Nurturing an Innovative Nation...

- Identifying new vision to respond to changing challenges...p6
- Economic productivity assessment as a tool to select best performing enterprises...p4
- Improving enterprise productivity using 5S and Kaizen...p5
- Enhancing the Competitiveness of the Manufacturing Sector...p6
- Greening Mauritius for Environmental Sustainability...p3
- Mauritian Civic Action Team Rewarded at the 11th ICSQCC in Turkey...p7
- Green Schools...p4
- ELIT adapted for Prevocational Students...p8
- Building Sector Competitiveness through Life-Long Learning...p8
- Women Empowerment for Poverty Alleviation...p8
Nurturing an Innovative Nation...

Eco-living: pour une ile Maurice durable – everybody can make a difference -

The theme of the 3rd edition of the Innovators Mauritius Award – goes in line with the Government’s objective of making Mauritius a sustainable island especially at a time when threats of global warming and soaring prices of oil and foodstuffs and wide scale environmental pollution are jeopardizing human life and the environment. The objective of the award is to awaken the creative potential of the local people so that innovation becomes an integral part of the local culture.

The project was launched on 12th July 2008 at the MGI auditorium in the presence of the Minister of education and Human Resources. The challenge remained capturing people’s attention around the subject which is rather broad unlike the previous years’ theme. Changing mindset is by no means an easy task. Asking people to switch to green living, all at once, might scare most people away from implementing those environment-friendly changes. However, it was high time we took stock of the situation. People had to understand that innovation is becoming a question of survival both for the individual and the industry. To raise awareness, the film ‘An Inconvenient Truth’ by former US Vice President Al Gore was projected. If the vast majority of scientists are to be believed, we have hardly ten years ahead to avert a major catastrophe and that does not exclude Mauritius. The substance of the film was expressed in the local context with facts and figures to show that if we do not start acting responsibly now, Mauritius will soon be deprived of its white sandy beaches, among others. Imagine the scene! The choice is ours.

Innovate or Evaporate...

A sensitization campaign in the press, television, radio and billboard started off with the launch. Our aim was to trigger people to think and bring about innovative ideas, products or processes that could be eventual solutions to changing our lifestyle in an attempt to minimize the size of our ecological footprints. In fact every little bit we do in this regard is a much needed step towards preserving our natural resources for our future generations.

Participants were given 2 months to work out their entries. The media campaign was sponsored by the Barclays Bank, our main sponsor for the Innovators Mauritius Award III. During the launching ceremony, Mr Cyril Wong, Finance Director, Barclays Bank re-iterated his commitment to Green initiatives: “As a bank with a passion for innovation and a commitment for the protection of the environment, Barclays could not refuse to be associated with the NPCC for its 3rd edition of the Innovators Mauritius Award.”

Sensitisation Campaign

The NPCC also organized regular workshops conducted by both local and international resource persons to better equip the participants to take part in the award. Twelve workshops were organized with twelve resource persons on various themes covering eco-living, touching 215 potential participants.

Various road shows were organized at the Municipality of Vacoas / Phoenix and Jumbo Riche Terre in collaboration with the Barclays Bank. We were also physically present at the Trianon Shopping Park on Sundays, to distribute brochures and inform the public about the project and participation requirements. A special road show was organized for children aged between 5 and 13 years old on various activities related to the theme of the award, while the parents, NPCC’s real target group, were sensitized on the award.

On the closing date for entry, 107 submissions were received. The jury set up by the Technical Committee to determine the awardees in the different categories is composed of Joel de Rosnay, Advisor to the Prime Minister and Manoj Vaghjee, Managing Director, Sustainable Resource Management Ltd., co-chair persons and Pamela Bapoo-Dundoo, Co-ordinator, UNDP GEF-Small Grants Programme, Gaitree Manna, Principal Counsel, State Law Office, Manoj Bumma, Course Co-ordinator IVTB, Prof. Romeela Mohee and Prof. Radhakrishna Somanah, both from the University of Mauritius as jurors.
The Green Productivity (GP) programme, launched by the NