will be developed. The ICT/BPO companies will be encouraged to participate in local tendering for business solutions of parastatal bodies and other public organisations.

The strategic geographical location of Mauritius coupled with its cosmopolitan environment provides a vantage point for meeting the needs of a rapidly developing Africa. As Africa becomes the next driver of demand and innovations, Mauritius is well-positioned to help ICT companies better understand and meet the needs of consumers across Africa and beyond.

The implementation of the e-Government strategy allows not only for efficiency gains and improvements in public service delivery, but also offers an opportunity for a complete re-engineering of the management processes within the government machinery. The objective is to implement the “**One Government**” concept where the focus is on achieving a “**shared outcome**” across portfolios and jurisdictions.

KEY THRUST AREAS

The key thrust areas for the sector are as follows -

- (i) improving the ICT infrastructure through improvement in the bandwidth capacity, extension of the fibre network and diversifying the connectivity;
- (ii) consolidating the legal and institutional framework to increase the affordability and competitiveness of the ICT sector; and
- (iii) strengthening the implementation of the E-Government Strategy;

VISION FOR 2030

The Vision is to transform the ICT industry into a thriving industry of the economy, focusing on innovation and creativity, while developing a sustainable and high value added-economy.

NATIONAL STRATEGIES

SHORT-TERM

- International connectivity will be gradually improved as the ICT infrastructure is being consolidated through the implementation of the third submarine fiber optic cable and the second Telecommunications Backhaul,
- local connectivity will be improved through a wider internet access to household connected at affordable price and the inland fiber connectivity,
- setting up of incubators / accelerators around the country will be encouraged whilst the Rose Belle Business Park and Technopark in Riviere du Rempart will be fully operational,
- Mauritius will be positioned as a “**Regional ICT Hub**” and a “**Gateway to Africa**” and will attract top-notch companies like WiPro, Hinduja, Tata,
- ICT/ BPO services will move up the value chain in terms of providing Financial and Accounting BPO and Legal Process Outsourcing,

- the legal framework governing the ICT sector will be reviewed to increase business solutions, promote competition, operationalize open data and data sharing and create synergies within the sector, and
- implementation of the E-Government strategy will bring a turnaround in the public sector into a “Smart Government” and “One Government Concept”.

MEDIUM-TERM

- an institutional review of the sector will be undertaken to allow the unbundling of local loop and functional separation of telecommunications function;
- local connectivity will be further improved through the wireless technology and the speed of internet connection will increase from 100 Mbps to 500 Mbps;
- data storage capacity will be enhanced through the consolidation of data centres and a Comprehensive Tier 4 Government Data Centre; and
- public at large will have easy and wider access to on-line services through the postal services.

LONG-TERM

- By 2030 business facilitation will be significantly improved as Mauritius will be digitalized in terms of high bandwidth connectivity, state-of-the-art infrastructure and technology and widespread e-services.

FINANCIAL SERVICES

This Chapter will be firmed up after the Budget and discussions with the Ministry of Financial Services, Good Governance and Institutional Reforms

SITUATION ANALYSIS

From an economic strategy focused on banking business in the 1970's, Mauritius has successfully undertaken a fundamental development of its financial services sector with the introduction of new legislation and the setting up of new institutions like Mauritius Offshore Business Activities Authority (MOBBA), Financial Services Commission, the Stock Exchange of Mauritius and the newly created Ministry of Financial Services, Good Governance and Institutional Reforms. The current activities include payment services, credit services, asset accumulation, fund management, protection and real estate. In addition, corporate finance, risk management and financial data processing are other types of services being provided to the business sector. In the insurance sector, in addition to the traditional life and non-life insurance products, companies also provide asset accumulation, reinsurance, consultancy services, risk assessment and claim settlement services.

In 2014, the financial services sector contributed to 10% of Gross Domestic Product, generated 12,500 high value-added jobs, besides contributing to government revenues (corporate tax in the financial sector accounts for 30% direct tax receipts) and foreign exchange earnings. Between 2012 and 2014, the sector registered an average annual growth rate of over 5%.

The financial sector has shown resilience in the face of recent global economic setbacks, and has been able to position itself as a promising sector with the expansion of its activities across a relatively wide range of value-added services, including international banking, international fiscal management, and international capital raising and regional treasury management.

Regarding the banking and financial systems, it remains well-capitalised and sound. The "2014 IMF Mauritius Article IV Report" found that the banking system is healthy and resilient to a range of shocks to their credit portfolios. Banks are well capitalised, with 17% of Regulatory Tier I capital to risk-weighted assets, well above the proposed Basel III requirements. The capital adequacy ratio (CAR) has increased following the global financial crisis and stood at 16.5% as of September 2014, well above the regulatory minimum of 10%. Based on Bank of Mauritius estimates, the aggregate CAR could absorb losses of up to 15% of the current balance sheet of banks. In addition, the overall liquidity ratio rose from 17% end-2012 to 20% in June 2014, but has not fully recovered to the level of 2008 and 2009.

Mauritius ranked 64th (out of 84 countries) on the Global Financial Centres Index (September 2015). It has a well-established local financial centre when compared to Singapore and Hong Kong (which are established as global financial centres), and to Sydney and Kuala Lumpur (as transnational financial centres).

CHALLENGES AND OPPORTUNITIES

Challenges

The financial services sector faces several challenges as the industry is at the crossroads after years of sustained growth -

- (i) the operation of a large number of small players, for example in the insurance sector, may become the source of systemic risk. Most of these companies would not have the capital resources to invest in technology and risk management processes to stay competitive,
- (ii) lack of innovation in terms of products and business models. Other than the secondary securities market developed by the Bank of Mauritius, there is barely any significant secondary market trading in stocks and shares,
- (iii) the money and capital markets are subject to poor disclosure practices by companies thus hindering the proper evaluation of business and credit risks. In addition, with the exception of the banking sector, there is lack of a risk management culture across the financial services industry. The end result could be a misallocation of capital that would, in the long run, weaken the financial position of some financial institutions operating in Mauritius,
- (iv) the pace of economic development of the countries forming part of the Indian Ocean States is comparatively slow. These countries are not attracting significant foreign investment, equity or debt. Hence, Mauritius is prevented from effectively playing the role of the “regional financial center” to channel funds to these countries. Once growth picks up in the region, this could turn into an opportunity for Mauritius, and
- (v) the financial services industry has no institutional set-up for continuous training and upgrading of skills for its human resources. There is no defined policy to encourage the employment of foreign skilled manpower in new areas such as assets securitization and financial engineering where local expertise is in short supply.

Opportunities

From a short-term outlook, the industry will grow depending on its ability to –

- embrace and leverage on the Base Erosion and Profit Shifting (BEPS) regulations being adopted by the key OECD members aimed at Tax specialist jurisdictions,
- face competition from other jurisdictions such as British Virgin Islands (BVI), Jersey and Singapore,
- build on new brands that focus on higher value-added services and develop as the financial hinterland in Africa and emerging regions in the world, and
- attract international players to the jurisdiction to move up the value-chain of services.

Mauritius has an edge over many African Peers as it –

- is “white listed” by the OECD,
- is highly regulated,
- has adopted the “Foreign Account Tax Compliance Act” (FATCA) and the Common Reporting Standard (CRS),
- is compliant with the Markets in Financial Instruments Directive (MiFID), and
- is approved by Her Majesty's Revenue and Customs (HMRC).

Mauritius needs to look beyond the traditional avenues of growth and use its legal, banking and regulatory frameworks to capture business in the fields of wealth management and security brokerage.

The Stock Exchange of Mauritius (SEM) is well set to create the enabling environment so that Mauritius may consolidate its position in the region and emerge as an international multi-asset class “Exchange of Reference” in 2030. The SEM can set up an active secondary market for benchmarking of Government securities that will optimise the costs of borrowings.

Jobs creation in the financial services sector can be boosted through the provision of “lighter” regulation for smaller-sized companies and allowing individuals to emerge as “entrepreneurs”. For example the “insurance agent” model can be replicated in wealth management and securities industry by allowing licensed individuals to become financial planners and independent financial advisors.

Africa Strategy

The potential to develop Mauritius into an “International Financial Centre” (IFC) would be geared towards Africa by leveraging on both the inbound and outbound African investment such as -

- listing African funds on the Stock Exchange of Mauritius,
- showcasing the advantage to UK pension funds for investment in savings account, pension schemes and other vehicles against the background of HMRC's approval,
- seeding an “African Fund” through Mauritius pension funds and national pension funds, and
- positioning Mauritius as a platform to Africa by offering its banking, wealth management and brokerage services.

Financial Technology

Financial technology (FinTech) is growing exponentially with the massive development of internet and mobile innovations. The FinTech sector, especially in Africa, is a high growth area and requires more collaborative entrepreneur mind-set rather than heavy capital investment.

In the field of banking, banks are offering services that have very good security features for their online system. Moreover, government has established agencies such as the Cyber Crime Unit, and has enacted strong legislations for the prevention of online frauds. Accentuating on online banking or Fintech will bridge the distance between geographically remote locations and create new business opportunities.

Insurance

The legal framework is being reviewed to reinforce and modernize the insurance system allowing for digital signature and online transactions. Although international insurance companies and brokers have set up front offices in Mauritius, a large part of the money expended on “reinsurance” is still flowing overseas. In this context, a “Regional Reinsurance Company” will be set up and owned by all insurance companies operating in Mauritius. These companies would have to (statutorily) reinsurance a certain percentage of each risk with the regional company. The Regional Reinsurance Company would attract facultative reinsurance from regional / neighboring countries, and lead to job creation for highly qualified professionals.

Family Office

World wealth growth is expected to reach USD 345 trillion by mid-2020, 38% higher than in 2015. The number of millionaires will grow to 49.3 million adults, while the middle segment of wealth holders will exceed 1.3 billion adults, of whom 40% will be from China. It is therefore imperative that, as an International Financial Centre (IFC), Mauritius attracts high net worth individuals and family office service providers through the introduction of “Family-owned Investment Holding Companies” (FIHC).

Develop an OTC Exchange for Gold and Precious Stone Trading

To further develop and create more buoyancy in the financial market, a gold, silver and precious stone exchange will vertically integrate the various value chains of gold, silver and precious stones. The physical platform (spot OTC) will attract international market participants to create a vibrant regional market for gold, silver and other precious gems. Gold bars and gems can be sourced from the African mines (through regional agreements) and stored in the exchange vaults and then listed and traded on the exchange.

Infrastructure Bonds for Financing Projects in Africa

Africa’s infrastructure financing needs are rising as economic growth continues at above 5 per cent, and countries are increasingly looking to capital markets to meet their funding needs. Development banks can be encouraged to issue “infrastructure bonds” for projects in mainland Africa from Mauritius. The bond issuance can either be backed by a government guarantee of the African country to mitigate risks or by the cash flows generated by the project(s) that they finance. The infrastructure bonds can then be traded on an OTC segment. This will lead to further develop the bond market and improve secondary market liquidity.

Africa-gearied Funds to attract Fund Managers to Mauritius

To enhance the position of Mauritius as a jurisdiction of choice for Africa-bound investments and encourage fund managers to set office in Mauritius, a new ‘Incubator Fund’ and an ‘Approved Fund’ can be introduced.

The “Incubator Fund” will be aimed primarily at fund managers who do not necessarily have the benefit of seed investor capital but who wish to set up quickly and establish a track record with minimal set-up costs and without having to comply with onerous regulatory obligations. The product is therefore expected to be very attractive to start-up fund managers who are seeking the best environment to grow their assets under management in the most cost-efficient manner.

The “Approved Fund” is aimed at fund managers who wish to establish a fund for a longer term, but on the basis of a more private investor offering, which may appeal to family offices or an investor base of close connections.

The Incubator and Approved funds will be particularly suited for Africa-driven investments as investors seek to tap into opportunities offered by the African markets. It is anticipated that these new products will appeal to the Africa-focused fund managers.

Regional Headquarter Scheme

Presently South Africa and Kenya are capturing more regional headquarters than Mauritius although they do not provide the fiscal advantages of Mauritius. The attractiveness of Mauritius for “Regional Headquartering” thus needs to be enhanced. Mauritius should be branded as a place to do business ‘from’ as opposed to business ‘through’. The strategy to encourage multinational firms and businesses to have their African Headquarters in Mauritius should be developed. Moreover, existing and new regional headquarters can be encouraged to hold initial public offering to raise part of their financing needs through the Stock Exchange of Mauritius as they expand overseas.

Skills and Capacity Building

Although Mauritius has established itself as a sound financial centre, it is yet to address the growing gap between industry needs and human capital supply for the sector, especially in niche areas, like fund and asset management. The “skills gap” can be addressed by conducting a needs-assessment survey across the financial services industry and provide appropriate training through the “**Financial Services Institute**” yet to be established. Initiatives such as scholarship, international posting programmes, and financial leaders programme can be introduced.

Trading in African Currency Derivatives

Mauritius is ideally placed to position itself as a financial hub that offers Exchange-traded financial instruments to hedge Africa-related risks. The Stock Exchange of Mauritius can offer a range of African currency derivatives against the USD, EURO and GBP to provide international investors with hedging tools against volatile African currencies.

KEY THRUST AREAS

- (i) Contribute to the scaling-up of activities within the financial services industry to promote higher value-added services, and to attract more international players to the local jurisdiction.
- (ii) Establish the “**Mauritius International Financial Centre**” as a key intermediation centre for Africa, and to increase the relevance of the jurisdiction by taking advantage of the Africa opportunity.
- (iii) Establish synergistic links among the sub-sectors of the financial services industry through a consistent, coordinated and coherent approach.
- (iv) Contribute to the development of skills and competencies required for the financial services industry.

VISION 2030

By 2030, Mauritius will be transformed into an International Financial Centre (IFC) of repute at par with London, New York, Singapore and Hong Kong. Mauritius will be a competent, clean and safe jurisdiction.

NATIONAL STRATEGIES

SHORT-TERM

- (i) A “**Financial Services Strategy**” will be formulated on the basis of an integrated approach for the development of the financial sector in Mauritius. It will establish synergistic links among the sub sectors of the financial services industry and with other sectors of the economy. The Strategy will also encourage multinational firms to establish headquarters for Africa in Mauritius (Regional Headquartering), and to leverage the Stock Exchange of Mauritius (SEM) as a unique multi-currency platform to position SEM as an attractive capital raising and dual-listing platform for Africa-focused ventures and international products.
- (ii) Develop a capacity building programme on financial services industry-lead research, expertise in African markets, expertise in specialized sectors, private equity, legal and contracts for financial service, commodity trading.
 - Improved IT connectivity and an “open immigration policy” for high-end professionals will be pursued.

- Active market intelligence will be undertaken to advise on policy options and ensure better synergy with the academia.
- (iii) In order to promote financial literacy and education, training initiatives would be undertaken on a wider scale (presently carried out by the SEM), through the setting up of a “**Financial Services Institute**” with a view to attract retail investors to participate in the growth stories of listed companies. The number of local retail investors can increase from the (current) 100,000 to 300,000 by 2020.
- (iv) A more proactive and aggressive marketing campaign will be undertaken. Mauritian embassies overseas will have a key role to play and public relation personnel will get together with industry leaders to promote the financial services sector.
- (v) Mauritius and Africa Strategy, Treaty negotiation/ Renegotiation, OECD Base Erosion and Profit Shifting (BEPS) initiative and Automatic Exchange of Information (AEOI) will serve as the other areas of focus for the financial services sector to make its mark globally.
- (vi) Appropriate legal framework would be set up to support the development of a currency derivatives platform under the SEM, and to encourage local banks to become clearing members of SEM’s derivatives platform.
- (vii) Government will drive the creation of a strong and active domestic investor base through the National Pension Fund (NPF). The NPF will make meaningful contribution to the development of a dynamic and liquid stock market in Mauritius by giving part of its funds to private local fund managers for investment on the SEM.
- (viii) The “Financial Services Promotion Agency” will support the SEM in the organization of the “African Stock Exchange Association Conference” in 2020 which will provide a distinct background for branding and creating visibility for the SEM and the Mauritian financial sector.
- (ix) Africa-gearred funds - a new ‘Incubator Fund’ and an ‘Approved Fund’ will be introduced to encourage fund managers to set up offices in Mauritius.

MEDIUM-TERM

- (x) New financial policies and incentives will be developed to contribute to the scaling-up of activities within the financial services industry to promote higher value-added services and to attract more international players to the Mauritian jurisdiction.
- (xi) The framework on anti-money laundering and combating the financing of terrorism will be reinforced to provide a safety net to the economy and uphold the reputation of the jurisdiction.
- (xii) A “Regional Reinsurance Company” will be set up and owned by all insurance companies operating in Mauritius. These companies would have to (statutorily) reinsure a certain percentage of each risk with the regional company.

LONG-TERM

- (xiii) The “**Mauritius International Financial Centre**” is established as a key intermediation centre for Africa and other international markets.
- (xiv) Government will support and encourage Global Funds and Global Business Companies structured in the Mauritian jurisdiction to raise capital and list on the SEM. If out of the 900+ funds registered in Mauritius, 10% of the largest close-up funds could be listed, and if out of the 9,000+ GBL1 companies registered in Mauritius, 100 of the meaningful ones could be listed (a mere 1%) this would not only change the whole face of capital markets in Mauritius, but also substantially raise the profile of Mauritius as a jurisdiction of repute and establish SEM as an international capital-raising and listing platform.
- (xv) The nature and scope of activities in the “**Fund and Asset Management Industry**” will be scaled up through the identification and implementation of an attractive incentive framework and aggressive marketing campaign in focused target markets to attract international fund managers to relocate their business activities in Mauritius.
- (xvi) Group and individual pensions plans would be encouraged through appropriate fiscal policy and by creating the right environment conducive to encouraging a “savings culture” through insurance instruments. Regulatory issues affecting insurance services will be addressed to ensure that the product provided by the insurers is aligned with international laws, regulations and norms.
- (xvii) Promoting an understanding of the life and general insurance markets, especially in COMESA/SADC and in Francophone Africa, that could be exploited by Mauritian insurers working independently or with multilaterals and/or global insurers through appropriately structured joint ventures.
- (xviii) In view of promoting Mauritius as a destination for “Family Offices” in India and China, an incentive package would be worked out to attract more high net worth individuals and family offices service providers.
- (xix) OTC Exchange for Gold and Precious Stone Trading - concession agreements will be entered into with African nations to source gold and precious stones, and schemes developed to attract market participants in the polishing industry.

KNOWLEDGE PROCESS OUTSOURCING

SITUATION ANALYSIS

Knowledge Process Outsourcing (KPO) consists of outsourcing of higher value added activities which require specialized knowledge and resources as opposed to simple services like call centres, and payroll processing. In mode 1 (services delivered by staff based in the off shore location) the opportunities for KPO in Mauritius fall under technical services and Business processes.

Under technical services there are local resources for Software and applications development, technical support services, engineering design services, e-commerce, and data warehousing. Under Business processes there are opportunities to promote Legal process outsourcing, medical transcriptions, logistics procurement and supply chain management, finance and accounting, and other high value added back office operations.

The talent pool in the fields of accounting, medicine, Information technology, legal services and engineering services, through their contribution to economic growth and have reached a quantitative and qualitative level which now justify a focused approach to promotion of KPO in selected target markets.

The time lag of about 8 hours with the US is a key factor of relevance in sectors like Legal process outsourcing, and logistics, procurement and supply chain management where we can offer early morning service delivery for requests submitted at close of business in the US. For the European markets, real time applications like real time technical support, and e-commerce are more relevant.

KPO is expected to provide exposure to best practice that will create spillovers of knowledge to local sectors and other sectors. Professional, scientific and technical services made up 5% of GDP in 2014, showing a growth of 8.1% from 2001 to 2014. According to the IMF, they are the fastest growing export service with an average growth rate of 7.6%. Although India and other emerging Asian countries have captured a large share of KPO from developed countries, there are niche markets which can be tapped based on our bilingual status, time zone and quality to price ratio of our human resources.

Promotion of KPO in developed markets will have the added advantage of creating a wider global awareness of investment opportunities in Mauritius which can trigger interest in FDI from these countries.

Mode 4 is another form of export of services which requires physical movement of persons to the country to deliver the service. The target market in this case is the region and Sub Saharan Africa. Up till now it has been limited mostly to construction professionals and companies intervening in Seychelles and the larger accounting firms intervening in Africa.

The development of Mode 4 export is closely linked to the Africa strategy and can benefit from Government to Government bilateral and multilateral cooperation agreements.

CHALLENGES AND OPPORTUNITIES

The professional services market in Africa remains limited due to complex market structures and market fragmentation. In terms of commercial presence accounting and auditing service firms with foreign affiliation dominate the market, but there is only a limited presence of foreign engineering firms operating across the region.

Domestic regulation on the entry and on the operations of professional services firms often undermines competition and constraints the growth the professional services markets. As a means to curb discriminatory procurement, steps must be taken by organizations such as the SADC and the COMESA to relax explicit trade barriers applied by African countries to the movement of natural persons, establishment of commercial presence, and cross-border of professional services,

Due to the strong presence of South Africans in Southern and Eastern Africa and Ghana in West Africa, the best prospects for Mauritius taking into consideration our bi lingual status is to offer mode 4 services in selected French speaking West African countries where Mauritian professionals can offer 1st world quality services at prices more prices than European counterparts.

Due our limited supply capacity there is a need to focus on a few countries and a few sectors in West Africa. Economic diplomacy through an embassy and a bilateral cooperation approach is the route to follow to develop a Government to Government collaboration framework on sectors of strength like Sugar technology with power generation from Cane biomass, Design, construction and operation of Business hotels, textile sector including yard and fabric from cotton, Setting up regulatory frameworks for energy production and distribution.

Mozambique and Malawi have scarce professionals compared to Mauritius. In addition the Big Four in Mozambique indicate that they face shortage of professionals because many applicants have poor academic qualifications. South Africa suffers from shortages of chartered accountants, auditors and engineers. About half of the small and micro firms in Southern Africa indicate that they outsource accounting services. Large and medium firms make high use of outsourced legal services and engineering services, but not smaller firms.

The challenges for KPO from Developed economies to Mauritius lies in making direct contact with potential clients like law firms for LPO, and Pharmaceutical companies for clinical trials. Since Mauritius is not yet a recognized supplier of KPO, there is a need for a cluster approach facilitated by a Government promotion agency. Promotion of mode 1 Export of services suffers from a lack of support and diverse institutions.

The other export services such as medical tourism and knowledge hub also suffer from lack of exposure and marketing.

KEY THRUST AREAS

Raise cooperation, coordination and awareness on export of professional services. This is essential to realise the potential of the sector. Although there are some firms which are currently exporting professional services like in financial services, there is a need to ensure that the sector can work together to promote collective interests and improve competitiveness. Create a single organization to market the services sector in a comprehensive and effective manner. Sector-wide awareness and promotion will bring together professional services firms and collectively improve the standard and quality of service to internationally recognized levels. Therefore, we will raise the profile of the sector nationally to obtain widespread support and commitment for the implementation of the strategy, and encourage all professional services firms to consider exporting.

Increase competitiveness of firms. Export Marketing Training Programmes which includes proposal writing, B2B networking, and developing export marketing plans will be provided to increase the competitiveness of firms and their credibility in the international context. To gain credibility, the various associations must gain recognition through membership of international bodies. Where additional training is needed, training and certification programmes will be delivered and implemented.

Improve skill and training. To ensure long-term competitiveness of the sector, improvement of skill and training of all practitioners is required. These schemes should be internationally recognised and target needs of the market and demands of the firms. These programmes will be delivered with appropriate national training and accreditation bodies and delivered on a commercial basis.

Exploit procurement opportunities in infrastructure. About 15% of Africa's GDP is tendered in public procurement for infrastructure. An assessment of total value of public procurement contracts by sector: transport infrastructure, energy, telecoms, water among others, central government, regional government and state-owned enterprises and agencies in potential countries will be carried out. The rules and ease of participation for foreign firms, including preferences or provisions within existing agreements will be assessed to identify countries with the best prospects for Mauritius. Our diplomats abroad will provide us with publications on procurement opportunities rules that will be prepared by sector and distributed to firms so that they can make use of these when developing their marketing strategies.

Encourage B2B networking. Another way to increase professional services exports is through subcontracting to larger international firms with track records and resources to secure public and private contracts. Developing such arrangements requires B2B networking by individual firms who build up relationships. Firms must establish relationships with international firms active in target markets. Once these countries have been identified and prioritised, research on the national associations and societies will be gathered. Membership of international bodies to associations, firms and individuals will be promoted as a key marketing tool. The lists and profiles of international firms will be provided to firms for

use in marketing. Participation in conferences and exhibitions attended by potential partner firms will be encouraged. A database of potential events and conferences that may attract the type of international participants that local firms can network with will be created on the websites of our High Commissions/Embassies. Participation in conferences and exhibitions attended by potential partner firms will be encouraged.

VISION 2030

Our vision is to make Mauritius a good test bed for innovative business solutions tailored to African needs and make professional services a sector that can sustain long-term growth and development in Mauritius, with spill-over effects to other sectors.

NATIONAL STRATEGIES

SHORT-TERM

- Create a unique window for promotion of export of services which will cater for KPO, medical hub and Knowledge hub.
- Awareness raising and promotion of export of professional services among Mauritian service providers
- Training in export marketing for professionals and Industry associations
- After securing a critical mass of potential exporters in each sector organize a Business to Business contact making mission though a specialized in market consultant.
- International recognition and membership by National bodies
- Courses of continuing professional training and certification
- Research on rules and opportunities in target markets
- Improve the diffusion of AMADE tender alert for donor funded projects in Africa
- Create tender alert systems in other sectors
- Support and encourage international negotiations on public procurement by bringing public procurement on the agenda and discussed in each trade agreement negotiated

MEDIUM-TERM

- Adoption of quality standards and international membership by firms
- Increase exposure of firms to international business and provide opportunities for firms to meet potential partners
- Provide platforms for networking for e.g. through trade missions where firms can meet and network with potential partners

LONG-TERM

- Liberalization of export of professional services within Africa.

INTERNATIONAL ARBITRATION

Arbitration is a method of resolving disputes by a binding and enforceable decision, allowing the parties to avoid lengthy and costly court procedures, and where confidentiality is of essence. International arbitration is arbitration between companies or individuals in different states, usually when a provision for any future disputes is included in a contract. The principal advantage of international arbitration is that the award (i.e. the arbitral ‘judgment’) is readily enforceable in more states of the world than a judgment of a national court.

SITUATION ANALYSIS

In 2008, Mauritius enacted the “**International Arbitration Act**” (“IAA 2008”) based on the UNCITRAL Model Law on International Commercial Arbitration. The object of the Act is “*to promote the use of Mauritius as a jurisdiction of choice in the field of international arbitration, to lay down the rules applicable to such arbitrations and to provide for related matters*”.

Mauritius is a signatory to the “**New York Convention**” since 1996, and the full text of the convention is implemented in the national law by virtue of the Convention on the “Recognition and Enforcement of Foreign Arbitral Awards Act 2001”.

Mauritius has also put in place institutions and systems which support international arbitration –

- (i) in 2009, under a “Host Country Agreement”, the “**Permanent Court of Arbitration**” (PCA) based in The Hague - which exercises administrative control over international arbitration - opened its first overseas representative office in Mauritius. This development assists Mauritius with the discharge of its functions under the International Arbitration Act 2008,
- (ii) the IAA 2008 also established the “**Mauritius International Arbitration Centre**” (MIAC). In 2011, the MIAC entered into an agreement with the “**London Court of International Arbitration**” (LCIA) which gave birth to the “**LCIA-MIAC Arbitration Centre**”. This was a milestone as it allows international arbitrations taking place in Mauritius to be governed by a reputable and respected legal institution,
- (iii) in 2013, a special group of “Designated International Arbitration Judges” was appointed in the Supreme Court, who hear all matters under the IAA 2008 that come before the Mauritian courts, and
- (iv) the Supreme Court (International Arbitration Claims) Rules have been amended with modern and highly-efficient procedural rules for arbitration-related cases before the Supreme Court.

It is to be noted that the International Arbitration Act 2008 regulates only international arbitrations taking place within the country. Domestic arbitrations are governed by the “Code de Procédure Civile”.

CHALLENGES AND OPPORTUNITIES

Arbitration awards are enforced in the Supreme Court, and decisions regarding enforcement can be appealed to the Judicial Committee of the Privy Council. On average, it takes around 16 weeks to enforce an arbitration award rendered in Mauritius, from filing an application to a writ of execution attaching assets (assuming there is no appeal), and 11 weeks for a foreign award. (*The World Bank*).

The legal and regulatory architecture enables Mauritius to stand as a major international financial centre for parties doing business in, or investing in, Africa and India. Mauritius has, to date, successfully concluded 47 “**Double Taxation Avoidance Agreements**” (DTAAs) and 44 “**Investment Promotion and Protection Agreements**” (IPPAAs) worldwide, and as such the “Global Business Sector” becomes a likely candidate for arbitration services in the country. Both India and China could be significant arbitration markets for Mauritius, especially in view of the increasing amount of investments in the African regions that are / would be routed through Mauritius.

On the other hand, as foreign investment into Africa grows, so will the demand for dispute resolution. Mauritius is well poised to provide an alternative to London, Paris and Geneva for dispute resolution for the African business community. However, it will have to compete with jurisdictions like Johannesburg, Kigali and Lagos on the African continent, and Singapore and Malaysia on the Asian continent.

KEY THRUST AREAS

To emerge as a “*Centre par Excellence*” in international arbitration in the Africa region, Mauritius has to build a competitive edge in terms of costs, neutrality, and expertise of arbitrators. Mauritius can rest on its inherent advantages to strengthen its position in the region. These include -

- (i) a system of legal rules at the arbitral seat which is fair and efficient,
- (ii) respect for the rule of law - Mauritius has an independent judiciary which has a strong tradition of civil law, and which is respectful of the fundamental precepts of international arbitration, and the mixed legal system (a hybrid of Common Law and Civil Law),
- (iii) tradition of democracy - the Constitution guarantees the separation of powers of the Judiciary, the Executive and the Legislature,
- (iv) the country’s central (geographic) location as the gateway between Asia, Africa and Europe, within easy access by air transportation, and digital connectivity,
- (v) Mauritius is politically stable, and perceived as a neutral country in the region,
- (vi) Mauritius leads the league of African nations in terms of “Good Governance” practices,

- (vii) Mauritius is a member of the African Union, the Southern African Development Community (SADC), and the Common Market for Eastern and Southern Africa (COMESA), and
- (viii) the country can boast of a pool of multilingual and experienced professionals (legal counsel, accountants, experts in international trade and finance) in arbitration-related matters.

NATIONAL STRATEGIES

The innovative refinements brought in the Mauritian legislation aims to make the regime more efficient, fast and attractive to international parties, and to usher a new “pillar of service provision” that has the potential to boost the Mauritian economy.

The hosting of the prestigious 23rd “International Council for Commercial Arbitration (ICCA) Congress” in May 2016 – a first in Africa - has given legitimacy to the country as a venue of choice for international arbitration in the region, and to boost its status as an international and cross-border business and investment hub.

SAFETY AND SECURITY, LAW AND ORDER

SITUATION ANALYSIS

Mauritius has a well-established system that guarantees safety and security of people and property, and for the upkeep of law and order. These include -

- (i) the **Judiciary** which is responsible for the administration of justice, and has as mission to maintain an independent and competent judicial system which upholds the rule of law, safeguards the rights and freedom of the individual, and commands domestic and international confidence. The Constitution provides for the institution of an independent judiciary which is based on the concept of separation of powers,
- (ii) the **Attorney General's Office** which interacts with the Legislature (National Assembly), the Judiciary (Courts) and the Executive (Government/Ministries). Its objectives are to provide sound and independent legal advice and representation, to contribute in the development of a fair and just legal system, and to promote the rule of law in the interest of the State and the people,
- (iii) the **Mauritius Police Force** which is the national law enforcement agency, and has as objectives to enhance the quality of life of the population by preserving public peace, enforcing the law, ensuring a safer environment while focusing on service excellence, and
- (iv) the **Mauritius Prison Service** which serves society (a safer Mauritius) by keeping detainees in safe and humane custody, and help prepare them for a useful life through best correctional practices.

The evolution of Crime, Justice and Security statistics are as follows –

Republic of Mauritius	2000	2010	2013	2014
Overall offence rate (excluding contraventions) per 1,000 population	30.9	37.4	33.3	33.3
Intentional homicide rate per 100,000 population (committed) <i>of which murder</i>	2.6 2.3	4.1 2.8	3.3 2.7	2.4 1.5
Property offence rate per 1,000 population	12.8	14.7	12.0	11.7
Drug rate per 1,000 population	2.1	3.2	2.6	2.9
Road traffic contravention rate per 1,000 population	45.9	130.7	168.1	178.3
Juvenile delinquency rate per 1,000 population	1.0	5.4	5.5	5.8
Conviction rate ¹ pronounced in court per 1,000 population (excluding contraveners)	14.5	23.8	22.0	20.8

Republic of Mauritius	2000	2010	2013	2014
Imprisonment rate per 100,000 population	<i>n.a</i>	192.0	200.0	183.2
Average prison occupancy level (%)	<i>n.a</i>	112.6	110.1	76.9
Road Traffic Accidents	18,278	21,243	23,563	26,400

Source: Statistics Mauritius, Crime, Justice and Security Statistics & Road Traffic Accidents 2014

¹ Number of offences that led to convictions (as opposed to the number of persons convicted) per 1,000 population

n.a: not available

CHALLENGES AND OPPORTUNITIES

SOCIAL AND ECONOMIC IMPACTS

The deterioration of law and order has a direct impact on the social and economic environment. The rising crime rate, sexual violence, burglary, and thefts have a direct effect on the security and comfort of the citizens. Theft, assault and murder of foreigners and tourists have tarnished the image of Mauritius as a place to visit and to invest. In 2014, around 15% of the overall offences were linked to crimes (2%) and misdemeanors (13%)³. In the same year, there were around 2,276 detainees in prisons, and on average Rs 700 was spent daily for their maintenance. Unemployment and poverty have contributed to the deterioration of law and order. Surprisingly, there has been an increase in juvenile delinquency – drugs, road accidents, teenage pregnancy, and violence at home.

DRUG TRAFFICKING

Drug abuse and illicit trafficking are a matter of serious concern. In recent years, incidents of drug use and trafficking into Mauritius have increased, and the country is regarded as a “*plaqué tournant*” in the Indian Ocean. The estimated market value of all drugs seized in 2014 was Rs 237 million. The Police have limited capability to secure the borders due to the expansive coast line and proliferation of small water crafts.

INTELLECTUAL PROPERTY THEFTS

Intellectual theft is a concern for Mauritius. Counterfeit goods and brand-name products (clothing items, jewelry, watches, softwares) are readily available in shops, markets, and on the roadsides in violation of Intellectual Property Rights (IPR) laws.

ROAD ACCIDENTS

³ Statistics Mauritius, Crime, Justice and Security Statistics 2014

Over the years, Mauritius has witnessed a spike in the number of fatal road accidents. Between 2000 and 2014, road accidents have increased by 44%. This is due to a rise in the number of vehicles (especially two-wheelers), coupled with a lack of discipline among drivers, pedestrians, cyclists, motorcyclists, drunk driving, speeding, hit and run cases. Two-wheelers are more prone to fatal accidents, and most fatal accidents are caused by young drivers. The cost of accidents to the economy was estimated at **Rs 6 billion in 2015**.

VIOLENCE IN SCHOOLS

Violence and indiscipline in schools is a cause of concern for the authorities. In the past, indiscipline in schools was limited to unruly behaviour in class, truancy, theft, damaging school property, bullying, extortion, rowdiness, use and writing of foul language. Now, the youngsters have graduated to smoking, assaulting teachers, consuming alcohol and drugs, and gang fights.

CYBER CRIME

In the “**2015 Internet Security Threat Report**”, Mauritius was positioned in sixth place for the most vulnerable countries of the African continent in terms of cyber-espionage. Since Government is encouraging e-service facilities, the interconnection of systems is a source of vulnerability for the economy and of personal privacy. Overseas, cyber criminals have infiltrated company data and held organizations at ransom, and in Mauritius banks have been the target of hackers. The advent of social media has witnessed a rise in “digital extortion” of all kinds.

CORRUPTION

The “perception” of corruption is on the rise in Mauritius following the increasing number of alleged cases of fraud and corruption. This state of affairs has a negative impact on the image and reputation of Mauritius as a safe jurisdiction to invest. The main drivers of corruption in Mauritius include the complicated relationship between business interests and politics, an opaque party financing system, lack of citizen oversight, and the partisan attitude of investigative bodies⁴. However, in 2015 Mauritius was ranked 45 (out of 175 countries) by Transparency International in its “Corruption Perceptions Index”.

KEY THRUST AREAS

The Key Thrust Areas are as follows -

- (i) at the heart of this Vision is the transformation of the society which relies on a change of mindset, and upholding the moral and ethical values that the country can pride itself. This change is vital if the country is to significantly reduce crime and violence, improve education and training

⁴ Transparency International – Corruption Perception Index 2015

- outcomes, advance the development of infrastructure, increase productivity, and create the proper environment for the Second Economic Miracle, and
- (ii) for the longer-term, it is imperative to provide access to justice for all, build effective, accountable and inclusive institutions, and obtain the confidence of the population in the institutions as a building block towards promoting a peaceful and inclusive society.

VISION FOR 2030

In a bid to keep the country safe and stable, the Vision for 2030 is to restore security and safety by reducing the level of crime, violence, and road accidents, and by sensitizing citizens to respect the law and order.

NATIONAL STRATEGIES

SHORT TERM

SHARED VALUES FOR NATION BUILDING

The Mauritian society has lost sight of values and ethical behavior. The upholding of moral and ethical values (based on honesty, respect, care and concern for fellow citizens) would be the driver to bring about a culture change towards discipline, work ethics, integrity, and social cohesion. The emergence of a mature, cohesive, just and tolerant society in which Mauritians of all colour and creed can practice their customs, cultures, and religious beliefs will bind together the nation and drive the emergence of a movement where every citizen will be proud to be a Mauritian.

The strong family nexus will be the platform for different generations to share / transmit values and experiences, uphold traditional values, and strengthen the role of parental care and supervision over their children to manage antisocial behaviour. A good example is the Japanese society where “core values” are deeply rooted since the nursery days, and play a critical role in everyday life.

More attention will be devoted to raising the “happiness” of the nation – measured by six factors GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity and perceptions of corruption⁵. “Happiness” will be used as a criteria for formulating government policy in the drive to uphold the quality of human development and to fight growing inequality. Mauritius ranked 66th (among 156 countries) in the World Happiness Report 2016.

SAFETY AND SECURITY

⁵ UNSDSN -World Happiness Report 2016

Safety is a precondition for human development and improving quality of life. Citizens should be educated on preliminary safety and security skills since early childhood.

The Police force will enhance service delivery through the use of modern technology, e.g. Crime Occurrence Tracking System (COTS), Electronic Registry, Traffic Management System, Intelligent Traffic Systems (ITS), Border Control System, installation of CCTV, speed cameras, Advance Passenger Information (API) System and real time 24/7 connectivity.

More surveillance cameras (**CCTV Cameras**) would be installed in vulnerable and accident prone areas. These cameras would assist in enquiries in criminal cases, including “Hit and Run” cases. Legislation would be strengthened for those who drink and drive, are involved in fatal road accidents to have their licenses permanently revoked.

The “**Community Safety Volunteer Programme**” aims to empower the community in safety issues. Volunteers are deployed at high risk areas, and provide safety to the public through visibility and sheer numbers. These volunteers are contact points for the Police and other departments for information gathering and obtaining feedback.

As regards the fire services, the personnel should be trained and provided with the latest fire-fighting equipment, including turntable ladders given the increasing number of high-rise buildings. In the same vein, the construction industry should impose norms for fire prevention and protection equipment in public and commercial buildings. Safety and security education and drills should be introduced in schools.

As regards to foreign workers coming to Mauritius, all clearances (medical and criminal) should be obtained before allowing them to work and stay in Mauritius.

Inspections and patrols (on land and sea) will be stepped up to fight trafficking of contraband goods and firearms

EDUCATION AND PREVENTION

An important component in the fight against drug abuse and illicit trafficking is education and counseling. The country will embark on a comprehensive national education and prevention campaign to sensitise the population, including students and the youth.

MEDIUM TERM

JUSTICE SYSTEM

There is need to maintain a fair and efficient justice system, and put in place a service-oriented approach towards litigants and members of the public. The process will include the establishment of a technology-based national criminal justice information database, setting up of a Service Relations Unit, flexible and

extended Court working hours, and continued and specialised training for Judicial and Legal professionals and other Court personnel. A timeframe should be imposed for the hearing and disposal of cases in the Courts.

The following measures are being envisaged to enhance the quality of service provided -

- setting up of a Service Relations Unit to process requests for information and channel complaints,
- flexible and extended Court working hours,
- reorganisation of Small Claims Tribunal and of Court services for Road Traffic Contraventions, and
- continued and specialised training for Judicial and Legal professionals and other Court personnel.

DISCIPLINE IN SCHOOLS – MORALITY CODE AND PROTOCOL

To monitor closely any form of violence, indiscipline or deviant behaviour, schools will be provided with a “Morality Code” drafted in consultation with stakeholders. Each primary and secondary school student will have a “Morality Code” or “Chart of Good Behaviour” pack that lists the internal rules, including the rights and obligations of students, sanctions, practical rules, policy and functioning of the school, etc. The Code / Chart will be signed by parents who would be aware of the sanctions attached to breach of discipline.

A “Protocol” relating to the prevention of violence in schools will be developed with the objective to improve security inside and in the immediate school environment. Under this protocol, a Police Officer will be responsible for an institution, and heads of institutions, Ministry Officials, parents and stakeholders will meet regularly to share information on misbehaviour, indiscipline and violence in schools, and to take corrective actions.

LONG TERM

AIR AND MARITIME SECURITY

Since Mauritius is positioning to become a maritime hub, there is need to focus on safety and security at sea to combat against trans-boundary crime, such as piracy, armed robbery and terrorism, trafficking and smuggling of people and weapons. Appropriate legislation would be devised and logistics provided (offshore patrol vessels) to safeguard the territorial integrity of the country’s maritime zones. Sophisticated super tugs and twin engine helicopters would be used for both surveillance of the EEZ, and for air and sea rescue operations.

Maritime automatic identification system would be installed to identify and locate vessels electronically through satellites. Given its location, Mauritius could house the “regional tracking station” for this part of the Indian Ocean. Agalega would be developed as an advanced base for surveillance purposes in the region. The Air Squadron will be provided with larger aircrafts that have extended operational capabilities.

With the opening of the air corridor between Asia and Africa, the flow of passengers at the airport will increase. The airport security system will be strengthened using state of the art equipment and trained personnel to detect fraud and for profiling of passengers.

SEAMLESS INNOVATION – CYBER SECURITY

Innovation and technology are key drivers of economic growth and prosperity. However, this also calls for the implementation of cyber security infrastructure. The cyber security platform will be provided with the latest equipment to detect infringements at an early stage, and for mitigating actions to ensure the integrity and reliability of data and information flows.

HALFWAY HOUSES FOR PRISONERS

The main objective is to reduce the rate of recidivism. Towards the end of their sentence, prisoners will be sent to “Halfway Houses” (also called “Community Corrections Centers” or “Residential Re-entry Centers”). Halfway houses will provide a range of services to detainees (e.g. employment services, educational programs, cognitive therapy groups, financial counseling, life and parenting skills classes, anger management classes, behavior medication programs, spiritual programs, domestic violence counseling) such that they can easily re-integrate society after their sentence.

COUNTER TERRORISM EFFORTS

While innovations in technology, communication, and transportation have contributed to improvements in standards of living, progress has also created a borderless network of highly motivated adversaries (terrorists) who act unpredictably and with increasing levels of ferocity around the world. Terrorism has today become a major concern to all governments and poses a significant threat to a country’s values and way of life. The large geographic territory of the maritime zone, and the open and direct air access, have to be reasonably assessed.

The rise of terrorism in the South West Indian Ocean is a potential threat to the country’s national stability and security. Mauritius has not been affected by any terrorist incidents, and the country is working closely with neighboring countries and regional partners to ensure continued peace and stability in the region. As a preventive measure to mitigate terrorist threat, the country’s agency will be strengthened with a multi-disciplinary pool of experts and provided with latest technology to collect and analyze intelligence, and to disseminate information to the enforcement agencies.

CRITICAL INFRASTRUCTURE PROTECTION

Critical infrastructure assets, networks and systems (e.g. the essential services like water, power plants, transportation, communications, port, airport, hospitals) that form the backbone of the country, and are vital to the public and the nation’s well-being, would be physically secured to withstand and rapidly recover from both man-made and natural hazards, including cyber attacks.

EDUCATION/SKILLS DEVELOPMENT

(Revised version 30th May)

SITUATION ANALYSIS

There is universal pre-primary and primary education in Mauritius and gender parity in enrollment at all levels. In 2015, the Gross Enrollment Ratios (GER) at the pre-primary and primary levels were 102% and 99%, respectively. Three out of four children of secondary age are enrolled in school. About 62% of the children entering Standard I go up to Form VI in secondary school. Education is compulsory until the age of 16 years. The GER at the tertiary level has grown at an impressive rate from 10% in 1996 to around 39% in 2014. Still, only one out of eight students entering Standard I goes to tertiary education.

Government has substantially invested in providing widespread and equitable access to education. Education expenditure accounted for 5% of GDP in 2014. Yet, the systematic failure rate of 30% at the Certificate of Primary Education examination for the past decade has led to an issue of inclusion. Today, education below the secondary level is one of the major explanations for poverty. Since 2005, education is compulsory up to the age of 16; the education system has placed those who failed the CPE in the pre-vocational education track. In 2008, nearly 60% of poor household members did not hold a CPE, compared to a 34% for households overall. Since the economic liberalization in 2005, returns on primary and secondary education have decreased while those on tertiary education have boomed. This has increased the gap between the better educated and the rest of the population.

Technical and Vocational Education and Training is provided by a proliferation of small, private providers, approximately 460 registered institutions providing both award (937) award and non-award courses (2,661). The large number and range of providers in the country make it difficult to compare the quality and qualifications of the training offered. It is hard for learners to find the adequate training option for their needs and for employers to know what to expect from a graduate of a particular TVET provider.

CHALLENGES AND OPPORTUNITIES

The free public education system provides all children with full access to education, but because many households finance private schooling and tuition there are highly unequal education outcomes.

In addition, using the CPE as a selection mechanism for secondary school results in unequal education outcomes such as substantial regional disparities across Mauritius. This translates into a very selective system resulting into a very high inter-school variance in reading performance, since students with similar abilities and socio-economic backgrounds are clustered together. Furthermore, children fail to acquire the minimum level of education due to failing the CPE and because the overall quality of learning does not compare well with other middle-income countries.

Consequently, although most children attend and complete primary education, they lag behind their peers in comparator countries with regard to basic literacy, math, and science skills. These low learning

achievements suggest that a large segment of the population lacks the necessary literacy and math skills to meet today's labour market demands, hampering their employment and income prospects.

TVET is fragmented and undermines the development of the skills needed for the knowledge economy. Overall, TVET supply remains marginal with enrollment rates far below those registered in other knowledge-oriented economies. Excluding part-time students who are mostly in apprenticeships, enrollment in TVET represents less than 3% of the total secondary enrollment, well below the average for East Asia or even sub-Saharan Africa.

TVET supply is not well aligned with market needs. The design and delivery of skills programmes of the National Training Certificate course have a misplaced focus on low-skill levels. There is a lack of communication mechanisms between the private sector and the TVET system on the needs and requirements of the labour market.

Furthermore, there is an acute shortage of qualified teachers in certain trade areas due to difficulties in hiring trainers as well as high staff turnover. Trainers must have sufficient industrial experience and adopt student-centered and efficient teachings to ensure the acquisition of skills and competencies. At the same time, obsolete training equipment, particularly in industrial trades, has reduced the effectiveness of TVET in meeting the requirements of a modern economy. Finally, training institutions often do not track the employment of graduates and valuable feedback from past trainees is lost.

Mauritius ranks 54th in higher education and training. It compares unfavorably with countries like Chile and Malaysia. These ratings are the result of low enrollment rates in tertiary education, weak collaboration between universities, research and industry, and low availability of scientists and engineers. Although efforts have been made to increase the number of researchers and doctors in tertiary education, only 45% of teachers at the University of Mauritius hold a doctoral degree.

Inadequate skills are holding back the potential of the economy to diversify and increase competitiveness. For instance, the ICT sector is showing signs of deceleration despite its considerable potential for growth, partially due to a lack of skills. To be able to export sophisticated products with higher-value added, Mauritius needs a labour force capable of adopting new technologies and of embracing new processes. However, half of the firms across all sectors in Mauritius note the constraint of limited pool of workers with inadequate qualifications and skills. As the technological gap between Mauritius and advanced economies narrows, the need for education and skills at all levels grows.

One of the most problematic factors for doing business in Mauritius is the inadequately educated workforce. The current education and training system does not deliver the skills that the service-oriented knowledge economy demands. Recent graduates require substantial time to secure a job, showing the skills mismatch between the quality and relevance of skills provided by the education system. This results in underemployment, since many jobs do not require many of the degrees earned.

Moreover, according to Mauritian employers many employees have qualifications but lack the appropriate skills. Employment surveys also reveal that it is even more difficult to find employees with appropriate experience and proper attitudes

KEY THRUST AREAS

- A.** Provide a deeper learning environment in order to nurture and grow a learner who is a problem solver, critical thinker and an effective collaborator and communicator.
- B.** Implement the nine-year schooling which proposes to convert the CPE into a diagnostic test instead of using it as an ‘early tracking examination’ to allow students to choose between the academic and training track. However, there are issues that may face controversy, such as among teachers that currently benefit from the tuition system and parents that have high expectations for their children to attend the most sought-after public secondary schools.
- C.** The education system will place emphasis on Science, Technology, Engineering and Mathematics. (STEM). The innovation system of Mauritius ranked 76th in the 2014 global competitiveness index, far behind other middle-income countries. This undermines the country’s ability to attract additional FDI and to absorb global knowledge and technology.
- D.** E-learning platforms will be used to reinforce curricula, enhance communication and bridge gaps in access to quality education. Through e-learning platforms, students will be provided with supplementary learning content to study voluntarily at home through the internet to reduce the cost of private tuition.
- E.** Develop a more relevant curriculum for TVET that includes “soft skills” such as training/experience, team work and interpersonal skills, and leadership and decision making skills
- F.** Internationalization of the University of Mauritius and University of Technology will be increased, as they are fundamental for small knowledge economies to be associated with academic and student mobility as well as maintain close links with international firms.
- G.** Global benchmarking will be encouraged for the continuous improvement of UOM and UTM.
- H.** **Expand the tertiary sector to increase enrollment to 72% in 2020.** Having a degree is fundamental for being employed and the benefits of obtaining a post-secondary degree have increased over time. Expanding tertiary education will allow for a higher share of low income and middle class enrollment, and as more tertiary graduates enter the labour market, returns to tertiary education will start to decrease, albeit slowly. These two factors may lead to a broader distribution of assets, thus contributing to more equity and shared prosperity. This will expand the middle-class, considered important for the development of high-income economies.

VISION 2030

Our vision is aligned to SDG 4, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

NATIONAL STRATEGIES

SHORT-TERM

1. Enhance early childhood development in the context of the 9-year schooling
2. Place a strong focus on literacy and numeracy in the early years of students
3. Provide early childhood intervention – social, medical, psychological and educational – targeted towards children and their families, to meet the special needs of children who show risk of some degree of delay in development
4. Provide inclusive education by ensuring children with special education needs are included within mainstream education
5. Review our definition of literacy to align it with the functional skills, including science literacy, required by today's knowledge-based economy
6. Develop the capacity of students to be autonomous learners
7. Ensure that each student receives the instruction he needs to compensate for his home background by monitoring and intervening at the level of the individual student
8. Shift from traditional teaching methods to the adoption of innovative pedagogies for effective learning
9. Introduce selection procedures designed to test skills and attributes of applicants for the post of teacher, such as a high overall level of literacy and numeracy, strong interpersonal and communication skills, a willingness to learn and the motivation to teach
10. Improve the quality of instruction by:
 - Providing for more practical classroom experience for trainee teachers
 - Placing coaches in schools to support teachers. The coaches will provide feedback, model better instruction and help teachers to reflect upon their own practice
11. Create incentives for industry to collaborate more closely with universities/TVET institutions to reshape their curriculum
12. Carry out tracer studies on past trainees/graduates to estimate employment rates
13. Revamp existing training schemes and formulate new schemes driven by industry needs to absorb failed Forms III and V
14. Provide courses and degree programmes that correspond to industry needs
15. Integrate degree programmes with apprenticeships/internships along with job placement
16. Provide more platforms for ongoing interactions between industry and public
17. Strengthen participation of the private sector at the decision-making level of academic institutions/TVET
18. Allow lecturers sabbatical leave to work in industry
19. Motivate private sector to provide a project list for students conducting their dissertation
20. Recognition of university degree by professional bodies and joint provision of short professional courses as topping-up course
21. Provide industry-related professional certifications

22. Set up a Dual Training Programme to address the problem of unemployment and skills mismatch through placement and training in the TVET sector
23. Review the training refunding scheme to give priority to the Dual Training Programme
24. Review the Legal and Regulatory Frameworks for Education and Training to allow private sector to provide training leading to Award Programmes
25. Enable more research collaboration between the private sector and Academia/Vocational Centres through funding schemes
26. Promote youth entrepreneurship by providing the funding mechanisms and ecosystem
27. Elaborate a Road Map for skills development in emerging sectors
28. Conduct manpower planning

MEDIUM-TERM

1. Sustain the continuous incorporation of technology into education to achieve a workforce that is ready for the knowledge society
2. Reduce duplication of courses and encourage sharing of facilities between institutions

LONG-TERM

1. Recruit from the top 30% graduates in a year to train as teachers

INNOVATION AND TECHNOLOGY TRANSFER

SITUATION ANALYSIS

Innovation is a key driver for economic growth as well as a differentiator in global competitive landscape. Over the past four years, Mauritius has moved up the ranking in the Global Competitive Index but in terms of Business and Innovation Environment its rank urge for the development of innovation to enhance entrepreneurship, investment and growth in business.

Under the Global Innovation Index 2015 and Global Competitive Index 2015, Mauritius' ranking in international indices relating to Innovation and Knowledge and Technology outputs is as follows

- **49th** on the Global Innovation Index,
- **91st** on gross expenditure on R&D,
- **102nd** on domestic resident patent,
- **93rd** on availability of scientists and engineers, and
- **101st** on University-Industry collaboration in R&D.

From the Global Competitiveness Report, it is clear that efforts will have to be invested in the quality of scientific research institutions and companies spending on R&D, university-industry collaboration in R&D, Government procurement of advanced technological products, availability of scientists and engineers and PCT patent applications, for Mauritius to evolve as a high income country which is innovation driven. Mauritius is formulating its National Innovation Framework (NIF) with the objective of promoting creativity in businesses and at enhancing techno-entrepreneurship through strong Science and Technology and Research cast within a multidisciplinary and collaborative environment.

CHALLENGES AND OPPORTUNITIES

- (i) Inadequate research, development and innovation in the private sector;
- (ii) Research effort not focused on National socio economic priorities
- (iii) The expenditure on Research and Development is low (below 1%);
- (iv) Inadequate linkages between research institutions and private sector;
- (v) Fragmentation of the public sector institutional arrangements;
- (vi) Legal and intellectual barriers to innovation;
- (vii) Weak framework for intellectual property rights;
- (viii) Human Resource constraints and lack of competencies; and

(ix) Gaps in transforming innovation into enterprises.

The rapid growth of technology is opening new opportunities for Mauritius to exploit. Trends towards cloud computing, new mobile technologies, software development and data analytics have the potential for overhauling existing sectors. The rapid emergence of wireless, broadband and media technologies is throwing up new capabilities and new ICT architecture. This will definitely create many opportunities for small/niche companies and establish a techno entrepreneurship culture in Mauritius. There is tremendous potential for businesses in Mauritius to adapt to digital technology and transform into “smart enterprises” as they are already equipped with a proper business process, revenue stream, domain expertise and clients. The new trends will attract the young generation into research and entrepreneurship. The creation of high-end and state of the art incubators will be supported.

The mega projects involving Smart Cities and new Cyber Cities will be designed on the basis of four key objectives, namely ecological sustainability, economic competitiveness, digital connectivity and with an improved quality of life within the “*Live, Work and Play*” concept.

Internet of Things (IoT) would become an essential part of running sustainable cities through smart grids and data management. The utilities organisations will be able to monitor and manage energy, water and transport systems, air quality and waste with IoT connected devices. A combination of robots, nano-technology and artificial intelligence would replace humans engaged in repetitive production, in household services, and in manufacturing segments such as metal fabrication, packaging and palletizing, welding, foundry and forging, while new segments such as automotive assembly could become one of the new industry verticals in Mauritius.

Over time, it is envisioned that data analytics, open data and data sharing will become increasingly critical as an enabler for cross-cluster innovations particularly in the healthcare, tourism, textile and manufacturing industries. 3D printing technology is expected to grow exponentially and become a new source of productivity and innovation. It is forecasted that the increasing use of 3D animation software in entertainment industry, such as 3D animation, Creative Outsourcing, 3D Modelling, Games development, Mobile applications, Augmented/Virtual Reality, etc. will be the key market driver.

KEY THRUST AREAS

- (i) Consolidating the legal framework on the protection of intellectual property rights;
- (ii) Providing the logistics support and incentives to promote the culture of research and innovation;
- (iii) Formulating innovation policies across all sectors;

VISION 2030

The vision 2030 will establish an inclusive, sustainable and innovative society in the digital era.

NATIONAL STRATEGIES

SHORT TERM

- In order for Mauritius to “leap-frog” to the next level of development and join the league of high income countries, innovation policies will have to occupy a central role in the development strategies, plans and processes. Innovation will be seen through the lens of inclusive development because it can address poverty, unemployment and health issues, environmental issues and energy provision.
- Incentives like high speed internet, prime location at low rent, and free telephone will be of essence for ensuring a proper work environment for incubators. Incubators specialized in diverse sectors (such as Ocean Technology, High Powered Computing, Biotechnology) will need to be implemented thus ensuring creation of new knowledge, jobs and wealth in a wide range of sectors.
- Mauritius will lay emphasis on gaining knowledge as much as on providing the right framework to stimulate the process of innovation and knowledge diffusion such as political stability, supportive institutions, technical and tertiary education to enhance absorptive capacity, reliable basic infrastructure, excellent provision of information and communication technology, stronger links and interaction between publicly funded research institutes and private companies as well as linkages and collaboration with renowned universities such as the IIT in India, the Harvard University in the US and the Imperial College in UK.
- Intellectual property protects the application of ideas and information of commercial value, which is important as new technologies are being developed and international trade is becoming increasingly sophisticated. The legislative framework addressing intellectual property rights in Mauritius will be strengthened to promote and protect commercialization of IP assets. Mauritius should join the WIPO IP system and adhere to the PCT and ratify the Madrid convention, Join hague system for industrial design and technology related sectors, Join Lisbon system for AOC (Appellation d'origine contrôlée) for Agro processed foods.

MEDIUM TERM

- Government will facilitate the process of creating the right framework in terms of Research, Skills and Development. The education system will include technologies learning area in the curriculum as a means of addressing the broader challenge of developing Science, Technology, Engineering and Mathematics (STEM) capabilities in the workforce. Government would, in collaboration with universities and professional forensic bodies, promote academic programs in information security, genomics, genetic research and cyber forensic. The setting up of a cyber-forensics training lab will help in imparting basic and advanced training in cyber forensics to IT professionals.
- E-commerce will encourage local SMEs to create new industries, develop new contents, and create employment. Mauritius can create a virtual mall (wholesale and retail) to provide a distribution network in Africa for Mauritian goods and the accompanying e-payment solutions. As traditional offline marketing models are already being confronted with this shift in behaviour, e-commerce will define a new shopping paradigm. Consequently, local companies will have to

compete with worldwide companies, and would adopt proactive e-commerce initiatives to explore new sales channel.

LONG TERM

- Additive transformation (3D printers) will play a significant part in industrial production systems, with positive impacts on costs, localisation of production, and the potential for the recycling of raw materials. The smart cities will create opportunities for start-ups and entrepreneurs in innovative new IoT solutions, such as smart parking, connected waste and traffic management, revolutionary technologies such as sewers, electricity, traffic lights and new energy technologies. New urban technologies will be developed and exported internationally;
- Data analytics, Open Data and Data sharing have been identified as strategic opportunities for becoming a “centre of excellence for big data analytics”. As a country with no natural resources, Mauritius should recognize the importance of analytics in unlocking the value of data. The shortage of ICT savvy human capital, institutional inertia, data storage and conflicts over balancing freedom of data use with data protection all need to be addressed if Mauritius wants to reap the full benefits of big and open data by 2030. The open data policy will cater for data security, privacy, confidentiality, and other legal restrictions.

ECONOMIC DIPLOMACY AND INTERNATIONAL TRADE

SITUATION ANALYSIS

With its development experience and strategic location on the Asia-Africa corridor, Mauritius can benefit from the growth in emerging economies. Government's Africa Strategy has been at play since the last 2 years. Government is moving ahead with an expanded Africa Strategy to give further support for entrepreneurs seeking to expand business operations into the African region.

Mauritius is ranked the most competitive economy in Africa, according to the World Economic Forum Competitiveness report 2015 and also first in Africa in the World Bank's Doing-Business 2016. With the launching of the Air Corridor, Mauritius adds a new dimension to its role in the region, riding on the rapid growth in travel between Asia and Africa and laying the basis to becoming a major transit hub. Moreover, the extension of port facilities and quays will increase the number of ships calling at Port Louis. The liberalisation of bunkering will lead to greater transshipment and the growth of feeder services to Africa eventually aiming to also bring in more competitive tariffs.

Mauritius as an export oriented country relies heavily on its trade performance to measure its economic growth. Mauritius belongs to a number of trade blocs and regional economic communities, and is engaged in new trade negotiations. Mauritius is active in the Common Market for Eastern and Southern Africa (COMESA), the Southern African Development Community (SADC) and the Tripartite Free Trade Area comprising

COMESA, EAC and SADC. Mauritius is also contemplating finalization of a comprehensive Economic Partnership Agreement (EPA) with the European Union (EU), other frameworks related to the World Trade Organization (WTO), the African Continental Free Trade Area (CFTA) of the African Union and the emerging Free Trade Area of the Indian Ocean Rim Association (IORA).

Within the Accelerated Programme for Economic Integration initiative (APEI), Mauritius seeks to promote free circulation and establishment of business persons, labour and skills, which fits in our strategy of creating proper framework and conditions for facilitating trade liberalization, establishment of business persons and investment in the countries. Challenges and Opportunities

The challenge is to steer our economy towards a growth path of at least 5% annually to realise the Vision 2030 and to attain the high income country status and avoid the middle-income trap. Appropriate policies and measures will have to be implemented to further diversify our economy, boost private investment and employment creation, raise productivity to global competitiveness levels, embed digital technology in our development strategy and strengthen our economic resilience in order to achieve the second economic miracle guided by the fifteen-year development vision.

There is a need for a paradigm shift in our industrialization and trade patterns. Aiming for a high income economy cannot continue with traditional exports of primary products. There is need for a coherent and

aggressive export policy in both regional and global trade by diversifying our exports in innovative manufacturing and services sectors in the economic trade blocs in which Mauritius is a member.

Further, as China begins to shift from an export-oriented economy to domestic consumption, Mauritius needs to prepare to tap into the manufacturing of light goods that may be created directly by China's diminishing share of these outputs or indirectly when the next manufacturing states possibly of other Asian economies lose their competitive advantage in the sector. Here, Mauritius has significant experience in light manufacturing and industrialization around which to build an export market, through trade in goods and services, under the Tripartite and various African trade agreements of which it is party. The framework on talent mobility being pursued by Mauritius with its African trade partners could be another opportunity for Mauritius to export professional services toward industrial development of the African continent.

Under the Economic Partnership Agreement with the European Union, there are huge opportunities in the short and medium term for export of sophisticated products, both agricultural and electronic, for example high value fish.

City economies like Singapore and Hong Kong have achieved high income country status through the export of high value services in finance, trade and logistics. The new opportunities in trade in services are matched by new challenges such as producing highly qualified professionals and skilled workers to support the country's comparative advantages in trade in services; keeping up with timely and relevant innovation in products and services; withstanding intense price wars that squeeze out inefficiencies and transform supplier relations; soaring quality requirements that eliminate those unable to meet them; and new competition on the national front, with more imports and locally-based multinationals.

Furthermore, many producers, are excluded from mainstream and added-value markets, or only access them via lengthy and inefficient trading chains. Intense lobbying to be done at the level of the World Trade Organization so that producers realise the social benefits to their communities of traditional forms of production. By promoting these values, it enables buyers to trade with producers who would otherwise be excluded from these markets. It also helps shorten trade chains so that producers receive more from the final selling price of their goods than is the norm in conventional trade via multiple intermediaries.

A coherent and coordinated approach in our export policy is needed for Mauritius to be able to tap the enormous potential available under the trade agreements concluded and forthcoming ones.

One of the factors hindering the progress of Mauritius towards an innovation driven economy, is the weak framework for intellectual property (IP) rights. Local industries and SMEs are not equipped to compete globally on innovative products and foreign investors do not feel secure due to the high costs and complexity in the current weak IP framework. A policy decision is needed to sign and ratify applications, conventions and Instruments.

For many developing and transition economies the services sector provides extensive export opportunities, which, if exploited, can provide considerable impetus to the national objectives of employment generation, skills enhancement and poverty reduction. The services sector's export capacity

can provide a major boost to both export performance and the drive towards overall economic development.

KEY THRUST AREAS

- Focus on intensive political approach to investment and fair trade in emerging economies (Africa, Latin America, Central and Eastern Europe, Eastern Mediterranean Europe and Middle East Africa and India)
- Mauritius as an investment and trading platform within the ‘Golden Triangle’ linking Asia, Middle East and Africa
- Bilateral Cooperation with likeminded countries (APEI, Tanzania
- Togo / Burkina Faso) to develop a clearer and stronger economic diplomacy
- strategy so as to pursue our economic interest
- Bilateral economic diplomacy through State visits in order to derive the full commercial benefits of regional trade
- Enhancing the role of our foreign missions with greater emphasis on trade promotion through our Embassies; furthermore, It is absolutely necessary for our foreign service to be staffed with specialists in economic diplomacy which can be termed as “business diplomats”
- In the light of the changing economic weight of partner’s review location of our embassies
- Leveraging Trade Agreements and beyond to strengthen exports of goods and services of Mauritius
- To make export of services as one of the pillars of the economy.
 - Upgrading of the IP protection framework required to move towards an innovation driven economy
 - Identify opportunities for support to SIDS and ensure that the concerns of Mauritius are taken on board in all important fora addressing issues related inter alia to climate change, economic development, financing for development, ocean economy and request for an Equity Tax to protect domestic production.

VISION 2030

To develop and implement foreign policy objectives, including regional integration initiatives and promotion of international fair trade relations, that aim at safeguarding and advancing the interests of the Republic of Mauritius for an inclusive and sustainable development of Mauritius.

NATIONAL STRATEGIES

As the trend toward increased economic interconnectedness is expected to continue, countries throughout the world will need to ensure that they have the policy frameworks in place to capture the benefits of trade and manage the risks.

SHORT TERM:

- Reiterate the sovereignty of Mauritius in international fora
- Dissemination of information to SMEs on 6600 products eligible for export under AGOA

- Successful operationalisation of the Commonwealth Climate Finance Access Hub
- To develop and strengthen relation with West Africa (opening of diplomatic missions / consulates)
- Follow as a matter of priority the UN processes relating to the implementation of SDGs and strive for ownership of the decision making process of marine biological diversity in Areas Beyond National Jurisdictions(ABNJ)
- Ensuring security in South West Indian Ocean waters and in our Exclusive Economic Zone (EEZ).
- Finalization of comprehensive Industrial Property Bill together with the accompanying Regulations and establishment of an empowered Intellectual Property Office and an Intellectual Property Council
- Protection of new IP rights and handling international applications under WIPO-administered treaties, such as Patent Cooperation Treaty (patents), Hague (industrial designs), Madrid (trademarks) and Lisbon (Registered designation of origins)
- To make a case to WTO for a special and differential treatment due to our Vulnerable Small Island Developing state status
- Assess the impact of Multilateral trade agreements on Mauritius
- Development of regional strategies and action plans for the promotion of the ocean economy pillar
- Strengthen Mauritius diplomatic representations in regions of economic interest
- To negotiate for reciprocity regarding visa waiver with focus on selected West African countries, with a view to facilitating the movement of Mauritian nationals.
- Opening of diplomatic missions / consulates
- To facilitate market access for the export of services

MEDIUM TERM:

- Promote a “Made by Mauritius” label in selected countries in West Africa for Mauritian entrepreneurs to combine their expertise with abundant natural and labour resources to produce goods eligible under AGOA, to be competitively shipped to US east coast
- Bidding for a non-permanent seat on the UN Security Council and Human Rights Council
- Creation of a Legal and Treaty section
- Actively participate in negotiations of an international, legally-binding instrument under UNCLOS on the conservation and sustainable use

LONG TERM:

- Improving food security in Mauritius with the cooperation of friendly countries
- Comprehensive Economic Partnership Agreement with USA and ASEAN countries
- Conclusion of CFTA including trade in goods, services and Investment
- Transformation of the AU into an Economic Union
- Opening of opportunities in the services sector across the major economies
- To develop and strengthen relations with Latin American countries including Argentina, Brazil, Colombia, and Cuba

- To work towards the deepening of cooperation with Eastern European countries including Georgia, Estonia, Bulgaria and Serbia
- Enhance and initiate collaborative efforts with the Caribbean and Pacific Islands
-

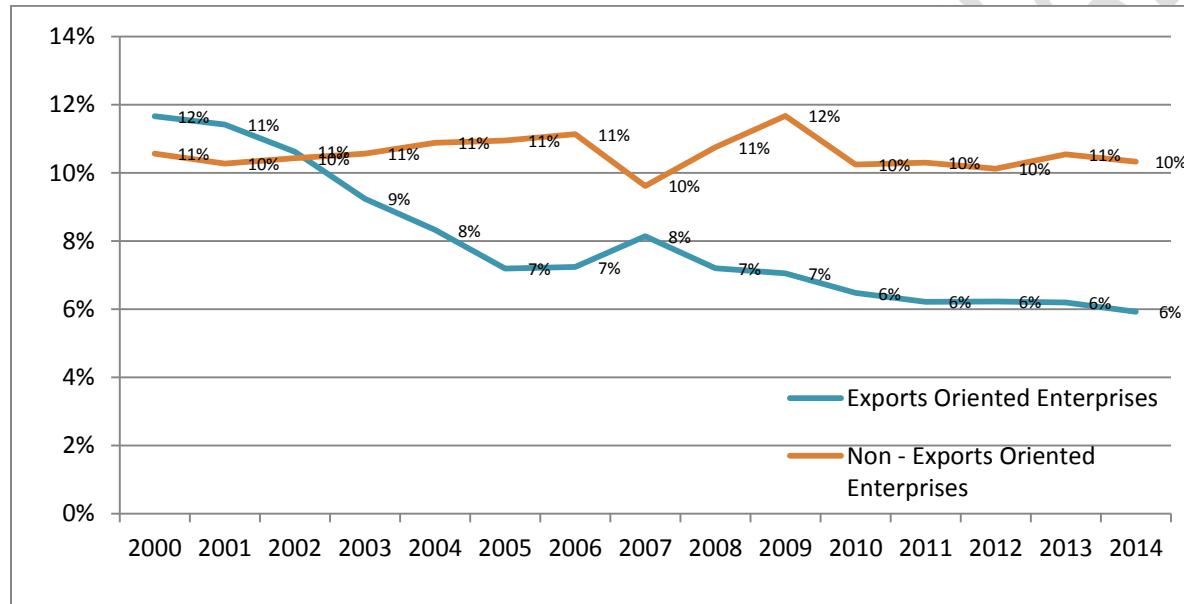
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TRADE AND CONSUMER PROTECTION

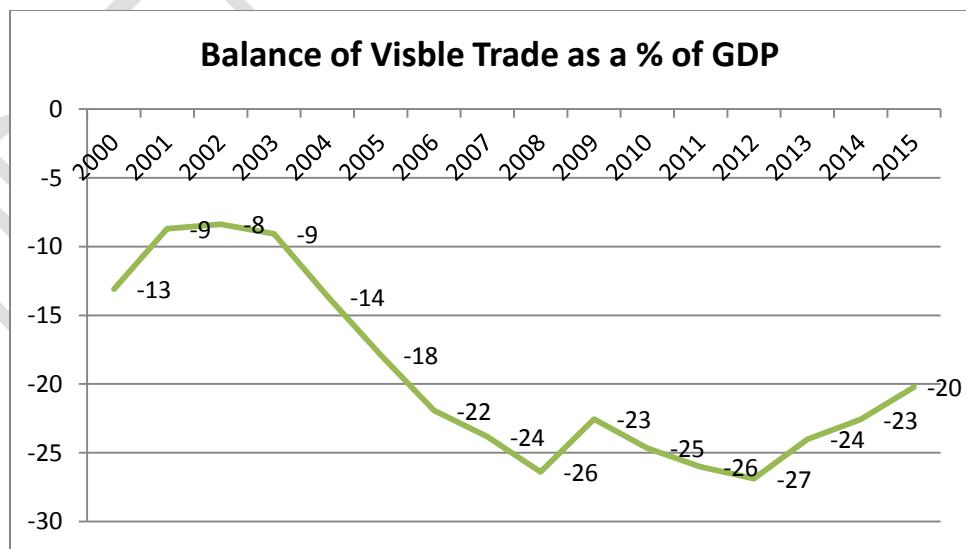
SITUATION ANALYSIS

Over the last 15 years the relative contribution of the Export-oriented manufacturing enterprises (EOEs) has declined from 12 % to 6 % of GDP.

Over the same period the contribution of non-Export-oriented enterprises (non-EOEs), to the GDP, has remained fairly stable around 11 %.



Contribution of Manufacturing enterprises to GDP (2009-2014)



Balance of visible trade as a % of GDP

Challenges and Opportunities

Over the last 10 years, the balance of visible trade as a % of GDP has deteriorated from 10 % to 20 %.

This shows that with Mauritius becoming an increasingly open economy, the accelerated dismantling of tariff barriers ahead of commitments under SADC and COMESA, and growing consumerism has had a negative impact on the balance of trade which has been exacerbated by the inability of the manufacturing sector to capture new export opportunities.

Further, contraction in the domestic oriented manufacturing activities will have the following adverse impacts:

- Rising unemployment due to low job intensity of trading activities
- Deteriorating balance of trade due to increasing imports to supply the domestic market
- loss of know-how from 'de-industrialization'

As reported by the Association of Mauritian Manufacturers, some 130 enterprises have ceased business from 2006 to date. There is also an indication that a number of SMEs have shifted from manufacturing to trading.

KEY THRUST AREAS

Restoring a level playing field between trade and local manufacturing

- Fiscal measures which take on board our vulnerable SIDS status. These will benefit both the DOE and MSMEs.
- Rationalisation of processes to restore the balance of burden between manufacturing and trade.

Reinforce consumer protection

- Same Quality and Standards must be applied to both imported and locally produced goods
- Enforcement of Regulatory provisions by the different organisations concerned.
- Need for food labeling for consumers' health and safety.
- Regulate claims made by advertising

Consumer awareness and education

- Education and sensitization of consumers on the nutrition – health nexus
- Consumer must be well aware about his rights, responsibilities and services available under consumer protection act.

VISION 2030

Align to SDG 12 to ensure sustainable consumption and production

NATIONAL STRATEGIES

(to be finalized after budget)

SHORT TERM:

MEDIUM TERM:

LONG TERM:

DRAFT CONFIDENTIAL

HEALTH / QUALITY OF LIFE

SITUATION ANALYSIS

Mauritius has a well-developed health system that sets it above the level of health performance of upper middle-income countries. There is universal access to healthcare services in Mauritius through the provision of free healthcare. Health expenditure accounted for 2.4% of GDP in 2014. In the 30 years to 2015, premature morbidity and mortality due to infectious, parasitic and water-borne diseases has been virtually eradicated, and life expectancy increased by 9.5 years to 74.5 years. The incidence of HIV was less than 1% in 2014. Non-Communicable Diseases (NCDs) are the bane of the healthcare system.

Natural morbidity profiles show a greater incidence of chronic and degenerative diseases, the major causes of mortality and morbidity in Mauritius. Lifestyles with poor diet, lack of physical activity, smoking and alcohol strongly correlate with a rise in NCDs; circulatory diseases take the lead (24.6 deaths per 10,000 population), followed by diabetes (endocrine, nutritional and metabolic diseases) (20.1 deaths per 10,000 population), cancer (9.7 deaths per 10,000 population), and diseases of the respiratory system (7.4 deaths per 10,000 population).

The most important socio-economic factor associated with NCDs is the level of education. The lower the level of education, the higher the risk of NCDs and their related factors and vice-versa. A survey carried out in 2010 revealed that those with a monthly household income of less than Rs5,000 had the highest risk of getting diabetes (32%), while those with income of Rs20,000 or more had the lowest risk (16%). Similarly, those with 3 years or less of education had twice the odds of being hypertensive, compared to those with 13 or more years of education.

The ageing population adds to the intense pressure of the NCDs. About 14.2% of the population was 60 and above in 2014, a number projected to grow to 17% in 2018. A quarter of the population will be over 60 in 2030, and life expectancy will increase to 80 years. Consequently, the working population (from ages 15 to 59) is expected to decline from 65.6% to 61.3% in 2029, while the population below 15 will decrease from 20.2% in 2014 to 15.1% in 2029. Following this trend, the older population will constitute a growing segment of society, while the share of the working population will decline, leading to an increased dependency ratio.

Households spend significantly on health care in the private sector through health insurance and out-of-pocket payments for care and treatment. Consequently, private sector spending represents around half of total health sector expenditure. Out-of-pocket health spending is becoming an increasingly heavy burden at the household level. From 2006 to 2012, overall out-of-pocket health spending has increased as a share of household income of the bottom 40%, and has done so at a much higher rate than the population as a whole. The number of households with catastrophic level expenditures (defined as a fifth or more of their income), rose from 45% to 65% for households of the bottom 40%, and from 50% to 60% for households of the top 60%. Furthermore, half the households had no health spending in 2006, but this decreased to 32% in 2012, reflecting the sporadic nature of health expenditures. This also suggests that those in the bottom quintiles could be putting off necessary health spending.

CHALLENGES AND OPPORTUNITIES

Ageing will affect the size and composition of the labour force, demand in general including demand for health care, and will have serious implications for the economic development of Mauritius and the participation of older people in society. In addition, the growing costs of the ageing population will pose serious challenges to fiscal sustainability in the long-term. It will be important to ensure that as people grow older they can continue to contribute to the economy and society and are able to look after themselves for as long as possible. The right policies and framework will have to be provided to ensure an active ageing population who can lead a healthy and creative life.

In addition, the health system is burdened by high rates of NCDs; this, combined with the growing costs of the ageing population will impact on fiscal sustainability. Ill health and malnutrition reduce the physical capacity and mental faculty of workers, thereby causing lower productivity and an economic loss. Notwithstanding their costs, NCDs have an inequity dimension that needs to be addressed as they are associated with lower education levels. Lack of information and globalization of unhealthy lifestyles that may show up in individuals as raised blood pressure, increased blood glucose, elevated blood lipids, and obesity and may lead to NCDs, are issues that will need to be addressed too. People should be given access to the information and services they need to promote and protect their health, and are thus protected against catastrophic health expenditures.

The incidence of catastrophic health expenditures shows that the health situation in Mauritius has deteriorated compared to other upper middle-income countries in Latin America and the Caribbean, like Colombia and Jamaica for example. The economic burden of catastrophic health expenditures is higher on lower income households than on higher income households, and is another source of inequity in access to health care. Catastrophic health expenditures are generally the consequence of the systemic challenges in the health sector, more specifically the governance constraints across the health service-delivery value chain. Climate change which can trigger an increasing number of health emergencies and outbreak of infectious diseases may increase catastrophic health expenditures.

Further, as the country develops and income per capita increases, demand for health care can be expected to increase, putting additional pressure on the health system. While fiscal deficit and public debt have been consolidated, meeting statutory debt targets within the context of a low taxation environment implies public expenditure restraints which would affect public health expenditure. Therefore, efficiency gains, policy changes, additional resources, and improvements in service delivery would be needed.

Health affects, and is in turn affected by, many economic, social, and environmental determinants. This is reflected in many of the non-health goals and strategies in Vision 2030. The principle of sustainable development which guides Vision 2030 limits environmental degradation and climate change, which have the highest relative impacts on the least healthy. Further, in the agro-industry sector for example, the promotion of safe and nutritious food, free from chemicals noxious to health will support a healthier lifestyle.

The rising middle-income class, poverty reduction, and more widespread education by 2030 will result in a population that can be empowered to make choices that are relevant to their health. Higher levels of

education may be linked to healthier lifestyles and a better understanding of health messages. An increase in demand for prevention and early detection of diseases can be expected. Genomic healthcare uses genetic research and technology and provides a means to tailor health care at the individual level. The WHO recognizes genomics as a powerful tool to achieve global health equity. Countries like Brazil, Cuba, India, China and South Africa use genetic technology and services to address the health needs of their population and genomic innovation as a way of stimulating development and generating products and services to address local needs. Genetic research and its utilization are at a nascent stage in Mauritius and will be developed.

The development of Information and Communications Technology (ICT) offers a tremendous potential to enhance communications between healthcare and individuals and communities and thus increase the performance and responsiveness of the health system. ICT will be used to increase emphasis on performance management and accountability by facilitating data collection, management, sharing, and dissemination. Furthermore, the more affordable technological devices such as mobile and wireless device and a more technology-literate population will enable the use of such devices in the delivery of healthcare services.

The framework for Public-Private Partnership will be revamped to attract funding and raise operational efficiency. This is an excellent opportunity to attract private investment in the health sector, not only to strengthen and further develop our health services from basic healthcare screening to quaternary services for our people, but also for medical tourists. The development of a regional medical hub for a whole spectrum of healthcare services could contribute approximately 0.5% to GDP by 2030. This initiative has the potential to create more than 20,000 new jobs, of which a large proportion will be in the medical, nursing, and paramedical professions.

KEY THRUST AREAS

Refocus health expenditure on growing health patterns such as NCDs. The health system is burdened by high rates of non-communicable diseases that, combined with ageing population, will put intense pressure on the system. **Private spending is already very high and the public system will need to realign funding to address emerging diseases, raise efficiency, and ensure adequate complementarity with private spending to ensure that the most vulnerable are adequately cared for.**

Re-examine policies to cope with growing health costs of ageing population. The ageing population will present serious challenges to the sustainability of public health policies. A revision of these policies should be carried out to protect the most vulnerable in the long-term, while encouraging private savings required to sustain economic development.

Improve public health service delivery, raise the efficiency of public investment, and create a level playing field for private sector investment. A modern public sector approach based on continuous evaluation and strengthened accountability will be adopted. Public health services will be aligned towards emerging needs in terms of building human capital and infrastructure.

Evidence-based monitoring and evaluation (M&E) policies will be implemented to raise public sector efficiency. In a context of limited evidence to formulate policies and evaluate them, policy makers cannot assess whether they achieve their objectives or corrections are needed. As a result, wastage remains in the budget, which undermines public sector efficiency and opportunities to fund new priorities. The impact of improving evidence-based M&E policies would likely be long term as it would require substantial and incremental institutional changes that would need time to produce results. Yet, once operational it would ensure more disciplined, sustainable, and focused public expenditure that would better align resources to the needs of the poor and vulnerable.

Develop the use of genomics in the diagnosis and treatment of human diseases. Predictive genetic testing and pre-symptomatic testing will be introduced, as well as pre-natal diagnosis.

Develop Mauritius as a medical centre of excellence providing healthcare services from basic health screening to quaternary level. The strategy is two-fold: build an enduring brand-name based on clinical excellence, and attract a high throughput of foreign patients for economic impact and economies of scale.

VISION 2030

Our vision for 2030 is in line with SDG3 to ensure healthy lives and promote well-being for all at all ages. Absent reforms, the likely increase in the incidence of NCDs and the growing costs of the ageing population might undermine economic development and quality of life considerably.

NATIONAL STRATEGIES

SHORT-TERM

1. Generate and disseminate evidence on the relationship between NCDs and the social determinants of health, and develop a plan to address NCDs
2. Review the food act in the context of locally manufactured and imported foods for their impact on NCDs.
3. Regulate health and nutrition claims use in advertising and on food labels
4. Implement public awareness programmes on diet using mass media and social media, to complement face-to-face interventions of health workers
5. Promote NCD prevention and control with sexual and reproductive health and maternal and child health programmes, especially at the primary health care level
6. Create incentives for behaviours associated with improved health outcomes, improve affordability, and encourage consumption of healthier food products and discourage the consumption of less healthy options
7. Reduce affordability of tobacco products
8. Introduce health and safety standards on rum sold in the local market
9. Introduce a National Systematic Cervical Screening Programme
10. Strengthen primary health care and extend to offer dental care, palliative services, and community psychiatric services

11. Enhance the regulation and control of medical products through the setting up of a National Drug Regulatory Authority
12. Improve the delivery of the health supply chain management
13. Expand expertise in health technologies, including maintenance and repair of these
14. Scale up and decentralize HIV/AIDS Programme
15. Develop a strategic plan to reduce substance abuse
16. Introduce an on-the-spot fine for spitting in public
17. Encourage health insurance schemes

MEDIUM-TERM

1. Enhance post-surgery care to improve patient outcomes and speed-up recovery
2. Educate health professionals to deliver patient-centered care, emphasizing evidence-based practice, quality improvement approaches and informatics
3. Construction of private wings in public hospitals
4. Make available specialist-supervised care on a 24-hour basis in all regional hospitals
5. Develop the framework for public hospital accreditation in the context of the health and wellness tourism industry
6. Increase awareness about personal medicine
7. Amend the DNA Identification Act to allow private companies to carry out DNA analysis in Mauritius
8. Encourage private investment in areas including genomics, radiology, oncology, endocrinology and neurology
9. Introduce the use of mobile and wireless devices for health services
10. Support clinical research

LONG-TERM

1. Introduce performance-based contracting between health insurers and care providers
2. Entrust Municipalities with home care responsibilities
3. Establish a Mauritian healthcare brand

SUSTAINABLE MANAGEMENT OF SOLID WASTE

SITUATION ANALYSIS

Effective solid waste management plays an important role in creating sustainable and low-carbon habitats. Mauritius has a structured solid waste management framework, where Local Government is the mandated for waste collection. Government strategy is to divert waste from landfill through recycling and resource recovery. The strategy focuses on conversion of existing transfer stations into Material Recovery Facilities, and the setting up of thermal treatment plants to recover energy from waste. About 450,000 tonnes of waste is deposited annually at Mare Chicose, the sole disposal site in Mauritius. **The Mare Chicose landfill has a 3MW engine that produces power from the landfill gas.**

Solid waste quantities are increasing by 2% annually, and landfill disposal consumes 3 hectares of land each year. The bulk of municipal waste is organic waste (64%), which is composed of food and garden waste and is the most recyclable, followed by plastics. Plastics and paper make up 12% and 13%, respectively, while textile and glass make up 5% and 3% each. There is an active formal recycling sector which recycles PET bottles, card boxes and paper, glass, scrap iron, used oil, and food waste locally. Cotton discards, electronic and electrical waste, and motor oil are collected and exported for recycling. Cooking oil is recycled into biodiesel by some operators.

CHALLENGES AND OPPORTUNITIES

Mare Chicose is projected to reach saturation by end of 2018. As the economy grows, the middle-income class will grow too, and consumption and waste will increase. Demand for agricultural goods and meat will rise; more agricultural and meat waste in municipal solid waste will create a challenge for waste management. Waste composition will change due to the production and consumption of increasingly complex products. Rapid depreciation of electronic products due to fast update and built-in obsolescence coupled with the increasing interconnectedness of Mauritius, will cause electronic waste to grow beyond manageable bounds.

Revenue from municipal tax collection is insufficient to pay for total waste management costs, and Government has to use other revenues to finance Municipal Solid Waste collection services and the operation of publicly-owned transfer stations and disposal facilities. This raises an issue of fiscal sustainability.

Waste is a resource. Food waste collection will be separated from other waste collection and food waste will be banned from landfills. Food waste can be a feedstock for anaerobic digestion to generate biogas. Other organic waste such as grass clippings, leaves and natural materials will also be banned from landfill. Instead, communities will be encouraged to compost or mulch them, either in backyards or in composting areas that will be set up.

The better educated population might be more ecologically concerned and more open to re-use or recycling. Further, being more IT-literate, they might join online websites and platforms that provide an

opportunity for the sharing of physical assets thus reducing the consumption of those physical assets and consequently, of solid waste.

KEY THRUST AREAS

- Make waste management more environmentally sound, as per the waste hierarchy. Top priority will be given to waste prevention, followed by preparing for re-use, then recycling or recovery, and last of all disposal. A zero-waste-to-landfill policy for plastics, paper, glass, metals, and bio-waste will be adopted. By 2030, Mauritius should recycle at least 70% of municipal waste. The zero-waste-to-landfill policy will require new skills in the Science, Technology, Engineering and Mathematics fields, and also across creative disciplines like design, advertising and digital. Emphasis will be given to these disciplines in education and training. Further, Government will create the appropriate framework for businesses to operate, including intellectual property, disclosure agreements, and competition laws as companies collaborate to co-create.
- Fully validate the waste to Energy route though the CEB RFP using latest technologies which do not directly burn waste but convert them into synthetic gas to generate electricity.
- Encourage businesses, in particular SMEs which give customers the possibility of buying the service rather than the product. This will reduce waste as fewer products would be needed. For example, consumers could buy laundry services instead of washing machines. Government will encourage research in areas where the service rather than the product can be bought and will thus support new businesses in their decision-making, potentially reducing risks associated with using new approaches.
- Put in place a producer responsibility scheme for packaging, as is the case presently for PET bottles. Government will work with industry to explore how Individual Producer Responsibility Schemes can be implemented. The objective is to increase the collection and recycling of packaging materials.
- Stimulate the consumption of environmental-friendly products through Government purchase. Government will include waste prevention and re-use requirements in its buying standards, which will lay a greater emphasis on the recyclability of materials and recycled or re-used content.

VISION 2030

A do nothing scenario will require the setting up of major disposal infrastructures with continuous increase in waste management costs that would be fiscally and environmentally unsustainable. Our vision is aligned to SDG12, Ensure sustainable consumption and production patterns, and our target is substantially reduce waste generation through prevention, reduction, recycling and re-use.

NATIONAL STRATEGIES

SHORT-TERM

1. Encourage SMEs and NGOs that promote repair, re-use and recycling of products. Government will review its tax policy on products based on their environmental impact, or their recycled content. Introduce a dedicated environmental tax at source which is used to support small scale

collection and recycling of hazardous and recyclable waste (such as batteries, fluorescent tubes, glass jars, metal cans, plastics).

2. Encourage research in areas where service rather than product can be bought
3. Provide incentives to SMEs which give customers the possibility to buy the service rather than the product
4. Provide incentives to SMEs which demonstrate profitable, resource-efficient and resilient alternative business models
5. Put in place a producer responsibility scheme for packaging as is currently done for PET bottles
6. Conversion of transfer stations into sorting stations
7. Strengthen measures for occupational health

MIDDLE-TERM

1. Review taxation policy on products that are designed to have a lower environmental impact
2. Provide the regulatory framework for the sharing economy

LONG-TERM

In the long term we should aim at recycling 100 % waste into value without adversely affecting the environment.

CLIMATE CHANGE AND NATURAL DISASTER RISK MANAGEMENT

SITUATION ANALYSIS

The adverse impact of climate change challenges the resilience of livelihoods and ecosystems and increases the incidence of natural disasters. Over the past 20 years, average temperature has risen by 0.74°C, increasing the prevalence of flash floods and droughts. Droughts will increase, considering that rainfall has been decreasing by 8%. Projections suggest that global average temperatures could rise by 1-2°C by 2060, with water resources decreasing by 13% by 2050. Sea-level increases by 3.8mm annually, sea surface temperatures are on the rise, and there is a change in ocean chemistry negatively impacting fisheries, biodiversity, and the tourism industry. The incidence of storms and heavy rainfall is on the rise, exacerbating the country's vulnerability to geophysical hazards; Mauritius is already highly prone to natural disasters (7th highest out of 172 countries) and has a high disaster risk (13th out of 172 countries)⁶.

There is a sound awareness of climate change and natural hazards in Mauritius. In the past, the country has coped well with the financial burden of disasters. Enforcement data and environmental data such as hydro-meteorological and pollution levels, are readily available and are collected on a regular basis. Mauritius has a climate change adaptation strategy and is in the process of preparing a climate change bill. A National Disaster Risk Reduction and Management Centre has been set up to strengthen disaster risk management.

CHALLENGES AND OPPORTUNITIES

A large part of the population and productive assets in Mauritius are exposed to multiple risks, and flooding risk is continuously increasing, especially in built-up areas due to inappropriate drainage infrastructure as well as people living in the coastal areas. As the most disadvantaged Mauritians live in the coastal areas, they are more vulnerable to flood risks. Recent events such as the flash floods of 30 March 2013 in Port-Louis and Cyclone Bansi in January 2015 demonstrate the importance of strengthening the country's resilience in order to ensure progress with poverty reduction and shared prosperity. Flood risk management and law enforcement exist but these are barely keeping pace with the rapid speed of development and changes in land use, both of which are increasing surface run-off and testing drainage capacity.

Further, natural hazards may significantly impact on the economic growth of Mauritius. Agriculture, tourism, and water are likely to be the most affected sectors and other services sectors will be less affected. Regarding agriculture, if rainfall decreases by 10% to 20% and temperatures increase by 2°C, then sugar cane yield could be reduced by an amount between 34% and 48%. Furthermore, growing

⁶ 2015 World Risk Report

temperatures will favour vegetative growth at the expense of sugar accumulation. Increased severe cyclones could further disrupt the economy and stretch government finances.

The tourism sector will be affected by rising sea surface temperatures, and changes in ocean chemistry will negatively impact the health of coral reef systems. These systems, which act as a protective barrier to coastal zones, are essential to the island's fisheries and biodiversity and are a major tourist attraction.

Despite the fact that Mauritius has substantial achievements in implementing adaptation measures, there are limitations in key aspects, such as financial resources and operational capacities. Mauritius could benefit from the implementation of disaster risk management policies and their respective instruments in the areas of risk reduction, preparedness, risk financing, and recovery and reconstruction. Potential risk scenarios seldom take into account climate change projections. Also, **vulnerability and impact assessments are not comprehensive or substantial, and there is no national multi-hazard risk assessment with a common methodology designed to inform planning and development decisions.** While Environmental Impact Assessment (EIA) recommendations are monitored and enforced, there are insufficient officials for post-monitoring the more than 1,000 Preliminary Environmental Reports (PERs) and EIAs issued.

There is trend of growing strength of cyclones known as super storms as was experienced in Fiji islands early in 2016 and more recently with cyclone Fantala completely destroying an atoll in Seychelles with gusts of around 325 Km/hr in both cases. The last cyclone with gusts of 280 Km/hr dates back to 1975 with Gervaise. There is a whole generation who has not experienced cyclones of this strength. During the past 40 years, aluminum openings, solar water heaters and Solar Photo voltaic modules have been introduced in the absence of any standards on cyclonic resistance performance and anchoring on roofs to resist cyclones. Current engineering practice is to design buildings to resist 300 Km/hr. The practice of insurance of vulnerable equipment is also not established in Mauritius which exposes a large number of households and buildings to major damage in case the island is hit by a super storm,

The development of the Green Economy or low-carbon growth in key sectors such as agriculture, manufacturing, tourism, energy, water, transport, and waste is expected to generate better economic outcomes than a business-as-usual investment allocation, with a higher GDP and the creation of at least 5,000 more jobs than in the usual business scenario by 2030⁷. These sectors are of strategic importance because of their contribution to GDP, employment creation, global competitiveness, and environmental impact. They reflect the country's challenges on food, water and energy security, traffic congestion, impacts related to waste management, and the vulnerability and fragility of the tourism sector. The Green Economy will create opportunities for sustained economic growth, energy and water savings, agricultural productivity, and green jobs. Improvements in energy and water efficiency will impact positively on the manufacturing and tourism sectors.

⁷ Green Economy Assessment Mauritius, UNEP 2014

KEY THRUST AREAS

- A. Initiate a project to comprehensively review building materials, construction techniques and Renewable Energy equipment introduced over the last 4 decades to assess the risks for equipment, human lives and 3rd party damage from flying debris during super storms. Introduce standards inspired from Reunion and other cyclone prone regions to be integrated in the Building code for mandatory compliance by future buildings with provisions for remedial upgrade of existing buildings.
- B. Reduce the adverse impacts of projected climate change. The strategy is to address all stages of disaster management, including prevention and protection, preparedness, response and recovery through adaptation measures. Priority actions are in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, and include build resilience, strengthen monitoring and prevention, reduce vulnerability, raise awareness, increase preparedness to respond to and recover from disasters, and “Build Back Better” in recovery, rehabilitation and reconstruction.
- C. Reduce Global Greenhouse Gas (GHG) emissions through mitigation strategies. For this to happen, the day-to-day activities of individual families, firms, communities, and government will need to change substantially. Support the development of the Green Economy or low carbon growth in key sectors such as agriculture, manufacturing, tourism, energy, water, transport, and waste. The Green Economy will be supported by a robust system of effectively enforced regulations and standards including sustainable processing of livestock waste. Substantially by 2030, Mauritius targets to achieve a level of self-sufficiency in strategic crops, supply at least 40% of the country’s energy through renewable sources, and promote green transport to reduce fossil fuel import expenditure. As for the waste sector, emphasis will be on reducing, recycling and resource recovery, and disposal at a landfill as a last resort.

VISION 2030

Our vision is aligned to SDG13 which is to take urgent action to combat climate change and its impacts through adaptation and mitigation measures. Our objective is to abate GHG by 30% relative to the business-as-usual scenario of 7 million metric tonnes CO₂ equivalent by 2030. We also intend to reduce our natural disaster risk by more than half by 2030 (2015 World Risk Report) through the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.

NATIONAL STRATEGIES

SHORT-TERM

- Safeguard areas prone to have a high-risk to flooding, coastal inundation and landslide
- Set up the legal and institutional framework for better risk governance including updated building and material standards and remedial measures to ensure compliance of existing installations.

- Adopt a sound development strategy in respect of spatial planning and management by limiting the development of flood prone areas and encouraging flood risk-sensitive land use and management practices
- Introduce more stringent legislation and enforcement to maintain coastal and inland wetlands and rehabilitate those affected by human activity. Develop spatial data infrastructure to enable risk assessment and monitoring
- Extend the existing early warning system for tsunami and cyclones to include river discharges and high tide, as well as other natural hazards such as drought, and improve communication of alerts to all through media, internet and internet-based social networks
- Improve emergency response
- Improve awareness and strengthen regulatory framework for the protection of beaches, dunes and vegetation, and enhance their rehabilitation
- Adapt new infrastructure to changing climate needs
- Improve the policy and regulatory water framework, and forecasting capacity, management, protection and quality of water resources
- Promote sustainable and smart agricultural practices, such as strengthening the water-food-energy nexus
- Improve the management of marine and terrestrial protected areas and expand protected area networks, including rehabilitation of wetlands, sea-grass, mangrove plantations, increase in tree coverage areas and coral reef rehabilitation/farming
- Build awareness on the health risks of climate change, improve surveillance of diseases associated with climate change, and develop and implement a decentralized alert and rapid response mechanism
- Democratising and decentralizing the use of renewable energy though schemes to make it affordable to the masses providing long term hedging against future energy crisis.
- Sustainable transportation, including the promotion of energy efficient mass transportation systems based on hybrid technologies and cleaner energy sources
- Sustainable consumption and production in all sectors of the economy
- Sustainable and integrated waste management, including sorting at source, sorting at recycling centres and reuse of waste components.
- Sustained tree planting programme
- Leverage funding from the private sector and Development Partners for mitigation projects and adaptation needs

MEDIUM-TERM

- Facilitate post-disaster recovery by strengthening risk insurance facilities at the national and regional levels
- Make existing infrastructure more climate-resilient
- Promote anaerobic digestion of waste for methane capture and production of compost used in soil fertility rehabilitation while achieving long term carbon sequestration.
- Promote sustainable exploitation of Agro forestry for wood to be used in carpentry and furniture to lock carbon for decades.

- Develop and implement sustainable fishing management plans, strengthen institutional capacity and adapt infrastructure to sea-level rise
- Sustainable use of marine resources

LONG-TERM

- Promote a culture of disaster resilience
- Plan and develop large scale artificial reefs as a protection against cyclones, tsunamis and rising sea level.

LOCAL GOVERNMENT

SITUATION ANALYSIS

Mauritius is administratively divided into 5 Municipal Councils, 7 District Councils, and 130 Village Councils, which are locally elected forms of local government covering the whole Republic. With economic development and a high population density, living areas have expanded rapidly. Today, villages have infrastructures that are as good if not better than some towns. However, local planning remains limited; health, education, water and sanitation services amongst others, are not decentralized. Further, Local Government faces substantial financial challenges. It has a limited budget which is generally used to fund the construction of small and medium scale public infrastructure such as bridges, roads, and drainage systems, street lighting and public areas like community parks and sport facilities.

CHALLENGES AND OPPORTUNITIES

The significant financial challenges of Local Government coupled with the requirements of an ageing population and a rising middle-income population with heightened expectations of getting services on demand through a range of technologies, calls for a significant change in the way Councils operate. To play its full role, Local Government will need to be empowered and be given resources and powers to access its own-source revenue.

Local Government has the responsibility to localize the SDGs with the effective participation of the communities, including youth and women. In particular, Local Government has a direct role to play in the implementation of the SDG on inclusive, safe, resilient and sustainable human habitats. It is a catalyst in the implementation of sustainable solid waste management. The citizens of tomorrow can be empowered with the knowledge of their rights and responsibilities and can participate actively in planning, implementing and monitoring local development. They represent an important social capital that Councils can use in the design and delivery of services, especially in the context of managing climate change and the risks of natural disasters.

KEY THRUST AREAS

- Provide more autonomy to Local authorities in the way they operate, so that they are empowered to raise more revenue and manage the resources within their jurisdiction based on an agreed framework with Central Government. A new Local Government Act will be passed bringing forth the decentralization agenda. It will minimize the powers and authority of the Ministry of Local Government over the Councils, thus giving the latter more autonomy to operate. It will devolve budgetary, financial, and fiscal powers to local authorities, and provide means for them to raise revenue on their own without requiring the approval of the Ministry.
- Enable Councils to share their services in the medium-term. Sharing services will reduce duplication of effort and expenditure and will free money from back-office processes to be spent on front-line services, thus delivering better value and customer impact. By 2030, there will be a new Local Landscape with fewer Councils with wider jurisdiction areas, and they will have more autonomy and powers to provide shared services to the community.

- Urban renewal and rural revival. This will happen as the Vision 2030 is implemented, through digital and information technologies, urban planning best practices, the mass transit system which will make the towns the locus of commerce and setting up of packing houses and other projects in the rural areas in the context of developing agro-industry.

VISION 2030

Our vision is in line with SDG11 to make our towns and villages inclusive, safe, resilient and sustainable.

NATIONAL STRATEGIES

SHORT-TERM

1. New Local Government Act
2. Empower municipal and village councils to drive the transformation and value addition to the natural and historical heritage sites as a tourist destination with direct benefit to local communities though tourist spending on quality services.

MEDIUM-TERM

1. Amend the Local Government Act to reduce the existing disparity between Municipal Councils, District Councils, and Village Councils, and provide for:
 - a. The conversion of the 7 District Councils into Municipal Town Councils
 - b. The creation of additional Municipal Town Councils in emerging towns
 - c. The introduction of a uniform revenue collection and taxation system.

LONG-TERM

1. Enact a new Local Government Act to provide the legal framework for the setting up of fewer Local Councils with wider jurisdiction areas

ARTS, CULTURE AND LEISURE

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SITUATION ANALYSIS

Over the decades, the cultural policies of the various Governments have been to maintain a harmonious multicultural society which is necessary to boost the image of the country and promote economic and social development. These policies are reflected through the provision of appropriate support to the various linguistic groups for the organization and celebration of religious festivals.

With limited resources, some action has been taken to ensure preservation of our cultural heritage which was considered to be a threat in the context of increasingly rapid modernization. The result is that Mauritius, a relatively small country, has been able to get two sites, namely the Appravasi Ghat and the Le Morne Cultural Landscape, which are inscribed on the UNESCO World Heritage Sites map. Nomination dossiers for the listing of Sega Typique, Traditional Bhojpuri music and dance, Sega Tambour of Rodrigues and "Sega Chagos" on the UNESCO Intangible Culture Heritage List are underway. However, more funds and resources should be dedicated to exploit our other cultural heritage sites, scattered around the island.

The promotion of the creative economy has been undertaken through the setting up of a number of cultural institutions such as Mauritius Society of Authors, National Arts Gallery, Conservatoire Nationale de Musique Francois Mitterrand, Cultural Centres and four Centre de Formation Artistique. Different assistance schemes and the International Development Grant Scheme have been formulated to enable creative individuals and groups to benefit from facilities for rental of venues, exhibitions, or publishing and also to enable a large number of Mauritian artists to tour the world in international festivals.

Regarding Leisure, there are currently six leisure parks all around the island of which the main ones are the Casela Leisure Park, La Vanille des Couleurs Nature Park and La Vanille Reserve des Mascareignes of Riviere des Anguilles.

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CHALLENGES AND OPPORTUNITIES

Limited opportunities provided to the Artists, Creators and Performers: It is advocated that the Ministry concerned cannot organize additional artistic and cultural events/activities to introduce innovative projects and to arouse the interest of the people due to financial constraints.

Limited Opportunities to preserve and exploit cultural heritage: Mauritius has a number of traditional cultural heritage sites in the state of demolition. Appropriate incentives have not been provided to the local entrepreneurs to develop these cultural sites.

Lack of Capacity Building and training opportunities in Arts, Culture and modern leisure activities for promoting competency: The dynamics of culture requires dedicated and trained persons for the

implementation of artistic and cultural projects. The limited number of staff involved in these projects are not able to provide a quality service to artists, creators and performers.

Lack of Skilled and talented human Resources: The emergence of Information, Communication Technology (ICT) has brought a wave of change in the organization of artistic and cultural activities. Events Managers, Sound and Light Technicians, Scenographers, Light Designers, Choreographers, are among the new requirements for the development of Arts and Culture.

Infrastructural Gap: The existing cultural infrastructure is not consistent with the demand of artists, creators, and performers. Quality cultural events and shows require state of the art infrastructure in terms of Art Gallery, Cinema, Recording Studio, Library, Archives, and National Stadium. The Port Louis and Plaza theatres are closed since a decade. The other theatres are private organizations and their cost of rental is very high.

Inadequate provision of leisure facilities: It is felt that there is an inadequate provision of leisure activities, which is one of the causes for young persons to be driven into the consumption of alcohol and drugs.

In the context of the concept of “Tourist Country Branding” in the tourism sector, there is a need to devise an approach to restore and refurbish the historical monuments/sites in the move to attract more tourists towards our dedicated cultural heritage.

The film development industry is on the rising trend with the promotion of Mauritius as a good destination for the cinematographic industry. The Film Rebate Scheme introduced in 2012 and destination concept of ‘Shooting in Mauritius’ are encouraging an increasing number of producers to film making, presentation of publicity spots and shooting for Television serials.

The Ministry of Arts and Culture operates four training centres scattered around the island, which could be used to promote artistic and cultural activities. However, it is imperative to sensitize the whole population, including the children and the elderly, to take interest in these activities

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KEY THRUST AREAS

- In a multi-cultural country as Mauritius, it is important that all the different cultures are well respected and duly recognized to enhance the concept of preserving unity in diversity.
- Increasing the number of the cultural and heritage sites will be an important component to draw the attention of the nation on our cultural values and to further enhance Mauritius Cultural Tourism Industry. There are a number of these sites that have not yet been fully exploited through refurbishment and promotion.
- Mauritius has a potential in the film industry and its attractiveness should be enhanced through the provision of additional infrastructure in selected key areas.

VISION 2030

By 2030, the Mauritian citizens will live in a high-quality society with a changed mindset, fully conscious of their multi-cultural and multilingual realities; polyvalent in area of creativity and professional in all artistic disciplines. There will be full recognition and enhancement of unity in diversity and respect for conservation of cultural heritage. The society will be transformed into a harmonious one, imbued with cultural values and creativity for sustainable economic development through the promotion of a culture of interest, consciousness and appreciation of arts and cultural heritage in the public.

NATIONAL STRATEGIES

SHORT-TERM

- Improve Recognition of the Artists, Creators and Performers and provide them a better service through amending the following legislation:
 - The Copyright Act 2014 to, inter alia, improve the enforcement procedures against copyright infringement, enhance fight against piracy and regulate tariffs for users of copyright materials.
- Review the National Heritage Act 2003 to give, among others, a new orientation to the country's tangible and intangible heritage for further protection, preservation, and promotion in the context of the Creative Economy.
- Introduce the following new legislations to meet the needs of the arts and culture sectors with a view to keeping pace with development at the international level and promoting the cultural Industry/Economy
 - :The Film Act -in replacement of the MFDC Act to set the base for the development of the local film industry.
 - The Status of Artist Act – to be formulated in the wake of Creative Economy, where it is imperative that artists, creators and performers are given the appropriate recognition and incentives to enable them to continue with the process of creation.
- Make an Inventory of all the historical sites that can be classified under the UN Cultural Heritage Sites:
- Renovate the Belle Mare Waterpark and provide additional modern aquatic leisure activities.

MEDIUM-TERM

- Democratize for more accessibility and build excellence by promoting the participation of the population in various capacities in all forms of Arts and Culture and through the setting-up of physical infrastructure all over the island, especially in smart cities. Also, enhanced support to the small but significant number of artists, performers, writers and playwrights to achieve excellence and to better manage the various cultural domains and make arts and culture more accessible.
- Promote Capacity Building and Cultural Diplomacy to enhance competency through:
 - Consolidation of friendly ties with countries of origin

- Exchange of artists, creators and performers
- Sharing of experiences and skills
- International Exposure and
- Promotion of Creative Industry
- Promote employment of skilled and talented human resources through filling of vacancies relating to the posts of, among others, Events Managers, Sound & Light Technicians, Scenographers, Light Designers, Choreographers, at the Ministry of Arts and Culture. The international exposure, highlighted above, will assist in the transfer and creation of talents among the Mauritians.
- Promote the Cultural Infrastructure through
 - Renovating the Plaza and Port Louis theatres to become operational by 2020.
 - Creation of a National Arts Emporium
 - Setting-up of a National Centre for Performing Arts.
 - Creation of a Culture Museum to retrace the entire Mauritian culture
- Personnel should be trained to undertake management of the cultural infrastructure.

LONG-TERM

- The number of Cultural and Historical Heritage Sites will be increased through the upgrading of infrastructure and urban revival of Port Louis and Mahébourg. Port Louis could be transformed into an Artistic and Cultural Capital and Mahébourg into a historical port city.
- While maintaining and enhancing traditional cultures, promote the inter-cultural linkages among the various communities.

ROADS AND INLAND TRANSPORT

SITUATION ANALYSIS

As Mauritius moves into a new phase of development driven by innovation and productivity to attain the status of “High-Income Economy”, the development of infrastructure becomes a key determinant for success. A modern, well-designed and efficient infrastructure system unlocks economic opportunities, builds competitiveness and raises productivity, which leads to rising levels of employment and incomes, higher standards of living of citizens, reduction of income disparities, and higher tax revenues.

In turn, changes in the business environment, in urbanization, in climatic conditions, in technology, and improvements in the quality of life create expectations for better and more complex physical infrastructure. Today, infrastructure is regarded as the vehicle for bringing the transformational change that low-income and middle-income aim at. Accessibility to, and the quality of infrastructure, also determines a country’s position on the global stage, and underlines the country’s attractiveness to foreign investors.

The growing physical infrastructure needs - high cost of works, limited budgets, lack of implementation capacity, resilience to climatic change and natural disasters while remaining eco-friendly – remains a continuous challenge.

As at end-2014, the road network stood at 2,356 kilometers. It comprises “motorways” (90kms), “main roads”, “secondary roads” and “other roads”, of which more than 98% are paved roads. Between 2010 and 2014, some 276 km of roads were added to the network. Speed cameras have been installed in **51⁸** accident prone areas.

The relative good density of the road network, coupled with rising standard of living, has given rise to an exponential increase in the number of vehicles. As at December 2015, 486,144 vehicles were registered. Compared to 2004, this figure represents a 66% increase over 2004 as shown in the Table below.

Type of Vehicle	2004		2015	
	Number	%	Number	%
Cars, Double Cabs, Dual Purpose vehicles	119,029	41	241,573	50
Auto / Motor Vehicles	129,500	44	193,688	40
Vans, Lorries, Trucks, Buses, & Other Vehicles	43,076	15	50,883	10
Total	291,605	100	486,144	100

As of December 2015, the number of vehicles per km of road was about 200.

Source : National Transport Authority

⁸ As at Friday 18 March 016, 1Week-End 20 March 16

CHALLENGES AND OPPORTUNITIES

During peak hours, roads are choked causing enormous congestion at the entry and exit points of the capital, as well as in the main towns and villages due to the large influx of vehicles and dearth of (paid / free) parking space in business and commercial developments. The cost of traffic congestion to the economy was estimated at Rs 3 billion in 2003⁹. This figure was revised to Rs 4 billion for 2008¹⁰.

Due to poor “**land use management strategy**”, roads have been built to serve developing areas as and when the need arose without taking into account the long-term requirements. Several major roads are in a poor state due to lack of planning and maintenance works, severe climatic conditions, and (unplanned) usage by larger and heavier vehicles. In the same vein, a timid effort has been done in terms of demand side management, e.g. car users in the Curepipe - Port Louis conurbation have not been encouraged to avail of facilities like “Park and Ride” as the system was not properly organized and security of assets not guaranteed.

The rise in the number of vehicles, coupled with the lack of discipline of drivers, pedestrians and other road users, has led to an increase in the number of road accidents. The number of road accidents registered during the first semester of 2015 was 13,800, made up of -

- (i) Non-Injury 12,400 (90%),
- (ii) Slight Injuries 1,100,
- (iii) Serious Injuries 200, and
- (iv) Fatal 66.

The majority of persons who died in road accidents were riders of Auto / Motor vehicles (41%) and pedestrians (30%). Another aggravating factor is the continuous rise in the number of fatal “**Hit and Run**” cases. The cost of accidents to the economy was estimated at **Rs 6 billion in 2015**.

Another local phenomenon is the increasing number of “**Marchands Ambulant**” who have invaded major roads and pedestrian pavements in all the towns and villages thereby depriving vehicles of parking areas, and pedestrians of a passageway. This has also been a major cause of congestion and accidents. Fortunately, some drastic actions have lately been taken to attend to this issue.

The public transport is widespread with around 3,000 buses (June 2015) plying along more than 300 routes. Buses are operated by four (4) major companies and a large number of individuals organized in co-operatives. Around two-third of buses are owned by private individuals. Bus fares are regulated by Government, and are free for students, old age pensioners and the handicapped. However, the lack of

⁹ G. Menon et al, Report on Congestion Pricing, 2004

¹⁰ Dorsamy and Puchooa, Journal of the Institution of Engineers Mauritius, 2013

supervision has led to an abuse of the system of “refunds” to bus companies. The poor conditions of buses (old buses, built on “lorry” chassis, uncomfortable, not properly cleaned), reckless driving (accidents), irregular service (routes, time table, punctuality), lack of courtesy of operators, poor safety in the buses (theft, assault), poor / inadequate maintenance (frequent breakdowns, accidents), and insufficient controls by the authorities for obtention of “road worth certificates” (fitness) has moved away the travelling public to other modes of (private) transportation. There has been a mild attempt to introduce “air conditioned” and “semi-low floor” buses, but the reaction of bus operators has not been to expectation mainly due to the higher fuel consumption of about 40% which is not fully compensated by higher fares.

This chaotic state has also created a problem for the environment – carbon emissions from poorly maintained vehicles, quality of fuel, noise pollution – and constitutes a potential health hazard.

KEY THRUST AREAS

The “key thrust areas” for the road infrastructure and inland transport system are -

- (i) public-private sector partnership in provision of road and inland transport infrastructure,
- (ii) implementation of a new transport management scheme, and
- (iii) introduction of an efficient, economical and environmentally friendly “mass transit system”.

VISION FOR 2030

The future of road and transport infrastructure in Mauritius is seen as critical to delivering inclusive growth and creating jobs for the wider benefit of the nation. The World Bank estimates that a 10% increase in infrastructure development contributes to 1% growth in the long-term, and that every US\$ 1 billion invested in infrastructure generates an average of 110,000 jobs in oil importing countries¹¹.

The Vision for 2030 is the establishment of a technology-driven efficient road and transport network that reduces congestion and the risk of accidents, that is accessible to all citizens (user-friendly), that is affordable, and that is eco-friendly.

¹¹ World Bank, Infrastructure Strategy Update FY 2012-2015

NATIONAL STRATEGIES

In formulating proposals for the road and transport infrastructure, the following assumptions have been made -

- (i) the country will reach full-employment by the end of the decade, although it may have recourse to high-caliber expatriates in emerging sectors,
- (ii) the work force is imbued with a new work culture driven by creativity, productivity, discipline and innovation, and
- (iii) as a result of improved security, and the operationalisation of an efficient mass transit system, working hours will be reviewed and Mauritians will work from 08:30 to 17:30 hrs. Essential services would operate on a shift system on a 24/7 basis. Extended hours of work will meet the requirements of the international customers.

SHORT-TERM

PUBLIC-PRIVATE SECTOR PARTNERSHIP :While the public sector remains central to the delivery of infrastructure services, either as a provider or enabler, private participation in infrastructure development is desirable provided there is certainty and visibility in policy making. The enactment of the appropriate legislations will give a boost to activities in the road and transport sector.

ROADS-TRANSPORT-LAND MANAGEMENT NEXUS :Develop a “Land Use Management Strategy” to guide road construction and transport planning, and build consensus around the “Roads-Transport-Land Management Nexus” as urbanization calls for integrated infrastructure solutions in roads, transport, energy/water supply, and disaster risk management.

TRANSPORT MANAGEMENT SYSTEM :Implement a new technology-driven, centrally-controlled transport management scheme (through smart sensors placed in strategic locations) that controls traffic flows and parking systems around the main conurbations, that informs the driving public (mobile apps) of the situation on the roads on a 24/7 basis, and that acts as a deterrent for reckless behavior on the roads.

In addition, as a means to remove cars from roads during peak hours -

- (i) the concept of “Park and Ride” should be introduced in an organized manner, and

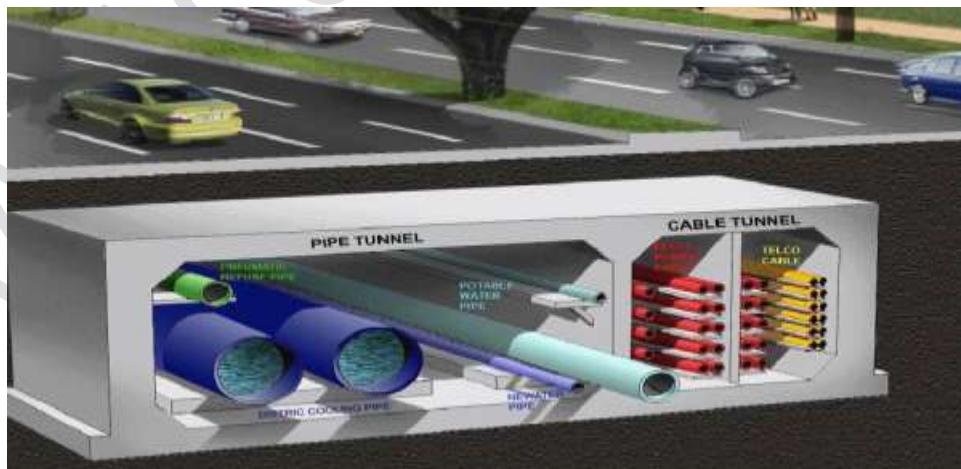
- (ii) car users sensitized to take more passengers through car pooling

PROVISION OF STATISTICS : To assist policy makers, statistics should be made regularly available on the economic and social costs of road infrastructure and transport systems, e.g. -

- (i) cost of road accidents, road congestion, commuting time and productivity loss,
- (ii) costs and benefits of “Active Transportation”, e.g. walking, cycling, etc., and
- (iii) social cost – impact of road traffic on health (quantified health risks, health / medical costs, burden of illness and disease caused by road traffic, loss of quality of life, damage to property, etc.).

ROAD INFRASTRUCTURE : The proposals for road infrastructure are as follows -

- (i) better road designs, and new planning guidelines, to take on board safety of motorcyclists and pedestrians (including pedestrian pathways and cycling lanes given their benefic impact on health), as well as changes in climatic conditions (e.g. drains). Review design of roundabouts,
- (ii) future road construction programmes should take on board the advent of the “mass transit system”,
- (iii) all new developments (Heritage City, Highlands Development, Smart Cities, Technoparks) should be connected by road and/or mass transit networks and have “**common services tunnel**” to ensure uninterrupted supply of essential services during all types of climatic conditions (cyclones, floods, tsunamis, earthquake, etc.). New Planning Guidelines to be issued,



- (iv) sensitization programmes for drivers and pedestrians to adopt responsible and positive behavioral attitudes,

- (v) the legal arsenal should be updated, enforcement tightened, and offences severely punished, especially for habitual defaulters,
- (vi) tighten enforcement to discourage encroachment of pavements by shopkeepers to showcase their products. Pavements should be restored to move pedestrians away from roads, and
- (vii) capacity building at the responsible Ministry(ies) level such that staff members are conversant with new design and planning norms, soil testing techniques, as well as in supervision of works.

TRANSPORT SYSTEM : The primary focus in formulating proposals for the transport system remain the implementation of a new transport management scheme that seeks to remove a (large) number of private vehicles (cars and two-wheelers) from the roads, and prompt the travelling public to migrate to an efficient, economical and environmentally friendly “mass transit system”. The proposals for the transport system are as follows -

- (i) public transport should be modernized with “Semi-Low-Floor” type buses (easy access for elderly and handicapped),
 - equipped with Smart Card Readers, CCTV cameras (for safety) and Wifi. “Smartcards” will provide a seamless travel from all modes of the public transport system (bus, mass transit, taxi),
 - buses are one-man operated, and are driven by fuel cells / electric batteries to protect the environment, and to contain air / noise pollution,
 - delays in public transport, if any, are less than five minutes, and
 - extend fiscal incentives to bus operators to modernize buses,
- (ii) fares are affordable - reduce subsidy on transport, distribute “Travel Vouchers” to the “targeted” needy, and
- (iii) promote concept of “**Active Transportation**” - reduce number of bus stops, bus stops to be provided with bus time tables and route schedules, and encourage passengers to walk (has health benefits and will reduce congestion).

TAXI SERVICE : The proposals for taxi services are as follows -

- (i) enforcement of “Metering Services”,
- (ii) computerize taxi services so that commuters can book taxis more easily, e.g. from their mobiles (e.g. UBER),
- (iii) to better serve tourists, train taxi drivers in courtesy, languages (minimum of two), and history of Mauritius at the time they obtain a “Taxi Drivers” licence, and
- (iv) taxi drivers are updated on current cultural events around the island on the computerized system installed in their vehicles.

MEDIUM-TERM

ROAD INFRASTRUCTURE : The proposals for the medium-term are as follows -

- (i) upgrade all A1 and B1 roads, bridges and fly-overs to international norms, and put in place a routine maintenance programme, including better road and traffic signage, use of green technologies in road construction (e.g. asphalt recycling, solar powered lights), and maintenance works undertaken at night to avoid traffic inconveniences, and
- (ii) road safety improved and road accidents reduced by 50% through extensive road safety campaigns.

TRANSPORT SYSTEM : The proposals for the medium-term are as follows -

- (i) introduce an eco-friendly “**Mass Transit System**” between Mahebourg and Grand Bay. Phase I will be between Curepipe and Port Louis. The new system –
 - will run between 04:00 to 22:00 hours, and the trip between Curepipe and Port Louis will take 30 minutes in clean air-conditioned coaches,
 - the main stations will have electronic passenger information system on routes, travel time and arrivals of train. During peak hours the waiting time at stations will be five (5) minutes,
 - regenerative technology will enable energy to be fed back to the grid when braking and going downhill. This will enhance the sustainability of this electric mass transit system,
 - coaches will be air conditioned, and equipped with Smart Card readers, CCTV cameras and Wifi,
 - a “**circular service**” will connect the major poles of development (e.g. Reduit, Moka, Heritage City conurbation) to a main station (e.g. Rose Hill), and
 - the system will be supported by a “Shuttle / Feeder Bus Service” that calls at the main stations, and connects every village / work areas round the clock at 10 minutes interval. Routes are well planned,



- (ii) support for the “Mass Transit System” –
- the main stations are “**Multi-Purpose Complexes**” that will operate till 21:00 hours and house all services required by citizens (mini markets, beauty parlours, food courts, CEB/CWA/Telephone counters, laundry services, doctor, pharmacy, Police post, cobbler services, etc.),
 - in the food court, food prices and quality will be controlled as well hygienic conditions enforced, and
 - rental of stalls in the “Multi-Purpose Complex” will be controlled to avoid exorbitant rents being charged by promoters.

LONG-TERM

TRANSPORT SYSTEM : In the long-term, 80% of the travelling public use the mass transport system (which has been extended southward to Mahebourg, northward to Grand Bay and eastward to Flacq), Mauritians work longer hours and gains has been registered in productivity in all sectors of the economy, and technology driven cars and energy efficient regenerative electric buses ply on the roads.

PRIVATE VEHICLES : The proposals for private services are as follows -

- (i) a “Vehicle Quota System” has been introduced to limit the number of cars / two-wheelers on the roads,
- (ii) an “Electronic Pricing System” has been introduced for vehicles entering major towns during peak hours,
- (iii) car pooling is a reality and has reduced the number of cars on the roads,
- (iv) vehicle norms for Co² emissions has been enforced,
- (v) “smart parking” technologies (on mobile applications) is a reality, and
- (vi) road tax has been increased to cross-subsidise the mass transit system.

PORt AND SHIPPING DEVELOPMENT

SITUATION ANALYSIS

Port Louis Harbour, which is the sole maritime gateway of the country, handles about 99% of the total volume of external trade, and contributes to over 2% to GDP. In terms of international shipment score, Mauritius was ranked 115th (among 160 countries) in the World Bank's "**Logistics Performance Index**" (LPI) for 2014. The Index uses six dimensions to benchmark performance, namely -

- (i) Efficiency of the clearance process (i.e. speed, simplicity and predictability of formalities) by border control agencies, including customs,
- (ii) Quality of trade and transport related infrastructure (e.g. ports, railroads, roads, information technology),
- (iii) Ease of arranging competitively priced shipments,
- (iv) Competence and quality of logistics services (e.g., transport operators, customs brokers),
- (v) Ability to track and trace consignments, and
- (vi) Timeliness of shipments in reaching destination within the scheduled or expected delivery time.

In 2014, "Total Trade Volume" handled in the port was 6.9 million tonnes, compared to 6.7 million tonnes in 2013. Total Container Traffic registered a growth of 4.6% rising from 385,326 TEUs in 2013 to 403,001 TEUs in 2014. **The number of container moves per hour was 20.**

In 2014, 3,329 containerized and fishing vessels, and 18 cruise vessels, called at Port Louis harbor at the 16 berths in operation. Singapore is a reference in the region. With its 57 berths, in 2014 Singapore Ports handled 581 million tonnes of cargo, 134,883 vessel calls, 34 million TEUs and 42 million tonnes of bunker.

The Mauritius Ports Authority (MPA) is the sole national port authority that regulates and controls port activities, provides the main infrastructures together with related facilities. The Cargo Handling Corporation Ltd (CHCL) functions within the framework of a Concession Contract with the Mauritius Ports Authority, and is the sole operator for handling all cargo transiting through Port Louis.

As a comparison for the South African region in **2014** –

- (i) the port of Durban handled a total of 3,963 sea-going ships, 81.188 million tonnes of cargo (including oil, petroleum products and containers). Container volumes (2,698 million TEUs) totalled 36,425,335 tonnes and represented 58 percent of the total number of containers handled at South African ports. **The number of container moves per hour was 45,**

- (ii) for the port of Mombasa, total throughput cargo recorded was 24.875 million tonnes, and 1,012,002 TEUs of container traffic. **The number of container moves per hour was 40**, and
- (iii) for the port of Reunion, total throughput cargo recorded was ...million tonnes, and ... TEUs of container traffic. **The number of container moves per hour was 25**.

CHALLENGES AND OPPORTUNITIES

INFRASTRUCTURE

There is a low frequency of important shipping lines / mega carriers and feeder vessels calling at Port Louis due to lack of space to accommodate more containers / cargo, low volume of regional traffic, and the low dredge level (sea level) at the quay. Connectivity by sea remains a major issue in the region because the critical mass remains low. Given its strategic location, Mauritius needs to embark on major infrastructural projects with a view of attracting additional traffic, and retain its competitive edge in the Indian Ocean vis-a-vis other ports, e.g. Reunion Island, Madagascar, and Durban.

Storage Capacity - with the growing number of ships calling at Mauritius, the storage capacity for containers, general cargo and heavy fuels (for bunkering) has to be increased. Significant investments are needed to develop the “cargo logistics” business in the port. However, with the development of a Cargo Hub, companies will be attracted to deal with low-volume / high-value goods such as luxury and jewelry products, perishable goods, electronics and watches, branded products, among others.

HIGH DEVELOPMENT AND LOGISTIC COSTS

Given the topography of the sea around the harbour, projects are technically complex and development costs are high. Similarly, logistics / services costs (compared to Singapore) are on the higher side in Mauritius adding to higher costs for shipping lines. In case freight costs remain high, trade from Asia to Africa via Mauritius will discourage shippers in the longer-run. New opportunities to logistics service providers in response to the rapidly changing market trends and consumer behavior could be explored.

SPEED OF PORT OPERATIONS AND CARGO HANDLING CAPACITY

Compared to other ports in the region (e.g. Durban), Port Louis is less efficient in terms of speed of port operations and cargo handling capacity. With over 82 million tonnes of cargo in 2014, Durban is among the busiest ports in Africa (during 2014, Port Louis handled 6.9 million tonnes of cargo).

SECURITY AND THREAT OF PIRACY

The threat of piracy in the Indian Ocean region is a major concern for shipping companies, and affects maritime insurance business in the region. Fight against smuggling and illegal trade (thefts within the port precincts) needs to be addressed to give assurance to shipping companies, else this may adversely impact on the reputation of Port Louis Harbour as a “safe and reliable port”.

Maritime automatic identification system could be installed on board ships to identify and locate vessels electronically through satellites. Maritime security operations and services should be implemented to

combat piracy, hijacking, sea based terrorism and other illegal activities. Given its location, Mauritius could house the “regional tracking station” for this part of the Indian Ocean.

KEY THRUST AREAS

The key thrust areas are as follows -

- (i) given its strategic location, Port Louis has the potential to develop as a “hub” for cargo, container transshipment, seafood, bunkering, and as a stop-over for cruise tourism. The bunker market is presently around one million tonnes per annum and will grow exponentially,
- (ii) cruise tourism is a promising sector as major shipping lines have indicated their willingness to make Port Louis their “port d’attache”,
- (iii) Government has engaged discussions with Dubai Ports World to develop and invest in port infrastructure, expand and operate cargo handling capacity, and develop a Special Economic Zone (SEZ) at the ex-JinFei site, and
- (iv) in line with Government’s strategy to encourage the development of a stronger manufacturing sector, access to the regional market is vital. As the manufacturing sector grows, more emphasis will be laid upon our ports to handle much higher cargo traffic. This will enable the development of other ancillary services relating to the logistic services.

VISION FOR 2030

The Vision for 2030 is to transform Mauritius into a vibrant and innovative global city with modern infrastructure, high skills and state-of-the-art-technology, global connectivity, improved quality of life, ecological balance and social inclusiveness, hence transforming Port Louis Harbor into a major transport logistics and maritime hub connecting Europe, Africa and Asia.

NATIONAL STRATEGIES

SHORT TERM

CRUISE TOURISM

The Mauritius Tourism Promotion Agency (MTPA) should adopt an aggressive marketing strategy to promote Port Louis and the region as a cruise destination. As there is only one cruise berth, additional berth facilities, and an inter-island passenger vessel, will have to be provided for. It is projected that cruise passengers will increase to 50,000 by 2020, and 100,000 by 2030.

LOGISTIC SERVICES

In line with Government's strategy to encourage the development of a stronger manufacturing sector focusing on high-tech and high value-added activities, coupled with preferential access to regional markets, is right time for Mauritius to put in place the necessary conditions to enable the country to move towards creating a new model underpinned by technology, innovation and entrepreneurship.

Access to the regional market is a key determinant, and as the manufacturing sector grows, more pressure will be laid on the ports to handle a higher volume of cargo traffic. This will enable the development of other ancillary services relating to logistic services.

GATEWAY NETWORK

Strategies should be developed to enhance the connectivity and inter-connectivity of Port-Louis with a view to securing additional transshipment traffic. This will help in creating a "**Global Gateway Network**" to Africa. Agreements, MoUs and / or concerted policy actions should be taken and implemented with shipping companies to use the gateway.

POR TS USERS COMMUNITY

The port should be customer-centric, i.e. be at the service of business partners. For example, investment in automated gates, additional customer and user friendly EDI interfacing would be a top priority to ease entry and exit for goods, minimize paperwork, reduce processing times and connect everybody via a single window to gain on efficiency.

MEDIUM TERM

BUNKERING AND PETROLEUM HUB

Strategic decision is needed to develop Port Louis into a "bunkering and petroleum hub". Such a development could be a significant accelerator for the economy as it will boost direct and indirect services such as ship agents, ship chandlers, crew transfers, and transit hotels. Under this scenario, the bunker and export of petroleum products will increase to 2.57 MT by 2025 and 5.47 MT by 2040. A New Terminal will have to be constructed in 2025 to cater for the traffic in 2030.

FISHING INDUSTRY

The fishing industry has a vital role as a provider of inputs for the canning industry. Fish traffic can increase to a high of 250,000 MT by 2040. In this respect, additional fish landing quays and equipment should be provided for.

REGIONAL DISTRIBUTION CENTRE

Mauritius has the dynamism to position itself as one of the most active freeport zone in the region. With the objective of making Mauritius a regional distribution center, facilities around the port could be

upgraded to attract large international companies with prestigious brands to use Port Louis as a “storage centre” or “assembly point” to penetrate the African market.

The Jin Fei Free zone is being developed to host activities relating to assembly of a large number of goods for export on the African market. Moreover, handling of recycling and waste-management activities could be included as a freeport activity. Logistics service providers could offer effective reverse logistics - e.g. recycling and waste-management services, repairs of electronic goods, etc.

CAPACITY BUILDING & TRAINING HUB

Hard infrastructure alone will not be sufficient in developing Port-Louis into a leading port in the region unless accompanied by the necessary soft skills. Continuous training / capacity building for all operators, as well as a change in work culture and attitude, becomes a necessity. It is also proposed to set up a **“Regional Training Academy”** (CHCL) specialized in Port and Sea Operations to train / re-train existing personnel, and prepare the youth to acquire the necessary skills and capabilities to work in the port and shipping industry.

LONG TERM INFRASTRUCTURE

With improvements in quality of services, and world-class infrastructure, the marine industry is set for a brighter future. In addition, there should be strict control at the port to prevent illegal trafficking and to build up a solid reputation as a “safe and reliable port”. Advanced cargo container scanning machines should be installed to further enhance the security of cargo / containers.

Since land around the port is scarce, land reclamation would be an option to optimise and redevelop the port area. Another area to be investigated is **“floating quays”** that can be anchored off the port area to service vessels with higher drafts (i.e. above 18 meters) or **“island quays”** just beyond the existing quays to accommodate additional traffic.



CONTAINER TRANSSHIPMENT

Port Louis is presently the second deepest port in the African region. It is projected that total port traffic (cargo) will reach some 15 million tonnes by 2030 and exceed 20 million tonnes by 2040. Container transshipment will increase to 900,000 TEUs by 2030 and 1.38 million TEUs by 2040. Accordingly the total traffic (transshipment and captive) at Port Louis will increase to over 1.3 million TEUs by 2030. Accordingly, berths should be designed/ enlarged to accommodate the latest generation of ship.

A Joint Logistics platform with Port Reunion would be explored to attract larger ships which currently are not attracted with the low volumes at Reunion and Port Louis individually. There is also an opportunity to exploit the re-export of empty backhaul containers to Europe, with containers from Reunion transiting in Port Louis to be shipped together with other products such as sugar, garments and processed agro foods.

Another area to be explored include the conveyance of cargo and containers by Mauritian vessels from the “Singapore Hub” or major Chinese ports to Mauritius given that China has become the “manufacturing base” for African countries. The business opportunity consists in cross-docking small volumes of cargo in Mauritius for shipment to ports in the Africa region by Mauritian vessels. This strategy will support the initiatives for the “Regional Distribution Centre” and development of the “Regional Shipping”.

MAHEBOURG AS A SECOND PORT

In the long run, thoughts should be given to develop Mahebourg as port for activities relating to oil and gas exploration and exploitation. In case it is developed as a terminal for jet fuel with pipelines connected to SSR International Airport, it would reduce road transportation cost of jet fuel from Port Louis to Plaisance, and congestion along the M1.

REGIONAL SHIPPING

In the long-run, Mauritius could lead the regional shipping initiative, and operate a corridor between Asia and Africa. The Mauritius Shipping Corporation (MSC) could operate two passenger-cum-cargo ships on the regional routes, and as much as five pure cargo ships on international routes, mainly between major ports in Africa and Asia.

LOGISTICS HUB

In the coming years, Mauritius will be developed as a “**logistics hub**” for the region with dedicated Free Trade Zones designed to serve the needs of particular industries such as chemicals, pharmaceuticals or vault facilities. Other key elements need to be considered such as increase in cross-border trade and capital flows at the regional level; emergence of new trade corridors to facilitate transportation on the Asia - Africa route; development of port related value-added activities; fully integrated system to enable goods in transit; more environmentally friendly transportation with alternative vehicle and propulsion technologies; use of robotics for loading and unloading of containers, and full fledged 4PL (fourth party logistics) in place providing a broader scope of management in the entire supply chain.

AUTONOMOUS MARINE SURVEILLANCE SYSTEM

Mauritius is established as the (satellite) maritime communications hub for the Indian Ocean. The marine surveillance system draws on the latest technology to provide a reliable, round-the-clock monitoring solution. A line of buoys located offshore ensures comprehensive coverage of territorial waters where each buoy is equipped with the latest visual and acoustic sensors. When a suspicious vessel is detected, images can be transmitted directly to a control centre on shore. This provides authorities with unprecedented observation capabilities and enables them to take swift appropriate action.

AIRPORT INFRASTRUCTURE

SITUATION ANALYSIS

The Republic of Mauritius has one international airport (Sir Seewoosagur Ramgoolam (SSR) International Airport) on the mainland, one airport (Sir Gaëtan Duval Airport) in Rodrigues, and a landing strip on the island of Agalega.

MAURITIUS

The new passenger terminal at the SSR International Airport became operational in September 2013. The terminal covers an area of 57,000 m², is equipped with modern facilities aimed at improving efficiency and ground service - five boarding gates with aerobridges (including one compatible with the large Airbus A380), check-in desks for departing passengers, immigration counters, baggage carousels, and free parking facilities for about 600 vehicles. It can accommodate up to 1,620 passengers per hour, and has a capacity of 4 million passengers a year. Currently twenty scheduled airlines serve more than 35 destinations through the SSR International Airport. The airport is set to become a regional hub in the Indian Ocean with direct flights to several destinations in Africa, Asia, Australia and Europe. The International Airport is currently used at 40/50% of its capacity.

The SSR International Airport also has facilities for handling of private planes / business jets (separate tarmac parking and lounge).

Airports of Mauritius Co. Ltd (AML) - a public company with Government of Mauritius as major shareholder - is the owner and operator of the SSR International Airport. Airport Terminal Operations Ltd (ATOL) - a subsidiary of Airports of Mauritius Ltd - is responsible for the design, building and operation of the new terminal building, and is the result of a strategic partnership between Airports of Mauritius Ltd and Aéroports de Paris Management (ADPM).

The Mauritius Duty Free Paradise Ltd (MDFP) – a subsidiary of Airports of Mauritius Ltd – operates the activities of duty-free shops at the SSR International Airport, and offers a range of luxury items, including top brand perfumes, cosmetics, watches, jewellery, liquor, as well as a variety of locally made products.

The SSR International Airport also has a “Cargo Zone”. The development of a new Cargo and Freeport Zone is being undertaken in a phased manner.

Statistics on aircraft movement, passenger traffic and cargo handled at the SSR International Airport are as follows

	2009	2010	2011	2012	2013	2014	2015
Total Aircraft Movements (Scheduled, Private, Cargo, Military, Supplementary Schedule, Medical Evacuation)			20,083	20,935	19,240	19,492	
Total Passengers Movements (million) (Arrival and Departures)	2.381	2.588	2.666	2.690	2.783	2.916	
Total Air Cargo Handled tons			37,485				53,586

RODRIGUES

The first flight to Rodrigues was made in September 1972. The Sir Gaëtan Duval Airport is operated by a public company - the Airport of Rodrigues Ltd (ARL). In addition to Air Mauritius plying on the Mauritius-Rodrigues route, Air Austral has started a direct service from Reunion Island to Rodrigues.

AGALEGA

The aerodrome was constructed in 1986 on North Island. It consists of a 1,300 metres long airstrip, a small taxiway, an aircraft parking area, and a small terminal building. The landing strip, originally made of compacted coral and sand, was resurfaced with bitumen in 1999. The aerodrome is not equipped for night landing, and only light aircraft can utilize the facilities for flights of a noncommercial nature.

AIR MAURITIUS

Air Mauritius Limited (operating as Air Mauritius) is the flag carrier airline of Mauritius. The company is 51% owned by Air Mauritius Holdings Ltd., which is in turn is owned in its majority (43.83%) by the Government of Mauritius. The company, which is listed on the Stock Exchange of Mauritius, operates a fleet of twelve (12) aircrafts of different sizes, has some 3,000 employees, has "code-sharing agreements" with several airlines flying out of Mauritius, and flies to more than 24 destinations to Africa, Asia, Australia and Europe. In July 2014, Air Mauritius signed a memorandum of understanding with Airbus for four Airbus A350-900s, with the option to place additional orders for up to three more aircrafts.

The "Travel and Tourism Competitiveness Index 2015" ranked Mauritius 56th out of 141 countries (Seychelles in 54th position, and South Africa in 48th position) – improving from its 58th position in 2013 (Seychelles in 38th position, and South Africa in 64th position), but sliding from its 53rd position in 2011.

The “**Skytrax World Airport Awards**” – voted by airline customers around the world - are the most prestigious recognition for the airport industry, and constitute a global benchmark of airport excellence. The awards for **2016** are as follows –

World's Best Airport	Best Airports in Africa	Best Airports under 5 million passengers
<p>Singapore Changi Airport</p> <ul style="list-style-type: none"> • Changi Airport was the World’s Best Airport in 2013, 2014, 2015 and 2016 	<ol style="list-style-type: none"> 1. Cape Town 2. Johannesburg 3. Durban King Shaka 4. Mauritius 5. East London 6. Port Elizabeth 7. Cairo 8. Bloemfontein 9. Seychelles 10. Marrakech 	<ol style="list-style-type: none"> 1. Durban 2. London City 3. Halifax Stanfield 4. Guayaquil 5. Keflavik 6. Billund 7. Malta 8. Luxembourg 9. Kazan 10. Mauritius

CHALLENGES AND OPPORTUNITIES

The development of airport infrastructure is intricately linked to a well-defined air access policy, and the growth of key sectors of the economy – tourism, medical hub, financial services, and trade with the African continent.

The challenges faced by the different economic sectors (the most important being tourism, exports by air cargo, and the airline industry) impact on the development of airport infrastructure. These challenges include -

(i) Tourism Sector

- declining price competitiveness - the result of increasing hotel and fuel prices and high air ticket prices, taxes and airport charges,
- competition from other sea resorts (Seychelles, Maldives, Sri Lanka) both on account of air tickets and hotel rates,
- restrictive air access policy and insufficient airline seats to satisfy demand during peak periods
- over the years tourism spending per head has been decreasing – average of Rs 45,966 in 2012 and Rs 42,638, in 2014 (the “all-inclusive package” phenomenon),
- setback of the image of Mauritius as a “safe destination” (cases of theft, rape, death, murder),

(ii) Air Cargo

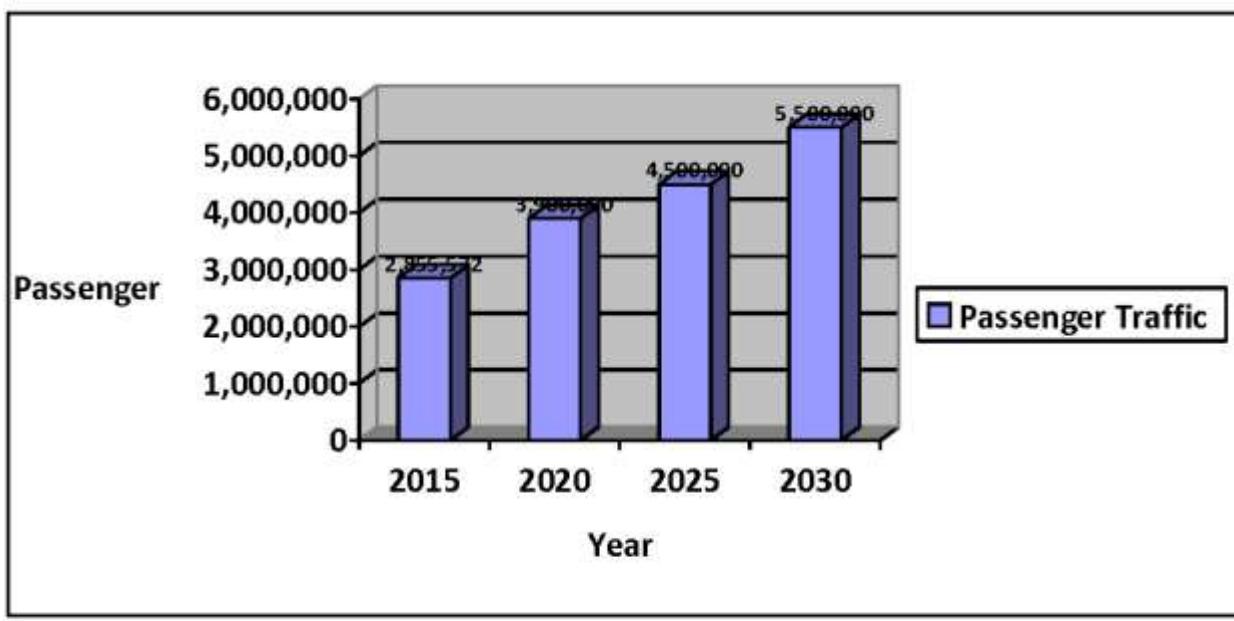
- manufactured and agricultural products are not readily competitive - low volumes for exports, high cost of production, high freight costs,

(iii) Air Mauritius

- operational impediments, high cost of tickets, profitability

Government has signed more than 50 Bilateral Air Services Agreement (BASA) / Memorandum of Understanding (MOU) that provide for the designation of airlines, the route schedule, frequencies of flights to be operated on agreed routes, capacity entitlements, traffic rights, etc. The objective is to position Mauritius as a strong regional travel hub with many spokes that sucks traffic from other markets to the centre then redistributes it. The recent opening of the Mauritius-Singapore Air Corridor and direct links with Maputo (Mozambique) and Dar es-Salaam (Tanzania) are in support of the "Mauritius Hub" initiative. Swaziland has expressed interest in the air corridor project.

Against this background, it forecasted that the total passenger traffic at the SSR International Airport will be around 3.9million in year 2020, 4.5 million by year 2025, and 5.5 million by year 2030.



Source: Ministry of Tourism and External Communications

To capture the full benefits of the Bilateral Air Services Agreements / Memorandum of Understanding, action should be initiated to upgrade / expand existing facilities at the International Airport to cater for the additional aircraft and passenger traffic, especially the transit passenger traffic, without losing sight of the environmental aspects in line with the UN's Sustainable Development Goals.

The Vision for 2030 is for Mauritius to also become a "**Cargo Hub**". As the manufacturing and agricultural sectors grow, the enhanced air connectivity coupled with market access to COMESA and SADC countries, will place Mauritius in a comfortable position to handle larger volumes of cargo. It is

estimated that the volume will reach 58,000 tons in 2020, 80,000 tons in 2025, and 90,000 tons in 2030.

The potential of job creation in the airport sector is non-negligible.

KEY THRUST AREAS

The key thrust areas for the airport sector are -

- (i) Develop facilities and services to handle larger number of aircraft and passengers,
- (ii) Develop infrastructure and services at the cargo and freeport terminal for handling of dry and refrigerated cargo, and ensure a safe, reliable and efficient air cargo supply chain, and
- (iii) Upgrade safety and security procedures for protection of airport infrastructure, passengers and cargo.

VISION 2030

The vision of Government is to take advantage of its geographic location to transform the SSR International Airport as a major “Regional Logistics and Aviation Hub” for the regional islands as well as between Europe, Africa, Asia and Australia.

NATIONAL STRATEGIES

SHORT-TERM

Policy and Legal Reforms

As regards Policy / Legal reforms, the following actions will be undertaken to boost seat and cargo capacity

- - (i) an “open air access policy” will be pursued
 - dormant BASAs / MOUs will be reactivated, where appropriate existing BASAs / MOUs will be renegotiated,
 - airline ticket taxes and airport charges will be reviewed to make the Mauritius destination more competitive,
 - the opening of skies to low-cost carriers will be pursued alongside the review of the business model of the national flag carrier,
 - (ii) promotion of air cargo activities
 - Government support / Scheme for infrastructure development by private sector,
 - G to G approach to encourage private sector to get involved in the sector,
 - aggressive marketing to promote Mauritius as a competitive cargo destination,
 - (iii) promotion of trade and investment in Africa

- need to increase air connectivity to the eastern and western part of Africa, Asia and the Indian Ocean region to support the development of freeport activities in the airport area, this will also boost air cargo transshipment activities,

Infrastructure Development - Mauritius

Two major components of air transport infrastructure are airport terminals and air navigation services.

Airports of Mauritius Co. Ltd (AML) is implementing a modernization programme of the International Airport. These include -

- (i) Additional Aircraft Parking Stands - construction of an additional parking stand, and modifications to an existing parking, to accommodate several Airbus A380 / Boeing Dreamliner type aircrafts simultaneously,
- (ii) Air Cargo / Free Port Zone - Phase 1 was completed in September 2014 and is operational. The subsequent phases include cargo terminals and Freeport and Logistics Centres to aid air transhipment activities, and a "Light Industrial Zone" with modern factories for processing of goods destined for re-export,
- (iii) Development of a "Logistics Park" with modern facilities to support freeport activities, e.g. -
 - manufacturing and assembly of high end technological products,
 - multiuse facilities for warehousing, processing, cold rooms for perishable goods, flexi desk offices and display areas,
 - precious stones and jewellery, pharmaceutical products,
 - strong room facilities for storage of high value goods,
- (iv) Security – each country has their own security requirements. Since airports are passenger-focused, security technology enables the smooth flow of passengers without adding to the stressful experience of “physical checks” at various places. Biometric screening, walkable security lanes, multi-phase pre-screening technology can aid in moving passengers quickly without compromising on security.

STREAMLINED SECURITY

- Focus needs to be on the passenger
- Industry needs to develop a security model that is recognizable and familiar regardless of the airport
- Process should be consistent across all airports to avoid confusion – for example removing shoes and belts, laptops in or out of bags
- Security zones to incorporate good interior design principles to create passenger-friendly ambience instead of a sterile ‘prison-like’ feel
- Streamlined and walk-through without unpacking or undressing



- (v) New Shopping Experience - creation of intelligent, location-based services, including way-providing to move people through the airport to maximize spending and minimize delays (e.g. Dubai), encourage "High Street" shops to move into the terminal, offer loyalty discounts and information on merchandise suited to the passenger's destination and flight purpose (business, recreation, tourism, etc.), special attention to passenger demographics (e.g. Japanese, Chinese, Indians, Arabs, Europeans),
- (vi) Smart Retail, Hospitality, and Entertainment Services –services can be provided to the passenger's mobile phone based on customer information gathered by the airport,
- (vii) New Air Control Tower – a new 70 metres high air control tower will be built to provide a better view of aircraft manoeuvring areas, cater for future expansion of aeronautical activities, and ensure safer aircraft operations,
- (viii) Health – phyto-sanitary / passenger screening facilities will be reinforced to prevent the spread of diseases like SARS, Ebola, Zika, bird flu, etc.,
- (ix) Upgrading of Facilities and Services - resting areas, recreation zone with TV/Free Internet Station, left luggage facilities, greenery to improve ambience, indicative signs in different languages, additional food and beverage outlets, new duty-free experience for arriving/ departing and transit/transfer passengers.

Infrastructure Development - Rodrigues

With the advent of Air Austral on the Reunion Island-Rodrigues route, and the promotion of the island as a "local" destination, the number of visitors is expected to rise substantially. The ambition is to reach 200,000 tourists by 2020.

The runway at Plaine Corail airport will be extended to allow the landing of larger aircrafts, the airport terminal will be extended and refurbished, and services upgraded to accommodate a larger number of passengers.

Infrastructure Development - Agalega

Following the signing of a Memorandum of Understanding with the Government of India for the improvement of Sea and Air Transportation Facilities at Agalega, the latter is extending technical and financial assistance for the rehabilitation and repaving of the runway.

Other Actions / Measures

- (i) the national flag carrier should practice a more competitive air ticket pricing policy and resume flights on major European tourist destinations to attract more tourists, as well as pursue the development of the dual-destination / Ile Vanille concept,
- (ii) aggressive marketing / promotion campaigns to tap new markets and within each country a particular market segment, and develop new products to attract tourists (heritage, cultural and historical),

- (iii) improve the country's ranking in the "Travel and Tourism Competitiveness Index", and
- (iv) make the duty-free shops a unique shopping experience for passengers, including those on transit,

MEDIUM-TERM

Infrastructure Development Mauritius Infrastructure projects will include -

- (i) Refurbishment of Old Terminal Building – the airside departure hall of the old terminal building will be refurbished to provide additional airside capacity in terms of aircraft parking (to accommodate new large aircraft such the Airbus A380 or Boeing Dreamliner), passenger amenities and facilities (restaurants, duty free shopping, sleeping areas, lounges, etc), and will be integrated with the new passenger terminal,
- (ii) Extension of the "parallel taxiway" to provide more capacity to the runway (number of arrival and departure flights per hour),
- (iii) Extension of the private planes / business jets area, and construction of landside helipads and ancillary facilities to improve helicopter operations, and
 - Air Cargo / Freeport Zone – investment in and technological upgrades, e.g."E-Freight" and "Single Window" readiness (streamlining of cargo processes) that have the potential to boost cargo traffic as they confer reliability, increased speed, lower costs and more security,
 - air-to-air transit facility on the airfield, airside facility for airlines to transfer freight from aircraft to aircraft,
 - heightened security control process using the latest technology,

Technology

Investments will be made in advanced technology using smart / integrated solutions that would create new benefits along the entire value chain - increase efficiency in airlines / airport operations, and passenger services to enhance their journey experience. These may include -

- (i) real-time information about travel status – weather, traffic, flight details, flight delays, gate changes, special shopping offers, and
- (ii) seamless processes for check-in, transit, and boarding, and personalized services – this will require disciplined and courteous personnel, and an understanding of passengers' needs (in terms of demographics, behaviors, attitudes).

Capacity Building – Aviation Training Academy

Preliminary procedures have been completed towards setting up an Aviation Training Academy under the aegis of the International Civil Aviation Organisation (ICAO). The academy will make high standard aviation training courses more accessible to personnel in Mauritius and in the region.

Aircraft Repair Facilities

The aircraft repair facilities at the SSR International Airport will be upgraded to enable Category A /B/C /D repairs to be effected. The national flag carrier and regional airlines are potential clients for this service.

The potential of high-end job creation in this sector of activity is non-negligible.

LONG-TERM

Infrastructure Development - Mauritius

- The Passenger Terminal will be extended and upgraded to provide a handling capacity of 6 million passengers annually.
- Redesigning of Airport Infrastructure (design of runways and taxiways, safety issues, environmental issues, among others) for landing of new large aircrafts.
- Given the increase in passenger / cargo traffic, a new runway will be constructed to allow the safe handling of airplanes.

Utilities: Water, Sanitation and Energy

Water

SITUATION ANALYSIS

Around the world cities, farmers, industries, hydropower energy producers, and terrestrial ecosystems are increasingly competing for water. According to *Global Trends 2030*, water demand is projected to increase by 40% by 2030.

On average, Mauritius receives an annual volume of 3,700 Mm³ of rain water, of which 60% (2,220 Mm³) flows as surface run-off into rivers, 10% (370 Mm³) accounts for groundwater recharge, and 30% (1,110 Mm³) is lost through evaporation. Only 22% of the total rainfall (814 Mm³) is currently mobilised. The average individual consumption of potable water is 170 litres per day, and it is projected to reach 175 litres per day by 2025, and 180 litres per day by 2050 (*Master Plan for Development of the Water Resources NIRAS, 2012*). Compared internationally, water is relatively cheap in Mauritius.

By 2030, it is estimated that an additional volume of about 244 Mm³ of water would be mobilized to reach 1,040 Mm³ through river abstractions, construction of new dams, enlargement of existing dams, drilling of new boreholes and re-use of treated wastewater for irrigation. It is assumed that sales of potable water will increase by 50% by 2020, double by 2025 and rise by 150% by 2030.

The targets set over the time horizon 2020, 2025 and 2030 are summarized hereunder:

	2020	2025	2030
Mobilisation of additional water (Mm ³ /year)	120	-	244
Sale of potable water (Volume, Mm ³)	147	196	294
Non-revenue water	40%	25%	10%

Source: Ministry of Energy & Public Utilities

CHALLENGES AND OPPORTUNITIES

- (i) Climate change is altering the assumptions about water resources, in terms of the hydrologic cycle, the amount, timing, form, and intensity of precipitation. Other expected changes

- include the flow of water in watersheds, as well as the quality of aquatic and marine environments. These impacts are likely to affect the programs designed to protect water quality, public health, and safety.
- (ii) **Non-Revenue Water** accounts for 50% of the potable water produced which is lost in the distribution network. The losses are attributed to leakages owing to poor/defective infrastructure network, to errors in data collection and to theft thus, ensuing losses in revenue from sales of water.
 - (iii) The **water supply** for domestic purposes is on average 3 to 5 hours per day, which is far from the objective of a 24 hour/7 day basis. The increase in population, additional irrigation requirements, growing industrial, commercial and touristic activities, development of Smart Cities, water set aside for hydropower generation and changes in land use practices will put increasing stress on water resources in the future.
 - (iv) **Water contamination** due to increasing use of chemicals in agriculture and industry is threatening the quality of water putting at risk the public health.

The water strategy will emphasise on the optimization of the existing technologies and systems and on what needs to be done differently (techniques, habits, management, etc.) in order to avoid wastages. Proper leakage detection, monitoring and maintenance mechanism will increase water efficiency and subsequently reduce the non-revenue water from 50% to 10% by 2030. The Utility Regulatory Authority (URA) will regulate the water sector to improve its financial viability through proper pricing mechanism.

KEY THRUST AREAS

The key thrust areas for the sector are as follows -

- (i) improve the water sector efficiency through the implementation of legal, institutional and water pricing reform;
- (ii) enforcement of, and compliance with, the environmental laws and standards to guarantee the quality of water;
- (iii) improvement of the water infrastructure to improve the non-revenue water and ensure security of water supply; and
- (iv) implementation of integrated water resources management through innovation.

VISION 2030

The Vision 2030 will build the resilience of the water supply in the face of the climate change and increased demand, in line with the UN's **Sustainable Development Goal** to "Ensure availability and sustainable management of water and sanitation for all" (Goal 6). While targeting a 24-hour daily

service, the result will focus on guaranteeing public health and enhancing the socio-economic development.

NATIONAL STRATEGIES

SHORT TERM

Institutional and Legislative Reform

The water sector will be operated within a modern legal framework following the introduction of new water legislation by 2016/2017. The legislation relating to rivers and canals and other water sources will also be updated. Vision 2030 will establish a modern and integrated water system that will effectively mobilise, manage, monitor and distribute all sources of water and the sectoral allocations thereof (agriculture, industry, urban).

Operation and Maintenance

An appropriate maintenance framework will be developed to enable wastage minimisation and improve service delivery. The planning and technical capacity of the maintenance service will be modernised.

MEDIUM TERM

Water Quality

The quality of raw water (e.g. reservoirs) will be improved by eliminating dumping, minimizing release of hazardous chemicals and untreated wastewater. The “**Water Quality Monitoring System**” will be strengthened through appropriate monitoring networks, better equipped laboratories, effective databases and indicators, enlistment of qualified personnel, enforcement of the effluent discharge permit to protect ground water, and upgrading of treatment plants. The water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes will be protected.

Water Pricing and Efficiency

Water-use efficiency will be improved across all economic activities to address the issue of water scarcity. The Utility Regulatory Authority will be responsible for the rationalization of water pricing (potable and raw water) and ensure efficiency gains as well as the financial viability of the sector. The interest of vulnerable groups will be safeguarded through appropriate schemes.

LONG TERM

Water Supply Infrastructure Development

By 2030, the water supply infrastructure development programme will encompass replacement of some 1,600 kms of old pipes, replacement of all consumer meters with “Smart Meters”, increasing the treatment capacity, construction of around 18 new service reservoirs, and upgrading of all pumping stations. Rainwater harvesting, desalination, extraction of atmospheric water, recycling and re-use of wastewater would harness alternative water resources. Sensitisation of local communities will be carried out to improve water management.

Innovation

By 2030, Mauritius will be implementing an **integrated water resources management** system to sustain water availability through the introduction of “**Internet of Things**” connected devices.

Sanitation

SITUATION ANALYSIS

Access to sanitation bestows benefits at many levels - be it in terms of improving public health and livelihoods, or protection of the environment. The majority of the population makes use of the on-site sanitation systems such as septic tanks and pits. With the implementation of the sewerage infrastructure, on-site sanitation systems are gradually being replaced by piped sewerage networks. It is estimated that the population connected to the sewerage network will increase from 26% in 2015 to 50% by 2030.

The targets set over the time horizon 2020, 2025 and 2030 are summarized hereunder:

	2020	2025	2030
Population connection to the sewerage infrastructure	26% (83,000 households)	30% (124,000 households)	50% (169,000 households)

Source: Ministry of Energy & Public Utilities

CHALLENGES AND OPPORTUNITIES

- (i) The wastewater sector is heavily subsidized by Government to ensure **investment sustainability** and **affordability** to customers.
- (ii) **Treated wastewater** of around 50 Mm³ annually at high cost is released into the aquifer and the sea although the policy is to re-use the treated wastewater in irrigation and industries.

It is projected that the annual volume of treated wastewater would increase from 50 Mm³ in 2015 to 80 Mm³ by 2033. The wastewater collected will be recycled and utilised optimally for irrigation and industrial purposes. The re-use of the treated wastewater would meet 20% of the irrigation requirements, thus releasing an equivalent volume of potable water into the network for domestic uses.

KEY THRUST AREAS

The key thrust areas for the sector are as follows -

- (i) improvement of the wastewater infrastructure and increasing coverage round the island; and
- (ii) regulating the wastewater pricing by the Utility Regulatory Authority (URA).

VISION 2030

The Vision 2030 will aim at providing proper sanitation facilities and prevent environmental degradation of the coastal zones, lagoons and ground water resources through the extension of the wastewater network over the period 2016-2030 and connecting 50% of the population.

NATIONAL STRATEGIES

SHORT TERM

RE- USE OF TREATED WASTEWATER

The high volume of treated wastewater will be put back into use for irrigation as well as industrial purposes. This will reduce the pressure on the usage of potable water. At the same time, by reducing the volume of untreated wastewater discharge to the sea there will be a positive impact on the ecosystem along the coastal zones and in the lagoons.

MEDIUM TERM

OPERATION AND MAINTENANCE

A maintenance framework will be formulated to enable wastage reduction, cost minimisation and improvement in the service delivery. The planning and technical capacity of the maintenance service will be upgraded and modernised.

LONG TERM

EXPANSION AND MODERNIZATION OF THE WASTEWATER INFRASTRUCTURE

By 2030, the sewerage network will be extended to other densely populated areas like Vacoas, Rivière du Rempart, Grand Baie Phase III (Petit Raffray, Vale, Sottise) and Port Mathurin, Rodrigues. The number of houses that will be connected to the sewerage network will thus increase from 83,000 to 169,000. Major wastewater treatment plants will be modernized to handle high level (tertiary) treatment of the wastewater. Treatment plants will be fitted with photovoltaic systems for production of energy for on-site use.

Energy

SITUATION ANALYSIS

Energy represents a fundamental input for modern economies and social life. It is projected that globally by 2030, demand for energy would increase by 50% as a result of the upturn in the global population, and the expanding consumption patterns of the middle-income class. (*Global Trends 2030, National Intelligence Council 2012*).

Over 85% of Mauritius primary energy requirement and the electricity generation is derived from imported fossil fuels (Statistics Mauritius, 2015). The remaining 15% of the energy supply is met from renewable sources of which the highest contributors are bagasse and hydro. The amount of energy generated from solar, wind, waste and biofuel is marginal (5%) though the potential to further exploit these resources exists. The two main energy-consuming sectors are transport and manufacturing.

According to the World Bank's "**Doing Business Report**" (June 2015), Mauritius ranks 41st among 189 countries on the ease of access to electricity, while Singapore is at the 6th position. Electricity generation has been on constant increase, rising from 2,937 GWh in 2014 to .2996 GWh in 2015. Similarly, electricity sales increased from 2,452 GWh in 2014. to 2505 GWh in 2015. The peak demand for electricity has increased by more than 50% since 2000 to reach 446 MW in 2014, and 460 MW in 2015. The demand for electricity has been, and will continue, to grow as a result of structural changes in the domestic economy – movement away from sugar towards manufacturing and SMEs, tourism, commercial activities, ICT and smart cities, financial services and ocean economy.

Mauritius ranks second globally among countries for share of 2012 GDP invested in new renewable power, according to the 2014 edition of the "**Renewables Global Status Report for the 21st Century**" (REN21).

Energy generation from renewable sources will more than double by 2030, increasing from the current 90 GWh to 210 GWh, thus reducing dependence on fossil fuel. This will be made possible by further diversifying the production of electricity from renewable sources like bagasse, hydro, wind, solar, marine and biomass.

The energy targets set over the time horizon of 2020, 2025 and 2030 are summarized hereunder -

	2020	2025	2030
Share of Renewable Energy	28%	35%	40% (35% according to MEPU)
Energy Efficiency Gains	6%	10%	15%

Source: Long Term Energy Strategy

CHALLENGES AND OPPORTUNITIES

- (i) **Dependence on Imported Fuel:** The imported sources of (fossil) energy costs more than 20% in terms of the total import bill. The dependence on imported fuel makes the island highly vulnerable to disruptions in the supply and price of its main energy source and to energy security.
- (ii) **Environmental Sustainability:** The energy supply sector is one of the top contributors to the emission of greenhouse gases (GHG) into the atmosphere. As a small island state, Mauritius will be particularly vulnerable to the effects of climate change. Other air pollutants caused by combustion of fuel lead to health problems such as respiratory diseases and cause damage to physical infrastructure.
- (iii) **Inefficient use of energy:** Mauritius' use of energy is inefficient as shown by the energy intensity (a measure of the energy efficiency of the economy) which is around 0.72 (2014). The main contributing factors include inefficient energy technologies in manufacturing and other productive sectors; inefficient energy use in the public sector; low public awareness of the importance of energy conservation; and an inadequate policy framework to promote energy conservation and efficiency.
- (iv) **Cost of Energy:** The cheapest source of energy is coal but it need not be the most appropriate solution in the future given the environmental and health hazards it generates and the “lock-in effect” it may have on future developments in the renewable energy sector. On the other hand, the sustainability of electricity generation from renewable sources like solar and wind is challenging, notwithstanding the cost of backup and storage facilities.
- (v) **Energy Demand:** It is foreseen that over the next decade, national energy requirement will grow at more than 3% annually given the foreseeable developments in the transport, port

and airport sector; expansion and deepening of activities in the manufacturing / industrial / SME sector; and development of the Ocean Economy / Sea Food / ICT / BPO sector. It is foreseen that demand could reach as high as 4,000 GWh by 2030.

Reducing emissions from electricity generation and use through renewables and increased energy efficiency is a central part of the **climate change mitigation challenge**.

Commercially exploitable reserves discovered within the Maritime Exclusive Economic Zone could prove to be a “**game changer**” in the economic model of the country through substantial state revenues and the emergence of ancillary activities such as refineries, and petroleum-based industries.

Algal biofuels hold promising prospects. According to the Marine Board of the European Science Foundation (2010) a theoretical production volume of 20,000 – 80,000 litres of oil per hectare per year can be achieved from micro algal culture. A cost-benefit analysis would shed light on the use of algal for energy production or for alternative uses (e.g. pharmaceutical, cosmetics).

KEY THRUST AREAS

The key thrust areas for the sector are as follows -

- (i) Carry out a comprehensive study to evaluate LNG as a long term low carbon alternative fuel for electricity and transport.
- (ii) upgrading the grid network to accommodate a higher percentage of renewable energy and replace ageing grid network;
- (iii) investment in storage capacity to cater for intermittence of renewable energy;
- (iv) Set up solar PV schemes targeting consumers paying below marginal cost tariffs (Low / middle income households and manufacturing MSMEs) to enable CEB to offset its long term subsidy commitments.
- (v) elaboration of reasonable pricing policies; and
- (vi) development of a clear and competitive energy policy and focussing on access to overseas industrial process experts and R&D.

VISION 2030

The Vision 2030 will create a modern, competitive, efficient, diversified, affordable, accessible and environmentally sustainable energy sector. This is compatible with the UN’s “**Sustainable Development Goals**” – Ensure access to affordable, reliable, sustainable and modern energy for all (Goal 7).

NATIONAL STRATEGIES

SHORT TERM

ENERGY SUPPLY, EFFICIENCY AND SECURITY

By 2030, the electricity generating capacity will increase from both the conventional sources, with a gradual shift towards the use of LNG and the renewable sources as shown in the table below.

Conventional electricity			Renewable Energy and Smart Grid		
Projects	Capacity (MW)	Energy (GWh)	Projects	Capacity (MW)	Energy (GWh)
Saint Louis (Oil-LNG convertible)- June 2017	60	450	SSDG PV-2016	5	-
Gas turbines(Oil-LNG convertible)- 2017	80	200	Aerowatt wind farm-2016	9.35	14
CCGT Combined Cycle Gas Turbine (LNG Convertible) -2020	120	1000	5x2 MW PV Farm-2016	10	16
Other projects-2023	120	s.t feasibility	Plaine Sophie Wind Farm-2017	29.4	52
			New 3x15 MW PV farm-2018	45	75
			1-9 MW PV plants-2018	20	32
			Waste to Energy-2019	30	240
			Alteo new bagasse-2020/21	90	120
			Smart grid-2016-2018	-	-
			Battery 2018	5	-

Source: Ministry of Energy and Public Utilities

In the context of renewable energy, new technologies to store energy produced from sun / wind during daytime (for use at night time) will be adopted. The aim is to ensure that the traditional energy back-up to sustain demand during adverse climatic conditions (when solar and wind turbines are off) are maintained. The production of solar and wind energy by small and medium producers will be further encouraged through the provision of appropriate financial support. It is expected that the number of small and medium scale producers connected to the grid will increase from 5,000 in 2020 to 40,000 in 2030.

The country will optimize on the current systems to save energy in buildings, street lightings, equipment and transportation. Government, businesses and people at large will be actively involved in cultivating a new eco-friendly mind-set. By 2020, some 80,000 customers will be provided with "Smart Meters" and this will be extended to all customers by 2030. The objective of the smart grid system, including

improvement in energy efficiency, will be to reduce the transmission and distribution (T&D) losses from 10% to 5%.

LEGAL, FINANCIAL AND INSTITUTIONAL REFORMS

By 2020, the “**Utility Regulatory Authority**” (URA) will be operational and regulating the electricity tariff, while ensuring increasing private participation in the sector. The URA will ensure that electricity tariffs are reasonably priced and the cost-recovery principles apply for different types of users (agricultural, commercial and residential).

The Electricity Act, the CEB Act and the related legislations will be reviewed and updated to provide a more appropriate legal framework for the development of the sector. Reform of the power sector market will be initiated to include the opening of certain segments of the market for renewable energy to the private sector and allowing for direct sales.

Moreover, the “**Mauritius Renewable Energy Agency**” (MARENA) will be operational to explore green financing and incentive schemes. International financing mechanism will be accessed by developing partnership with multinationals and foreign countries.

MEDIUM TERM

RESEARCH AND DEVELOPMENT

The demand for alternative energy sources would channel resources into Research and Development in areas like:

- waste to energy production,
- **geothermal**, offshore wind and offshore waves / offshore tides potentials,
- new sources of biofuels (from algae, from specially engineered quick growing biomass sources that have high energy yields), and
- marine renewable energy.

LONG TERM

Mauritius will own state-of-the-art infrastructure such as “Common Services Tunnel” (to accommodate water, electricity and telecom services) that will ensure uninterrupted supply during all types of climatic conditions (cyclones, floods, tsunamis, earthquake, etc).

HOUSING DEVELOPMENT, THE CONSTRUCTION INDUSTRY AND LAND USE PLANNING

SITUATION ANALYSIS

Housing constitutes an important segment of national infrastructure, and is pivotal to social development and economic growth. The provision of adequate housing for all segments of the population remains a challenge.

The “**2011 Housing and Population Census**” sheds light on the evolution of the housing sector over the last decade -

Republic of Mauritius	2000	2011
Housing Units <i>of which,</i>	297,700	356,900
• <i>Principal Residence</i>	93.5%	90.5%
• <i>Secondary Residence</i>	1.3%	1.7%
• <i>Vacant</i>	5.2%	7.8%
Number of Private Households	297,900	341,000
Average Household size	3.92	3.56
Types of Construction Materials <i>of which,</i>		
• <i>Concrete Walls & Roofs</i>	86.3%	92.0%
• <i>Concrete Walls & Iron/Tin Roofs</i>	3.9%	2.7%
• <i>Iron / Tin Walls & Roofs</i>	8.1%	4.5%

Source:Statistics Mauritius

The objective of the successive Governments has been to ensure that all citizens have a decent house – “**Un Toit Pour Tous**”. The Mauritius Housing Corporation (MHC) was incorporated as a public company in 1989 to address housing finance with special attention to the low-to middle-income households. The National Housing Development Company (NHDC) was incorporated in 1991 to provide housing facilities to the vulnerable and low-income groups.

CHALLENGES AND OPPORTUNITIES

PHYSICAL AND URBAN PLANNING

There is no coherent approach in physical planning both at the national and local government level. Significant changes in land use planning and development are taking place in the country which impacts on availability of land. The increase in population, expansion of economic activities, and needs for green spaces will impact on demand for additional lands. Built areas have a direct implication on the environment, e.g. flooding, noise pollution, waste management, etc.. Greater adherence should be given

to existing norms as provided in the planning guidelines with a view to stop haphazard development and incompatible uses whilst preserving greenfield sites and environmental sensitive areas (e.g. wetlands).

In the past, two national physical development plans have been published – the Mission d’Aménagement du Territoire de l’Île Maurice (MATIM), 1977, and the “National Development Strategy”, 2005. These have been followed by “**Outline Schemes**” for various regions.

BUILDING GUIDELINES

The building guidelines and regulations in Mauritius are not harmonized. There is no control / enforcement over quality of buildings and materials used, and safety aspects are not inbuilt. There is need for more supervision to abide with guidelines, and a sanction mechanism provided accordingly.

There is a critical and urgent requirement to establish standards and enforcement mechanisms to improve the preparedness of building resilience to super storms particularly in relation to new types of openings, solar Hot water systems and Solar PV modules.

The Energy Efficiency Building Code (EEBC) must be enacted to ensure all new constructions are energy efficient.

LACK OF SKILLED LABOUR

There is a lack of skilled labour in the **construction industry**. The absence of a national programme for skills improvement in the industry has resulted in the enlistment of foreign workers. This factor has contributed to an increase in unemployment. Capacity building and training in the field of land surveying, planning and hydrography should be provided through technical assistance from recognized international institutions.

HOUSING FINANCE

The Mauritius Housing Corporation and the National Housing Development Company cater for the needs of low- to middle-income households. Other institutions providing housing loans are banks and insurance companies at a relatively higher interest rate. All housing loans are secured by mortgages.

KEY THRUST AREAS

The key thrust areas are as follows -

- (i) the object in the housing sector is to provide suitable development opportunities for both local and international investors to achieve significant socio-economic development that will secure higher standards of living for Mauritians whilst maintaining and enhancing the quality of the environment,
- (ii) Mauritius will be an elder-friendly / handicapped-friendly location where families will be encouraged to shelter older / handicapped persons within the extended family circle. There will

be a comprehensive range of housing options to meet the needs of seniors / handicapped, complemented by support care services, and

- (iii) as regards social housing, the objective is to construct 10,000 housing units fully equipped with all amenities by 2020.

VISION FOR 2030

The vision for 2030 is to explore new and innovative ideas to make Mauritius a “**Smart Island**” while ensuring access to adequate, safe and affordable housing which are fitted with basic services. By 2030, all families will be owners of their residential units. All housing estates will have leisure facilities and greeneries to create an attractive living environment

NATIONAL STRATEGIES

The proposals made hereunder are in line with the UN’s “**Sustainable Development Goals**” (Goal 11) which reads as follows “*make cities and human settlements inclusive, safe, resilient and sustainable*”.

A. LAND USE PLANNING

SHORT TERM

LAND USE MANAGEMENT STRATEGY

An ecologically-friendly “**National Development Strategy**” (*a National Development Plan*) supported by detailed “**Urban Development Plans**”, will be developed to ensure sustainable / optimized use and management of land resources. Smart and green-energy buildings, incorporating new technologies, will be the norms to maximize on use of renewable resources. Old buildings of historic interest will be restored and maintained to preserve the cultural heritage, and to promote tourism activities.

MEDIUM TERM

NATIONAL PLANNING COMMISSION

A “National Planning Commission” will be established, and in parallel the Planning Division will be strengthened in terms of human and financial resources and logistics, with the objective of providing long term outcomes for the benefit of future generations.

RURAL OUTLINE PLANNING SCHEME

The rural outline planning scheme will be reviewed to incorporate the strategic focus of the new National Development Strategy (NDS).

PLANNING GUIDELINES

The transition towards sustainable land use management will require modifications in **planning guidelines** to include emerging issues such as waste disposal, preservation of the eco-systems and the impacts of climate change (e.g. sea-level rise). The enforcement of planning guidelines, and the framework legislation on land use planning, will be strengthened.

LONG TERM

URBAN PLANNING SCHEME

Planning Schemes, through integrated spatial planning will be developed. The Schemes will define areas for agricultural, industrial, services, commercial and residential zones, and ecological sensitive areas, namely wetlands and forests. The urban outline planning scheme should be reviewed taking into consideration changed priorities of Government, public sector investment agencies and continued urbanization in the conurbation and suburbia. The underlying philosophy is to better integrate economic development with spatial planning to ensure that resources are efficiently allocated and investment is soundly planned. This will make planning for services/ amenities like transport, water, electricity, schools and health services more effective.

B. CONSTRUCTION INDUSTRY

SHORT TERM

NORMS AND STANDARDS

The existing land use patterns, zoning regulations, building codes and standards in the context of housing and urban development will be reviewed. Information on local standards of workmanship and cost of construction would be made available **online**.

New regulations on building norms and standards would be reviewed to debar contractors with poor performance records to ensure quality workmanship and post-delivery services. Norms and standards in the construction sector would be amended to cater for the needs of the elderly and handicapped.

MEDIUM TERM

INNOVATIVE DESIGNS

In view of climate change, innovative and low-energy/ zero-energy housing and buildings that enhance high levels of insulation, energy efficient windows, “eco-blocks”, cool roofs, low levels of air infiltration and heat recovery ventilation to lower heating and cooling energy needs would be designed. “Zero-energy” buildings will be designed to utilise renewable sources of energy allowing them to operate independent of the electric grid hence / or sell their surplus to the electric company. Water-conservation fixtures would be used to efficiently manage water consumption, rainwater harvesting, use of recycled water, and on-site sewage treatment.

PUBLICATION OF A “SCHEDULE OF RATES” FOR THE CONSTRUCTION INDUSTRY

With a view to ensuring that quality works are delivered to clients (public and private), it is proposed that a Government agency, in association with private sector partners, publish specifications for different types of projects in the construction industry.

The **Construction Industry Development Board** (CIDB) (which has as mission the development of a competitive and efficient construction industry) can be given the mandate to publish –

- (i) an annual “Schedule of Rates” for civil works,
- (ii) desired specifications for civil works, and
- (iii) Design Manuals, Works Manuals and Maintenance Manuals.

Similar arrangements exist in other countries, e.g. in India the **Central Public Works Department (CPWD**, established in 1854) provides services from project concept to completion, and maintenance management. It also published specifications and manuals which are followed by local public works departments.

LONG TERM

COMMON SOFTWARE FOR PUBLIC SECTOR CONSTRUCTION PROJECTS

Put in place a software for construction projects in the public sector that allows monitoring of projects from the inception to the completion stage. In the United Kingdom, the “**Building Information Modelling**” (BIM) software is used to create the design, and take different measurements needed, either for a new building or for renovation works. The software gives a detailed list of items which allow more accurate estimation by the public body, and when the contractor quotes using the same system, it allows for an in-depth comparison.

The system can also connect various government bodies involved in a construction project such that real-time information is available to one-and-all for informed decision making and monitoring / supervision.

C. BUILDINGS

SHORT TERM

REGISTERED BUILDERS

Mauritius will need a “professional” construction sector with reliable actors whereby performance is endorsed by the **Construction Industry Development Board** (CIDB). It is proposed that all buildings, including individual houses, be constructed by registered builders to proper standards, with suitable insurance and guarantee of workmanship over a specific period of time. Small contractors will be encouraged to train and register with the CIDB. The guarantee system will stimulate the insurance and brokerage markets with a positive incidence on economic growth.

MEDIUM TERM

NATIONAL BUILDING GUIDELINES

Major infrastructural projects will necessitate the implementation of good practices resulting in high quality of workmanship, services and construction materials. In this view, it is important to strengthen regulations in the construction industry to ensure that proper safeguards are enforced. “**National Building Guidelines**” will be developed.

Experience with international norms will help Mauritian contractors to bid for projects in the region, and beyond into Africa. The Association of operators in the construction sector would thus earn international recognition.

Mauritius will adopt “**Euro Codes**” or other new standards so that local engineers can keep pace with latest developments in building and civil engineering designs.

RESEARCH AND DEVELOPMENT

To ensure sustainability in the construction sector, there is a need to invest in research and development to identify new construction materials to move towards greener materials and flexible house designs that are cost effective and energy efficient. Fiscal incentives would be granted to builders in designing green and efficient buildings that use local construction materials and renewable energy sources. The use of locally available materials will be promoted.

D. HOUSING SECTOR

SHORT TERM

ECO-FRIENDLY HOUSING

Given the diverse groups of seniors / handicapped, the different preferred living arrangements, as well as the dynamic needs and changes in family structure and health status, it will be necessary to provide a comprehensive (and affordable) range of options for this category of citizens.

Households would be encouraged to produce their own renewable energy through photovoltaic sources.

MEDIUM TERM

HOME OWNERSHIP INITIATIVE

Home ownership will be encouraged such that the rate reach a record of 100% in 2030 (up from 85% in 2014). Home ownership initiative is important for social stability, inclusiveness and building a sense of nationhood. The private sector would be encouraged to help in this effort. More subsidised home ownership schemes would be introduced to encourage people to own their own house. Zero-down payment scheme, and rebates on registration dues, would be introduced for first-time homebuyers.

LONG TERM

SMART HOME

Smart homes would be developed where all utilities, namely water, electricity, gas, wastewater are connected in one central grid. Smart meters will be installed to save energy, and operate digitally to allow for automated and complex transfers of information between the home and the utilities provider. A home energy management system would be installed to connect all the appliances to save energy.

HOUSING CLUSTER

Since land is scarce in Mauritius, housing clusters would be designed as they are cheaper to build and maintain compared to individual housing units, thus making them more affordable. Housing cluster will offer residents individual landed dwellings with shared facilities like security, communal swimming pool, gymnasium, playground, tennis court, and car parks, e.g. as prevails in Singapore. This would cater for the needs of the medium- to high-income segment of the market.

MARRIED CHILD PRIORITY SCHEME (MCPS)

The MCPS will be introduced to help married children to live closer to their parents, either in the same flat, the same estate, or in a neighboring area (say within 2 kms). The rationale being that it makes it easier for children to care for their ageing parents, and provide comfort to their elderly parents. The married children would benefit from the scheme that may include tax incentives, home loans at a rebate, subsidized registration duties on purchase of a house, etc. The close family proximity will provide an opportunity for grandparents to transmit family and societal moral and ethical values to their grandchildren to bridge the inter-generational gap.

PUBLIC SERVICE REFORM

SITUATION ANALYSIS

The “**Public Service**” in Mauritius is a heritage of the French and English colonial systems. The “traditional” public administration is procedure and rules-based, and its relation to the public is that of a detached, impartial interpreter and implementer of the laws and policies of the government of the day. It is characterized by the hierarchical accountability, and further upwards to political leaders.

The “**Public Sector**” (**General Government Sector**) in Mauritius acts as a facilitator, and in many cases, provides a range of services direct to the public. The sector comprises –

- (i) Central Government - covers all units that are agencies of the country's central authority. It consists of Budgetary Central Government (all Ministries and Departments) and Extra Budgetary Units (agencies operating under the authority of the Central Government and responsible for the performance of specialised governmental functions in such fields as health, education, social welfare, construction, etc.),
- (ii) Regional Government - comprises the Regional Assembly of Rodrigues, and
- (iii) Local Government - consists of Municipalities and District Councils.

State-Owned Enterprises (SOEs) are another set of agencies that assist government in the delivery of public services.

EMPLOYMENT IN THE PUBLIC SECTOR

The Mauritian public sector is the “preferred employer” for a variety of reasons, including security of employment, better salary and benefit package, and guaranteed retirement benefits. Between 2005 and 2015, employment in the “General Government Sector” has remained fairly stable at around **73,000**. The **Table** below summarises employment in the General Government Sector over the past decade -

	2005	2010	2011	2012	2013	2014	2015*
Mauritian Labour Force	528,600	551,900	548,600	556,300	571,200	575,700	584,600
Mauritian Employment <i>(Total Employment)</i>	478,100	509,700	505,900	511,700	525,700	530,900	538,300
Unemployment Rate (%)	9.6	7.6	7.8	8.0	8.0	7.8	7.9
Number employed in General Government Sector (as at March) • As a percentage of Total Employment	73,361 <i>15.3%</i>	73,996 <i>14.5%</i>	73,526 <i>14.5%</i>	72,531 <i>14.2%</i>	72,871 <i>13.9%</i>	73,023 <i>13.8%</i>	73,860 <i>13.7%</i>

* Provisional

Source: Statistics Mauritius

CHALLENGES AND OPPORTUNITIES

Citizens view government as “one entity” and expect seamless, transparent, efficient and more accessible services from the public sector. “Delivering the Customer Promise” remains a daunting task in the face of ever increasing citizen expectations, changing demographics, while operating in an era of austerity.

The public sector in Mauritius faces many challenges / bottlenecks that have resulted in inefficiencies and wastages in service delivery. These include, amongst others -

- (i) rigidity of legislations, regulations and bureaucratic procedures that have not evolved over time and are no longer responsive to the needs of society,
- (ii) absence of foresight, leadership, and strategic long-term planning,
- (iii) the “structure” of the public sector has outlived its purpose and has not adapted its work methods to the new environment - the public sector is oversized, and the personnel do not possess the “right profiles and competencies,”
 - weak inter- and intra-agency coordination - public sector agencies operate in “silos” and barely communicate either horizontally across institutions or vertically within the institution, that lead to overlapping responsibilities and duplication of activities,
 - the predominance of “administrative staff” over “technical / professional staff” has delayed the emergence of “technocrats”,
 - senior management are not motivated, do not have leadership skills, and do not have a “clarity of goals” which reduces their ability to drive their agencies,
 - poor communication with stakeholders,
- (iv) irrational, unprofessional and unethical behavior (mindset) of public officials who operate “by the rule”, no accountability (or the feeling of impunity),
- (v) prevalence of poor governance – a perception of high level of corruption,
- (vi) absence of human resource planning, and capacity building - institutional and procedural bottlenecks hamper recruitment, inadequate in-house technical capacity, acute shortage of “specialists” in technical fields, low salaries of professionals that do not attract talents, lack of “succession planning”,
- (vii) political interference - over-lapping roles of public officers and political advisors, public employees often hired based on political connections, political considerations in the creation of new public agencies often created to suit particular nominees, and

- (viii) state-owned enterprises / parastatal bodies lack stewardship and governance. Some parastatal bodies have “outlived” their purpose.

OPPORTUNITIES

The above challenges call for a multi-level transformation of the public service – changing the way agencies think and act, how they view their roles, how they share information, how they innovate to bring continuous improvements, how they manage risks, how they pool together resources to better serve their clients, better integration to reduce duplication (and wastage), and sourcing modern technology in service delivery. A feedback mechanism from clients will go a long way in improving the way services are delivered.

INTERNATIONAL BENCHMARKING

The **United Nations** has designated **23rd June as Public Service Day**. The United Nations Public Service Awards (an annual event since 2003) is regarded as the **most prestigious international recognition of excellence in public service**, and aims to promote the role, professionalism and visibility of public service worldwide. Mauritius has participated in this contest but has not reached the top of the league.

KEY THRUST AREAS

The key thrust areas for a complete “transformation” of public sector agencies include -

- (i) Legal Reforms,
- (ii) Managing / Eradicating Wastage in its Different Forms,
- (iii) Institutional and Policy Reforms,
- (iv) Human Resource Strategy,
- (v) Communication Strategy, and
- (vi) Reform of State-Owned Enterprises.

The above “key thrust areas” rest on the premise that accountability is reinforced at all the “echelons” of the public sector, and adherence to the “Code of Ethics” is part of the culture of public officials.

VISION FOR 2030

With the advent of the “Fourth Industrial Revolution”, the public sector will operate in a large social network that responds to the needs and values of the population, one that transcends the public-private sector and Ministry-Agency divide, higher performance of the systems and peoples, accountability, transparency, and professionalism in service delivery. The public sector will undergo profound changes

in the next 25 to 30 years and will witness radical changes in the way business is conducted, and emergence of professions that do not exist today.

The Vision for 2030 is one of an integrated, dynamic and forward-looking public service that is imbued with “**global thinking**” abilities, new forms of managerial and leadership skills, political impartiality and socially responsible attitude. In 2030, bureaucratic rigidities will be reduced to a minimum, productivity improvement will be achieved across all organisations, and the public service will be in permanent communication with its stakeholders, equipped with better qualified personnel, as well as modern tools and technology, to guarantee excellence in service delivery in a most “cost-efficient” manner. E-Governance will be all omnipresent.

NATIONAL STRATEGIES

SHORT-TERM

LEGAL REFORMS

The legal framework for the public sector will undergo profound changes with the enactment of the **Public Service Bill**. The Bill provides for the establishment and management of the public service, and includes a “Code of Conduct” for Ministers, Public Officers and Advisers, and the grade of officers who should declare their assets.

MANAGING / ERADICATING WASTAGE IN ITS DIFFERENT FORMS

The (annual) Report of the Director of Audit lays open the extent of wastage in the public sector. However, the Public Accounts Committee (PAC) has not been able to stop this trend. The latest initiative includes the establishment of the **Public Sector Efficiency Bureau** with the objective of eliminating wastage and misuse of public funds. The Bureau will, amongst others, review administrative and financial systems and procedures, and investigate into suspected cases of wastage, improper use and mismanagement of public funds across the public sector.

The largest wastage relates to poor project planning. Officials often mistake slow progress for “prudence” (risk averse attitude), but when problems occur at the implementation stage it is found that sufficient time was not spent into the preparatory phase while drafting the technical specifications and timelines for deliverables, often leading to changes in the scope of works and budgets. Expertise has to be built in the public service in Project Planning and Contract Management to handle large complex projects.

Another area that requires attention is “**Asset Management**”. While enormous budgets are allocated towards capital expenditures, no proper “Register of Assets” is kept, and no attention is paid to regular maintenance of these costly assets (equipment, buildings, roads, etc.). Over time, the cost of rehabilitation becomes so huge that the asset abandoned and unused. Adequate funding and capacity building can avert this risk factor.

GOVERNANCE: Governance remains an issue in the public service. The lack of accountability for mismanagement of funds, taking of wrong decisions, extension of timelines with cost-overruns for projects etc. leads to a perception of impunity as responsibility cannot be ascribed to a single person with the exception of a few sanctions. A sanction / reward mechanism should be introduced to act as deterrent / to raise the level of professionalism.

MEDIUM-TERM

INSTITUTIONAL AND POLICY REFORMS

The time is ripe for a policy shift in recasting / re-engineering the public sector to cope with shocks and crises, and to define the roles and attributions of the various agencies. The focus should be on sealing-off the “weak linkages” in the service delivery chain, and strengthening of “accountability”.

Strengthening of “institutional capacity” (funding, human resources, regulatory framework, reengineering of systems, strategic planning skills, rational decision making) to provide a more integrated set of services that solves clients’ problems is another. The focus should be on –

- (i) shifting from a “rule-based” bureaucratic tradition to one that is more “outcome-oriented”, proactive, responsive and market-oriented,
- (ii) modernising / rationalizing work processes and procedures with the use of modern technology (e.g. ICT) to cut down on reaction time, and setting up of centralized databases to support policy making,
- (iii) planning for new services to respond to ever evolving / emerging social and economic conditions, while keeping stakeholders informed of developments, and
- (iv) delivering “quality services” in a cost-efficient manner, that are customer-oriented, and that are benchmarked against international standards.

Another aspect is to streamline and simplify administrative and institutional structures, and redefine the roles and responsibilities of public sector agencies to avoid overlapping responsibilities and duplication of services. In the first instance, it would be necessary to undertake a complete audit of current systems, update and upgrade systems, and eliminate duplications to create lighter, better performing, and result-oriented institutions. However, strong “political will” is of outmost importance.

“WHOLE OF GOVERNMENT” APPROACH : Many countries (e.g. Singapore, Malaysia, Australia, UK) have adopted a “Whole of Government” (WOG) or “Networked Government”¹² concept to deal with the problem of overlapping jurisdictions / portfolios and responsibilities. Under this framework **ALL** agencies work in a collaborative mode, and *“think across organisational boundaries”* towards attainment of a common “Vision”. This concept should be studied, modified and adopted.

OTHER POLICY REFORMS to be investigated include -

- (i) extending the hours of work / introducing flexi time or a shift system as Mauritius goes global,
- (ii) the extension of working hours should be accompanied by measures that improves personal life of employees and productivity, e.g. an efficient transport system (a “Mass Transit System” will reduce travel time and stress), late night shopping, safety and security, etc.,
- (iii) explore new models of state-funded services offered by different providers, e.g. health, education, transport, without departing from the principle of a “welfare state”,
- (iv) agencies supplying services could become stand-alone entities and charge for their service so as to recover costs plus a return on capital (for future investments), and
- (v) enhancing the work-life balance of personnel, including better working environment and conditions (e.g. Health Insurance Scheme).

HUMAN RESOURCE STRATEGY

Currently, there is an absence of proper “Human Resource Planning” in the public sector. At best, public sector agencies are involved in “HR Administration” (as opposed to strategy). A transformation process has to be implemented, the starting point of which should be a “Needs Assessment” exercise. The Needs Assessment will shed light on the imperfections of the existing system, and enable human resource planning in an informed manner. Some of the policy issues to be considered include -

- (i) audit of the exact requirements of human resources in the public service in number and profiles,
- (ii) rightsizing of the public service - right mix of Managerial, Technical and Administrative staff with new profiles and new terms and conditions,
 - aim at flexibility and versatility in the service, e.g. high quality workforce, multi-skilling, right skills and competencies,

¹² Foreword Budget FY 2008-09, and Foreword Budget 2009 (July-December 2009)

- flexible on formal qualifications but focus on identifying staff with an ability for “***think and solve problems***”, i.e. on “capacity to deliver”,
 - merit-based recruitment and promotions,
 - modernising the recruitment process to attract and retain the best talents with clear career paths, and better career opportunities for “high flyers”,
 - anticipating the emergence of new professions that do not exist today,
- (iii) HR process re-engineering, e.g. review / streamlining / consolidation of the number of Schemes of Service to do away with inefficiencies and wastage of manpower, and introduce a “Competency-Based Framework”, and
- (iv) modernization of human resource management aimed at improving conditions of service and at building capacity, e.g. life-long learning.

PERFORMANCE MANAGEMENT : Performance in the public sector should aim at achieving results, and the focus should be on “outcomes” and “impact” (as opposed to mere “outputs”). To also extend coverage of the Performance Management System (PMS) to also include Ministers and Chief Executives as is the practice in New Zealand, Singapore and Malaysia.

CAPACITY BUILDING : Investment in Capacity Building Programmes. A Training Needs Assessment (TNA) is needed to map the needs and expertise required taking on board technological advancements, on building competencies in leadership and change management skills, on life-long learning, and the Civil Service College should assert itself as a “Regional Centre of Excellence”.

Culture Change in the Public Service : The perception of “lethargy” in the public sector is legendary. Public Servants should see themselves as “facilitators” to advance the cause of nation building and creation of wealth for the wider benefit of citizens. Public sector officials should be imbued with qualities that includes -

- (i) rational and ethical behaviour (honesty, accountability),
- (ii) forward-looking and committed to the service of the nation,
- (iii) a new mindset towards discipline, work ethics and integrity, and
- (iv) a new “Work Culture” driven by productivity, creativity, innovation and research.

COMMUNICATION STRATEGY

The power and role of information technology will open new frontiers in supporting change in the public sector. Service delivery units should shift away from being a “distant bureaucrat” and be closer to their

clients by adopting a “customer-centric”, better understand citizen’s needs and priorities, and also measure the extent of dissatisfaction. These measures might include¹³ -

- (i) developing and maintaining good communication with civil society to gauge efficiency in service delivery, e.g. regular “customer satisfaction surveys”, “Mystery Shopping”, adhering to Customer Charters,
- (ii) forge inter-Ministry and intra-Ministry linkages,
- (iii) regularly update websites with latest information to inform, and to obtain on-line (direct) feedback into customers’ needs and priorities, and
- (iv) provide clear, consistent and courteous on-line explanations and services to the public.

What matters is speed, simplicity and efficiency.

LONG-TERM

REFORM OF STATE OWNED ENTERPRISES

State-Owned Enterprises / parastatal bodies constitute a cornerstone for delivery of services that would otherwise have been unmet. The proliferation of these agencies has a huge impact on the annual budgets. Areas of reforms of state-owned enterprises / parastatal bodies include -

- (i) Chairmen and CEOs enter into a “Performance Contact” with their respective Ministers, and are assessed annually,
- (ii) Governance is an issue -
 - need for a new law (SOE Law), review appointment of Directors (composition, mix and competencies),
 - recruitment of staff need to be apolitical and based on meritocracy,
 - mandatory compliance with “Code of Corporate Governance”,
- (iii) Improve Monitoring and Evaluation - transparent performance reporting and accountability, including sanctions for dealing with non-performing SOEs, managing wastage and inefficiencies,
- (iv) SOEs / parastatal bodies should have more flexibility in cost-recovery / determination of fees and prices for services rendered, plus a return on capital for future investments,
- (v) Skills development / Capacity building / life-long learning at all levels to capture the benefits of state-of-art technology, and
- (vi) Many SOEs are not responding to aspiration of citizen, and do not have their “raison d’être”. Political commitment and political will is utmost to restructure, close or merge these agencies.

¹³ McKinsey Centre for Government, Implementing a Citizen-Centric Approach to Delivering Government Services, July 2015

GOOD GOVERNANCE, ETHICS, TRANSPARENCY AND ACCOUNTABILITY

SITUATIONAL ANALYSIS

There is no universal definition of “**good governance**”. However, the generally accepted definition is that of the **United Nations** (UN) which reads as follows “*Good Governance is the process of decision-making and the process by which decisions are implemented (or not implemented)*”.

Basically good governance is a system of governance that preserves peace, and imposes a culture of integrity, altruism, respect and virtue, and traditional values (moral society). The concepts of “good governance” and “corruption” are closely linked.

WHAT HAS BEEN ACHIEVED SO FAR AND WHAT IS IN THE PIPELINE : The commitment to stimulate a culture of good governance (eradication of fraud, corruption and other malpractices and irregularities) has been on the agenda of the successive Governments, with the hope that all citizens, businesses and Government agencies will engage on the doctrines of good governance, transparency and accountability. To approach this multi-faceted issue, many initiatives have been taken, including the reinforcement of the legal arsenal. Examples include, -

- (i) establishment of the “**Independent Commission Against Corruption**” (ICAC) – set up under the Prevention of Corruption Act 2002 - with a mandate to educate the public and enlist their support in combatting corruption, and to investigate any act of corruption,
- (ii) establishment of the “**Equal Opportunities Commission**” – set up under the Equal Opportunity Act 2008 - to consolidate equity (equality of opportunity), inclusiveness, fairness (elimination of discrimination) and social justice,
- (iii) establishment of a “**Ministry of Financial Services, Good Governance and Institutional Reforms**” with a mandate to combat fraud, corruption, malpractices and establish good governance practices,
- (iv) enactment of the “**Good Governance and Integrity Reporting Act 2015**” which aims to encourage and foster a culture of good governance, integrity reporting in the public and private sectors, to disclose malpractices and recover unexplained wealth, and to protect and reward persons making disclosures and reports (*whistleblowers*),
- (v) establishment of a “**Public Sector Efficiency Bureau**” to make public sector organizations more productive, transparent, accountable and customer friendly,
- (vi) **Code of Ethics** - several regulatory agencies have published a Code of Ethics for their regulatees, and the public sector has its own Code of Ethics,

- (vii) sensitization campaigns -
 - (a) the “Office of Public Sector Governance” regularly organizes seminars and workshops for the benefit of parastatal bodies to sensitize Board Members and senior officials on the need for reforms of their governance structures to perform better and to ensure high standards of service delivery,
 - (b) the Independent Commission Against Corruption (ICAC) organizes explicit seminars and workshops for different segments of the population,
 - (c) the Mauritius Council of Social Service (MACOSS) organises programmes to promote a culture of transparency, good governance and altruistic service within the civil society, and to fight against corruption and other malpractices, and
- (viii) upcoming legislations include -
 - (a) a Property Valuation Bill to simplify the current valuation system and promote transparency and good governance,
 - (b) Freedom of Information Bill (transparency / communication),
 - (c) Financing of Political Parties,
 - (d) Reform of the “Best Loser System”, and
 - (e) A (new) Declaration of Assets Act for Members of Parliament and high ranking public officers.

CORPORATE GOVERNANCE :Good governance is at the core of perception of business probity and integrity, and of reputation enhancement. In the aftermath of the high-profile corporate scandals in the years preceding the financial crisis of 2008, investors' confidence in the honesty and integrity of corporations was shattered.

To transform Mauritius into a credible base for business, the country needs to uphold its reputation as a trustworthy jurisdiction. To this end, local-based corporations should exhibit the **core values good ethical behaviour** - honesty, integrity, transparency, accountability and respect for the environment. Foreign investors pay much attention to issues such as predictability of Government Policies, Law & Order situation and level of perceived corruption as these impact on the cost of investment and add to the risk factor.

The “Report on Corporate Governance for Mauritius” (The Code) was published in October 2003 with the objectives to promote “*good corporate governance practices*” in designated public and private sector institutions with a compliance date as from the reporting year ending 30th June 2005. There is an annual event that rewards the “Best Published Accounts” to encourage firms to pursue best disclosure practices in their annual reports. However, compliance with the Code has been poor, especially amongst State-Owned Enterprises. The Code is under revision and the new version is expected to be published during the year 2016.

CHALLENGES AND OPPORTUNITIES

INTERNATIONAL FINDINGS - Over the last **three decades**, the importance of good governance as an agent for economic performance (growth and development) has been increasingly recognized by academics (economists, political scientists, sociologists, legal scholars) and policymakers. Literature suggests that –

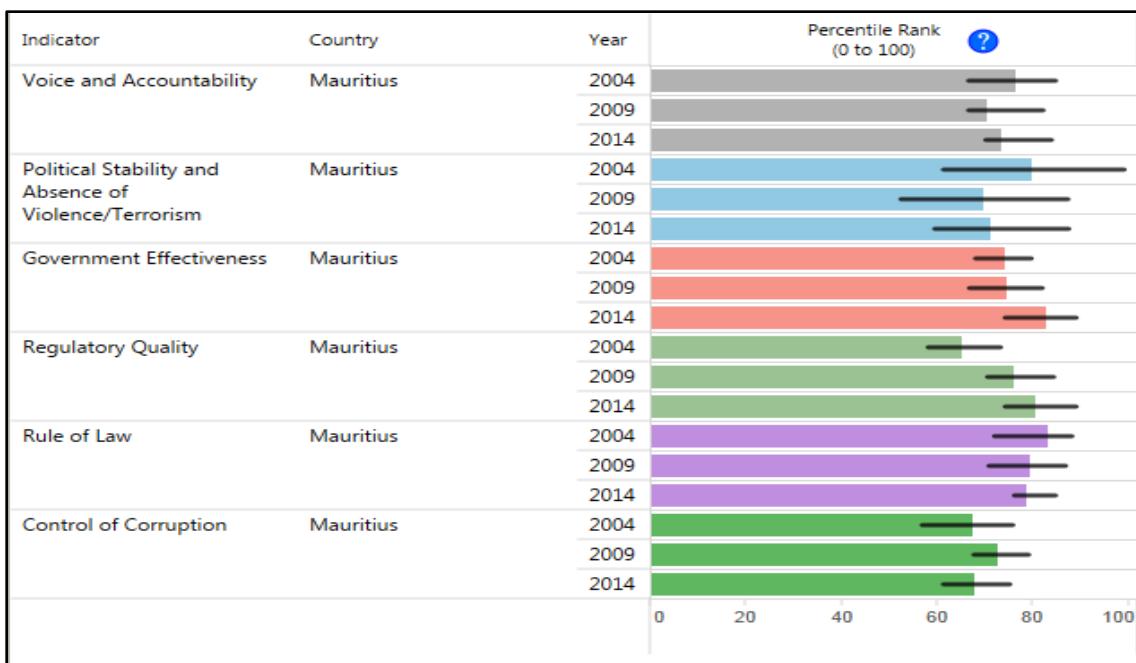
- (i) there is a strong positive correlation between per capita incomes and the quality of governance (World Bank),
- (ii) a good investment climate (and good governance) provides opportunities and incentives for firms to invest productively, create jobs, and expand (World Development Report 2005),
- (iii) less-developed countries and transition economies that wish to attract foreign direct investment are often handicapped by their weak governance structures and practices (OECD),
- (iv) poor governance breeds corruption, and has an adverse effect on the morale of the citizens, and
- (v) countries that have superior good governance have performed better in terms of creating innovation / knowledge-based economy, e.g. Japan, Singapore.

Scholars have also identified the pitfalls for “bad governance” as being -

- (i) the lack of political will and commitment, political favouritism and bribery, weak enforcement agencies, wrong decisions / collusion by people in position of responsibility,
- (ii) climate of uncertainty (in a country) and distrust of legal arsenal (by the citizenry), and
- (iii) societal issue – citizens believe that corrupt practices is a “**way of life**”.

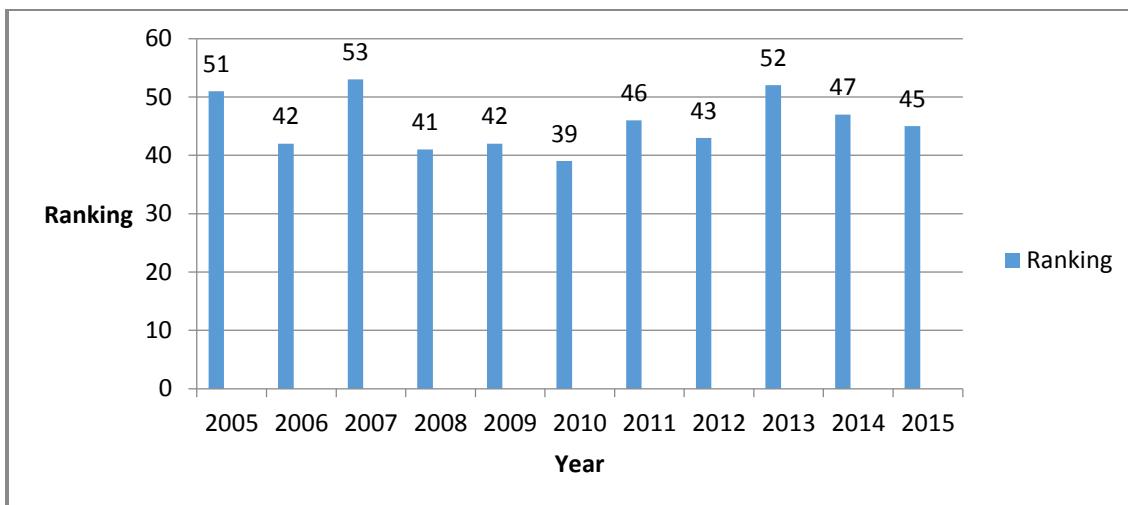
Scandals (whether centered around corruption, bribery, fraud or other greed) have had a significant impact on the world economy. Evidence points that the sub-prime mortgage in the US, and the high-profile corporate scandals (Enron, Worldcom, Freddie Mac, Lehman Brothers, Satyam, Tyco, Parmalat) have been the root cause of the global financial crisis and economic downturn of 2008-2009. Other examples abound around the world – respected corporate names caught in tax frauds, high profile politicians jailed for corruption, Ponzi schemes (Madoff), the WikiLeaks saga, Petrobras (Brazil), “Panama Papers” - are cases in point.

The World Bank’s “**Worldwide Governance Indicators**” (WGI) aggregates indicators of **six** broad dimensions of governance, namely - *Voice and Accountability; Political Stability and Absence of Violence/Terrorism; Government Effectiveness; Regulatory Quality; Rule of Law; and Control of Corruption*. The WGI is computed for 215 countries and territories around the world. The evolution of the WGI for **Mauritius** is given in the graph below.



The concepts of “**governance**” and “**corruption**” are closely linked. **Corruption** is defined as the “*abuse of public authority or trust for private benefit*”. It is common knowledge that corruption adversely affects economic activity and citizens’ welfare, and that an environment characterised by “poor governance” offers greater incentives and more scope for corruption.

Since 1998, Mauritius has been assessed by the “**Corruption Index**” published by **Transparency International**. The country’s ranking (out of 133 countries assessed) has been erratic as shown in the graph below.



In Mauritius, observations indicate that there has been a decline of good governance in the political arena, in the business sector and in the community generally. Examples of “bad governance” abound in the Mauritian society, and this triggers a reflection as to what should be done to combat this scourge.

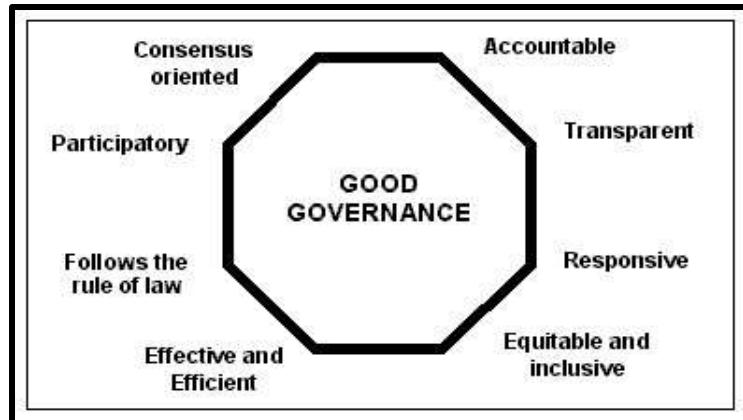
KEY THRUST AREAS

The “key thrust areas” for promoting Good Governance, Ethics, Transparency and Accountability is a **continuous process** and hinges on -

- (i) Societal Reforms, and
- (ii) Government and Institutional Reforms.

VISION FOR 2030

The Vision for promoting “Good Governance” in Mauritius is enshrined in the box hereunder. This mapping, based on the UN model, assures that corruption is minimized, the views of the most vulnerable in society are heard, and that the system is responsive to the present and future needs of society.



These objectives are in line with the UN's "**Sustainable Development Goals**" (Goal 16) which reads as follows "promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels".

NATIONAL STRATEGIES

Good governance principles should be omnipresent at home, at school, at work, in public places, at the place of worship and everywhere else.

SOCIAL REFORMS

Good governance is a complex mechanism through which citizens articulate their interests and exercise their rights and obligations. A healthy democracy needs well-informed citizens, tolerant and respectful of societal values and the law, and who take an active interest in the affairs of the country. This is the recipe for development, peace, stability, tolerance and mutual understanding in the society. In short, good governance is about achieving **desired results** and achieving them in the **right way**. But, the "right way" reflects a "**frame of mind / a mindset**" that is largely shaped by **cultural norms and values**, i.e. the behavioural aspect (*and sometimes by self-interest*).

Over the years there has been an outcry over the "**erosion of values**" in the Mauritian society, and this is amply verifiable by the number of thefts, crimes and unruly behavior. "**Citizenship Education**" should start at a tender age so that youngsters are convinced that (as individuals) they have a duty in improving school life, their community and society at large.

Mauritius is a **multi-ethnic society** and the path to good governance should be treaded with care and diligence to avoid ethnic tensions. The aspirations of citizens to a better quality of life, better distribution of income, meritocracy in recruitment, and political representation is legitimate. The quest for a "**welfare**

state" to ameliorate the plight of the population (free education, free transport for students and elderly, free health services, universal basic pensions, social housing, etc.) is now deeply ingrained in the Mauritian society. A stark reminder of departures from the established "norms" is the "Arab Uprising" that recently shook the middle-east.

An immutable quality of governance is "**intellectual honesty**". One can have all the best rules in the world, but one cannot legislate "**honesty**" as it is easier to get around a rule than a principle. Good Governance will only prevail when there are "**role models**" in the society, e.g. when political figureheads put in practice what they preach. Leaders should have a good understanding of the historical, cultural and social complexities of society, and command respect. They should take informed decisions on political, economic and social priorities based on broad-consensus with the citizenry. Commitment to the highest level of accountability and transparency (communication), and operating at the highest level of professional and ethical standards should be the "**norm**" for all leaders. This "role modeling" will trigger a commitment and a culture to bring about change in the Mauritian society.

Mauritius needs a strong "**national identity / a brand / a motto / a slogan / a shared vision**" built around the principles of good governance and which will bind together the whole population. This in itself will create a "**national mindset**" and a "**unique goal**" that is **ingrained in the DNA of all Mauritians**; one that transcends religious, cultural and ethnic cleavages; and that will be the foundation of the pursuit of excellence and the socio-economic miracle that the country aspires.

GOVERNMENT / INSTITUTIONAL REFORMS

Turing to Government and Institutional reforms, the following paths should be explored -

- (i) reliability and predictability of policies, and firm commitments by Government requires a certain degree of political stability. This provides the certainty that investors seek to reduce financial and political risks. For the economy to grow and develop, political stability is of prime importance,
- (ii) strong governance structures in public sector organisations will avert "clash" with political imperatives (e.g. personal will of a strong leader and state power) for long-term decision making that is sustainable. The qualities / skills of employees have to be mobilised to their fullest potential to make things happen,
- (iii) Governments have access to a vast amount of information. Dissemination of this information (transparency / communication) using open-source information systems not only provides critical information to firms and individuals, but also establishes the credibility of the government, and

- (iv) a participatory approach enables citizens to make their voices heard. This enables Government to take informed decisions in the best interest of its people and the country. With time, this becomes a “**virtuous circle**”.

DRAFT CONFIDENTIAL

SPORTS

SITUATION ANALYSIS

Sport is undeniably an important driver of social and economic development, such that the UNESCO 1978 International Charter of Physical Education and Sport classified sport as a “fundamental right for all”. Sport as an economic activity in Mauritius is trivial, but has potential for development. It is part of “Art, Entertainment and Recreation Activities”¹⁴, whose contribution as a whole was 2.8% of GDP in 2014. In high-income economies, the economic contribution of the sport sector is around 2% of GDP.

From an analysis of sectors that are important in enhancing the size of the sport industry, 3 sectors usually stand out: tourism, fitness and the media, and education. The Tourism Direct Gross Value Added for “Recreational, cultural, sports industry”¹⁵ was less than 9%, generated by both international and domestic tourists. The number of sport activities offered in Mauritius has grown over the years and includes golf, water ski, para-sailing, and biking. Golfers represent 6% of total visitor arrivals in Mauritius and golf is responsible for 9% of the tourism revenue. The Fitness and the media sector has also grown over the years, as the number of commercial sport suppliers such as fitness clubs, sport accessories shops, and pay television sport channels have increased. Sport education however, is not an important part of the sport economy, although the number of athletes across an increasing number of sport disciplines has increased over the years.

Physical activity benefits the body and mind and can reduce many of the risk factors for NCDs, which represent about 80% of the disease burden in Mauritius. Few Mauritians undertake physical activity; only about 11% of women and 23% of men undertake sufficient physical activity as recommended by the World Health Organisation. The situation among the youth is equally dramatic with 14.8% of youth practicing vigorous and 17.7% moderate exercises. Only 14.3% of youth played on sport teams. The WHO recommends a minimum of 30 minutes of physical activity a day, which would reduce the risk of NCDs by 40%. If the population undertakes this practice, it would save millions of rupees on annual public health expenditure in terms of direct costs. This is notwithstanding the indirect costs such as loss in productivity and the intangible costs in terms of the costs to the individual and their family that NCDs cause.

CHALLENGES AND OPPORTUNITIES

The ubiquity of physical inactivity represents a significant compounding factor for many of our social problems affecting in particular our youth; they include violence, suicide, alcohol and drug consumption, and juvenile delinquency which has increased from 5.5 in 2013 to 5.8 in 2014 per 1,000 population. Physical inactivity also compounds health problems, as lack of physical activity increases the prevalence of NCDs. One of the primary sources of increasing levels of physical activity is through regular active participation in some form of sporting activity.

¹⁴ 2014 National Accounts, Statistics Mauritius

¹⁵ 2010 Tourism Satellite Account, Statistics Mauritius

Sport participation has been shown through a growing body of research to directly benefit individuals by imparting socio-emotional processing skills, such as feelings of belonging and conflict resolution, as well as supporting their mental and physical health. Through sport, individuals can acquire skills to support peaceful conflict resolution and team-building, which contributes to pro-social behaviour on and off the sports field.

Sport is important in communities as it helps to build social harmony, and can form part of the national strategy for economic growth. Further, sport and physical movement can have a positive impact on education, as well as psychological benefits. Sports can be used to enhance levels of concentration and discipline; in the context where children face social hurdles, this skill-transfer is particularly important.

Sports can contribute to economic development by creating jobs and stimulating economy. The organisation of a major sporting event for example, is an opportunity for the local economy, as people who attend will spend money on food, lodging, transportation and other tourist-related activities. Active sport tourism and event sport tourism can be further developed in Mauritius.

KEY THRUST AREAS

- Promote daily physical activity. From a public health perspective, this measure has high priority. Community-wide campaigns that include on-the-ground support such as physical activity counselling, risk-factor screening and education at work sites and schools, and community events, will be carried out.
- Encourage opportunities and settings for social interaction and the creation of social capital, and sharing of common interests. This can be done by developing appropriate partnerships and engaging all stakeholders across government, NGOs and civil society and economic operators in actively and appropriately implementing actions aimed at increasing physical activity across all ages
- In the context of urban renewal and rural revival, use policies and practices to improve continuity and connectivity of streets, sidewalks and develop bicycle lanes. Zoning regulations and roadway design standards should be reviewed to promote destination walking.
- Strengthen sports recreation and elite sports programme for athletes and citizens by increasing investment in sports and physical education. Swimming as an activity will be promoted at the national level. Because of its importance as a life skill and its physical benefits, everyone, but especially children and youth, will be encouraged to learn swimming. Further, ocean diving training will be promoted as this is a key skill that will be in demand as the ocean economy develops.

VISION 2030

Our vision is to ensure healthy lives and promote well-being for all at all ages (SDG3) by promoting physical activity and sports for development inclusive of the seniors, the needy, and people with disabilities.

NATIONAL STRATEGIES

SHORT-TERM

- Adopt and implement national guidelines on physical activity for health
- Carry out community-wide campaigns on the benefits of physical activity
- Create walking trails
- Encourage the setting up of sporting and physical recreation clubs
- Encourage the development of appropriate and sufficient sports and recreation facilities
- Improve pedestrian and cycling infrastructure
- Review zoning regulations and roadway design standards to promote destination walking
- Improve provision of quality physical education in educational settings, including opportunities for physical activity before, during and after the formal school day
- Enhance physical education activities in youth centres
- Set up a Seniors Fitness Programme for the 50+ to promote active ageing
- Create play sport areas
- Negotiate scholarships for students in sports through bilateral cooperation
- Increase enforcement of sports facilities to ensure services are up to level and safe
- Encourage spectators interest in sport events by enhancing the sport entertainment factor
- Encourage local production of sport accessories
- Promote the teaching of swimming and ocean diving

MIDDLE-TERM

- Set up a School of Sports that will be run during the school holidays for young sportspersons aged between 7 and 16

LONG-TERM

- Establish a training sports academy
- All secondary schools to include swimming in their curriculum

RODRIGUES

SITUATION ANALYSIS

Rodrigues is an autonomous outer island of the Republic of Mauritius. It is situated about 560 km to the north-east of Mauritius and its land area is 104 sq. km. It gained autonomous status on 10 December 2002 and it is governed by the Rodrigues Regional Assembly (RRA). The Central Government provides an annual grant to Rodrigues for its budget.

Rodrigues is about 10800 ha out of which 10% is in private hands which means that the State is completely responsible for the management of lands.

As of 31 December 2015, the resident population of Rodrigues was estimated at 42,058, with an almost equal proportion of males and females. About 63.5 per cent of the population was in the age group 15 – 64 years while about 38 per cent was in the under 21 age group.

Total Employment in 2012 was 17,554 and employment by main industrial group was distributed as follows: Agriculture, forestry and fishing (5,917), Public Administration (2,752), Manufacturing (1,515), Hotels and Restaurants (1,033).

The economy of Rodrigues, which is based mainly on agriculture, fishing and tourism, depends heavily on Mauritius as its main export market.

Agriculture, which is more of subsistence type, is essentially for production of fresh vegetables, maize which is one of the staple foods, onion, sweet potato, red bean and garlic. lime, chillies, and octopus are the main agricultural produce and fisheries products exported to Mauritius. The livestock which is made up of cattle, goats, sheep, pigs, and poultry serves the local market requirements and surplus is exported to Mauritius.

The manufacturing sector is limited to a few enterprises, namely food processing, metal work, wood products, garment making (tailoring), shoe making and small agro-business. Rodriguans are also involved in handicrafts production from local materials. Employment in the manufacturing industry is on the increasing trend with more small and medium enterprises being set up.

Tourism has, since the last two decades, emerged as a growing sector of the Rodriguan economy. Some 49,530 travellers visited Rodrigues in 2000 and the number increased to 69,514 in 2014, Mauritius (50 per cent) and France including Reunion (23.5 per cent) consisting the main markets.

CHALLENGES AND OPPORTUNITIES

CHALLENGES

- Deepening disparity between the standards of living on mainland Mauritius and Rodrigues.
- Poverty – 37.5 per cent of Rodriguan households live below the poverty line (compared to a national average of 9.4 per cent). The proportion of poor persons measured by the relative

poverty line (defined as half median household income per adult equivalent and estimated at Rs 3,483 in 2012 compared to Rs 2,716 in 2006/7) increased from 18.9 per cent in 2007 to 19.5 per cent in 2012 compared to a national level of 9.8 per cent.

- As per the Relative Development Index 2011, Rodrigues is the second least developed region in the Republic of Mauritius after Le Morne.
- Water stress – Rodrigues is a severely water stressed island with recurring episodes of drought impacting on agriculture and potable water availability. In some regions water is distributed once a month which has promoted the practice of rain water harvesting and storage.
- Specific sectorial problems, including decreasing acreage and production, overfishing in the lagoon, frequent market failures, low quality norms and food safety strategy, lack of competitiveness of the Small & Medium enterprises sector (handicrafts, Agro-processing, light industries, etc), limited private sector activities
- Specific social problems – high unemployment; AIDS; increasing NCDs such as hypertension and diabetes; teenage pregnancy; drug addiction and alcoholism.
- Rodrigues is extremely vulnerable to climate change impacts.
- Strong dependency on Mauritius. Mauritius is the main export market for Rodrigues
- Migration of best Rodriguan brains to Mauritius and other countries.
- Infrastructure development –ICT connectivity is presently through satellite; the airport cannot afford the landing of large aircrafts; Port Mathurin cannot cater for the berthing of large vessels.
- Degradation of the environment and depletion of the natural resource base. The bulk of the native forests have disappeared since the 1970's as a result of using wood as a major source of fuel up to the 1980's.
- The disappearance of the native forests and subsistence livestock farming practices on the forest land over a period 3 decades has led to overgrazing, soil erosion and lagoon siltation.
- Feminization of poverty and domestic violence against women.

OPPORTUNITIES

- The Island's remoteness shelters it from imported pests and other diseases.
- There is growing demand worldwide for bio-foods. Agricultural production methods in Rodrigues have been historically based on natural farming and organic production methods.
- Whilst the bee sector is thriving in Rodrigues, bee colonies around the world are collapsing from disease and suspected contamination from agro chemicals.
- The Island offers a wide range of investment opportunities, namely, in tourism, agri-business, information and communication technology, aquaculture and other marine-related activities.
- Rodrigues is endowed with pristine scenic beauty and breath taking landscapes.
- Rodrigues is famous for its authentic traditional and peaceful lifestyle.
- Rodrigues coastal lagoons are located in one of the world's cleanest oceans, thus offering high potential for aquaculture and seaweed culture.
- Rodriguans who have emigrated to Europe, Australia/New Zealand and North America represent a diaspora with strong ties with their motherland.

- A large section of the population has remained in the informal sector. This sector can be formalized and professionalized through entrepreneurship and business development.
- A matriarchal society, where women entrepreneurs can play a leading role
- The leadership and management capacity of the political class to rally the population to a common cause
- Rodriguezans are fluent in English and French.

KEY THRUST AREAS

- Increase water storage, distribution and production capacity so as to foster sustainable economic and social development and improve the livelihood of Rodriguezans.
- Explore new avenues of development (Aquaculture, ICT, creative industries), develop vibrant entrepreneurial culture, create business opportunities and attract investors to Rodrigues so as to gear the economy towards high value addition, generate new employment opportunities and reduce poverty.
- Develop the huge potential offered by the sea – attract large cargo and cruise vessels, develop sea food, aquaculture, and develop the land-based oceanic industry.
- Expand the tourism industry with a strong emphasis on eco-tourism
- Develop sustainable agro-farming, agro-industry and agro-forestry.
- Introduce innovation in existing economic sectors: Livestock, Agriculture, Bee keeping.
- Develop the necessary infrastructure (roads, ICT, fibre optic connectivity, etc) and logistics (port, airport, etc) to boost economic growth
- Adhere to sustainable development practices and preserve the unique eco-system integrity of the island.
- Increase use of renewable energy.

VISION FOR 2030

The vision for 2030 is to transform Rodrigues into an ‘economically vibrant ecological island’.

Rodrigues will become a worldwide renowned reference for ecological islands and will be branded as the eco-tourism destination by excellence. The ‘Île Ecologique’ principle will be mainstreamed in all development policies relating to Rodrigues.

Rodrigues will be poised to become a model for sustainable and renewable energy development.

The Vision is anchored on three key pillars: economic, environmental and social with sustainable infrastructure development as a support component.

KEY POLICY RESPONSE/SECTOR STRATEGIES

Private Sector-Driven Growth.

The private sector will be called upon to play a leading role in the development of the Rodriguan economy and become the preferred partner for employment creation and poverty alleviation in the island. Business opportunities and incentives' framework will be developed while the investment climate will be improved to attract domestic and foreign direct investment conducive to the emergence of a strong and vibrant private sector oriented towards production for niche export markets.

The Rodriguan population will be encouraged to develop into dynamic, self-reliant and outward looking entrepreneurs capable of taking advantage of available opportunities.

a. Rodrigues Label and Rodrigues Export Strategy

The 'Rodrigues Label' will be further developed as a powerful brand and slogan for the marketing of typical Rodriguan bio products like honey, octopus, red beans, lime, chillies, grass fed beef and cheese, local black pork, goat and sheep meat.

Compliance with international quality standards and certification such as the national eco labelling initiatives like MS 165 in tourism and Maurigap in food crops will be central in the development of the 'Rodrigues Label'.

Although reliance on Mauritius as a major export destination will continue, the diversification of export markets will be encouraged. The 'Rodrigues Label' will facilitate the penetration of Rodriguan products as Rodrigues benefits from the same advantages as Mauritius in terms of access to regional commercial blocs (COMESA, SADC) and other international markets (EU and USA)

b. Agro-Industry and Agro-Forestry

The agro-industry will, besides making a major contribution to GDP, employment, environmental sustainability and food security, occupy an important role in achieving the vision for Rodrigues. This sector will be transformed into a vibrant and modern agricultural sector with focus on high quality and high value bio-products for self-consumption and exports.

Emphasis will shift from subsistence to cash farming. Forward and backward linkages will be fostered and technology and agricultural sciences will be leveraged.

The development of the agro-forestry sector and rejuvenation of forests will be encouraged with the replacement of invasive alien species by endemic trees and new plantations replacing mature trees.

c. Sustainable Tourism Development

Rodrigues aims to attract 150,000 tourists by 2015 and 200,000 tourists by 2030, implying further investment in the hotel sector with the construction/expansion of hotels, boarding houses, gites, eco-lodges and tables d'hôtes to accommodate the growing number of tourists in Rodrigues. Focus will be on the development of eco-tourism, eco-ventures, eco-friendly attractions and accommodation with a progressively higher value added.

The island provides good spots for the development of sports tourism and niche activities such as kite surfing, big-game fishing, snorkeling, jet skiing, parasailing amongst other aquatic activities.

d. Fisheries and Aqua- Culture Development

Rodrigues has great potential to develop a vibrant seafood industry. Seafood and aquaculture activities with high export and commercial value will be exploited, based on existing species in Rodrigues. The development of the land-based oceanic industry will be studied to assess its potential in Rodrigues so as to enable the “Blue Revolution”.

e. Nurturing the Emergence of New Sectors

The emergence of new sectors like ICT, Arts, Creative industry, and other cultural sector as pillars of the economy will be encouraged.

A professional wood and furniture industry will be developed. Trees that have reached maturity and which are not capable of further carbon sequestration (e.g, Tecoma, casuarina, coconut trees and other mature local hardwoods) as well as invasive species (e.g, Accacia Nilotica) can boost the wood and furniture sector in Rodrigues through professional value addition and conversion into timber.

f. ICT

Rodrigues will be globally connected, benefiting from substantially higher bandwidth through a submarine fibre optic cable.

The emergence of the ICT sector can unfold new prospects for school leavers and young graduates in Rodrigues. The island has the potential of becoming the ideal complement for Mauritian ICT-BPO companies wishing to focus on higher end processes in Mauritius and outsourcing some of the activities to Rodrigues.

The investment opportunities identified for Rodrigues in the ICT-BPO industry include: Call Centre activities; BPO non-voice – Data Entry; Limited Software Development, including Mobile Applications Development; and Disaster Recovery Centre.

g. Environmental Sustainability

Sustainable development shall be the guiding principle as far as socio-economic development is concerned. Sustainability shall be ensured through preservation and restoration of natural assets, fauna and flora protection, bio-diversity protection and respect for eco-system integrity.

Key actions towards environmental sustainability will include: integrated waste management; planned land use development; sustainable management of forests, natural reserves and protected areas; increase use of renewable energy sources; and centralized livestock management as a means to protect against overgrazing of pastures and the resulting and irreversible damages of soil erosion and lagoon siltation.

h. Renewable Energy

The development and use of renewable energy sources will be central in achieving the vision of making Rodrigues a fully ecological island. The island will have recourse to secure and sustainable energy supply and rely less and less on fossil fuels. The development of inland and offshore wind farms, wave power, along with the extensive use of solar power will be encouraged and incentivized. The adoption of latest technologies will be facilitated.

By 2020, 40% of housing units and 30% of public buildings in Rodrigues will be equipped with solar energy panels for production of clean energy.

i. Access to Quality Basic Necessities

Access to quality basic necessities such as water, decent housing, sanitation facilities, land, health and education facilities will be ensured.

Water: No stone will be left unturned to improve the availability of safe drinking water and improve water supply for irrigation purposes. Major projects will include: construction of additional desalination plants, replacement of old galvanized iron pipes by HDPE pipes buried in the ground, construction of retention walls and dams, increasing water storage capacities and extensive rain water harvesting at household level and in agricultural fields.

Housing: Provision of decent housing facilities to the most vulnerable will continue with a target for accommodating more than 50% of the most vulnerable persons by 2030.

Land: A land use plan and agriculture cadaster will be produced and operationalised for an efficient system of Country and Town Planning for more effective land management

Health: The provision of appropriate health care services is essential to ensure health, safety and wellbeing. The health care system which is essentially a “curative” one could potentially become unsustainable as non-communicable diseases (NCDs) and other diseases are rising and becoming increasingly difficult and expensive to treat.

An Integrated approach in the delivery of health care services, combining curative, promotion and preventive medicines, will be promoted. The range of medical facilities will be increased and medical infrastructure and technologies will be upgraded to ensure that the Rodriguan population is healthy and enjoy healthy modes of living.

Education: Universal access to education for all will be ensured and leveraging on new technological tools, education will be made attractive to all Rodriguan students.

In consultation with the Central Government, the smooth implementation of the nine-year schooling programme will be ensured and the existing curriculum and syllabus will be adapted to fit the Rodriguan realities. Strategies for sustainable environmental education- school gardening will also be developed.

Critical Public Infrastructure and Logistics

The Vision for Rodrigues will be supported by the development of critical public infrastructure and logistics – air and sea transport, telecommunications.

The runway at Plaine Corail airport will be extended to allow the landing of larger aircrafts while Port Mathurin will be developed to allow larger passenger, cruise, petroleum and cargo vessels to berth in line with the objective of establishing Rodrigues as an integrated maritime centre where all types of vessels of economic interest to Rodrigues can anchor.

There is a high demand for passenger sea shipping including luxury cabins which are appreciated by tourists. A combined Passenger and goods vessel cruising at medium speed to complete the trip in less than 36 hours would give a boost to the tourism sector. Export of fresh agro and livestock products to Mauritius by the existing boats is not attractive for buyers due to infrequent and irregular trips.

j. Soft Skills

Investment in people through education and training adapted to the Rodriguan realities will be another pillar to support development by ensuring an adequate supply of competent, highly skilled and motivated human resources which is responsive to the labour market needs.

SHORT-TERM

- Set up a fully operational SME park in Rodrigues and a Technopole which would allow the full development of capacity, capability and professionalism in the handicraft making, marketing sector and other innovative sectors.
- Put into place a well-structured and efficient marketing system for exports and to ensure fair trade.
- Increase the production of selected commodities to maintain or achieve self-sufficiency.
- Develop the production of selected commodities with high export potential.
- Develop new high value added supply chains through plantations of coconut which have multi-purpose benefits: leaves can be used as fodder; Coconut water as the national health drink, coconuts can be processed into virgin coconut oil for export; coconut coir and shell can be used as materials for handicraft; coconut can provide all year round nectar for bees to feed on.
- Carry out a sustainability study to determine the tourism carrying capacity and optimal segments and niches to develop.
- MTPA to develop new tourism packages based on eco-tourism and honey moon destination concept.
- Develop policy framework through the establishment of tourism master plans and developing long term national policy for sustainable tourism development

- The ongoing efforts for compliance of hotels, and restaurants to the MS 165 eco label will be fast tracked in Rodrigues. Rodriguan hotels and restaurants will benefit from the framework set up and capacity building carried out for Energy Auditing and Energy Efficiency Building Code (EEBC).
- Encourage local investment and attracting foreign investment in the tourism sector.
- Effective quality assurance and regulations will be developed to ensure that tourist accommodation meet high standards.
- Shift to eco-friendly technologies like solar energy for cooling of hotels and water heating and improving telecommunication technologies
- Carry out a study to assess the resource potential of the sea around Rodrigues.
- Redeployment of fishers to alternative livelihood programmes.
- Develop the policy, legal and institutional framework and financing mechanisms to facilitate and encourage the development of our creative industries.
- Provide more market-based policies to inform the population of the benefits of Arts and Creative industries.
- Establish processes to encourage formalization of creative enterprises.
- Enhance the capacity of creative enterprises, associations and individuals.
- Develop a professional wood and furniture industry.
- Submarine fibre optic cable fully operational in Rodrigues.
- Create ICT dedicated parks and infrastructure.
- Set up a dedicated SME ICT park in Rodrigues. It will serve as an incubator for aspiring entrepreneurs and trigger the creation of a full-fledged ICT/BPO industry on the island.
- Ensure efficient waste collection and adopt Waste Stream Reduction strategies.
- Construction of a “Centre de tri de déchet”
- Sustainable management of forest lands and nature reserves.
- Sustainable land resources management and law enforcement
- Improve management of Protected Areas, Nature Reserves and Caves
- Increase the penetration of solar energy.
- 40% of housing units and 30% of public buildings in Rodrigues equipped with solar energy panels for production of clean energy;
- Set up a system for centralized livestock management: Individual farmers will be called upon to manage larger herds of cattle in a shed or feedlot at the bottom of valleys with an allocation of land to grow fodder further uphill. This practice will help to eliminate the practice of free range cattle in an inclusive and sustainable manner and liberate pasture land which can be converted to agro-forestry.
- Ensure water distribution on a regular basis through the provision of rain water storage tanks, setting up of desalination plants and the construction of dams and retention walls.
- Provision of decent housing facilities to more than 50% of the most vulnerable persons;
- A land use plan and agriculture cadaster available and operational for an efficient system of Country and Town Planning for more effective land management;
- Upgrade health infrastructure, including: provision of an appropriate system and adequate facilities for geriatric medicine; setting-up of a Neonatology unit; ensure the availability of drugs, reagents, and equipment.
- Improve on the health-related MDGs (maternal-, infant-, and under-five mortality rates).

- Prevent the propagation of HIV/AIDS and provision of quality care to support to People-living-with-HIV/AIDS (PLWHA).
- Reduce the incidence of NCDs though education on Nutrition
- Address the problem of a high Teenage Pregnancy.
- Definition of a National Alcohol Control Policy.
- Introduction of Computerised Health Cards on a pilot basis through the project of E-Health.
- Improve sea navigation around the island through dredging of pass, create navigational passages, navigational aids at passes, etc.
- Efficient and effective operation of a modernised airport and ancillary services;
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- Medium-Term
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- Bio agro processing development, for example production of milk products like yoghurt and cheese
- Bio products (fresh and processed) of Rodrigues with high export value (like honey, lemon, chili) exported to national, regional and international markets with a Rodriguan Label.
- Develop Rodrigues as a global export centre of disease free Queen bees while ensuring sufficient quantities to maintain/increase existing production of honey.
- Rodrigues to be consolidated into a honeymoon destination with development of new lodges and chalets to attract high end tourists.
- All tourist enterprises to resort to at least 40% of renewable energies as advocated in the Energy Strategy Action Plan.
- Increase foreign (Private) investment in fishing vessels and seafood processing.
- Small scale aquaculture based on cage culture encouraged and replicated.
- Build horizontal and vertical clusters and networks within the creative industries.
- Promote application of ICT to production, distribution and marketing of creative products and services.
- Adoption of a Physical Deployment Plan.
- Set up a proper spatial entity for selected data themes for a strong Geographical Information System.
- Adopting Biomass/Forestry as a source of energy and adaptation to climate change.
- Exploit the potential of wind energy.
- Waste to energy: waste from cattle will be collected and converted to produce electricity (biogas waste to energy) and organic manure.
- Water desalination plants functioning with clean energy such as wave energy.
- Existing runway extended.
- Ensure energy security by targeting 100% energy efficiency. Emphasis will be placed on solar, wind energy with farmbased biogas as a firm power in the mix.
- Women to hold 50% of seats in the Rodrigues Regional Assembly.

LONG-TERM

- A new port developed in Rodrigues with all facilities to enable the anchoring of larger cruises, and to harbor large fishing vessels as well as a marina for yacht.
- A fully equipped and vibrant fishing port and a developed aquaculture industry.
- A study will be carried out to assess the feasibility of having a dedicated passenger carrier with cabin and seated configuration to serve the Mauritius-Rodrigues route. This strategy will fit within the overall strategy of regional tourism development, such as the 'Île Vanille' concept.
- Achieve self-sufficiency in production of selected agricultural products.
- All tourist accommodations are 100% ecological.
- All wastes produced in Rodrigues are recycled and recycling becomes an income-generating sector.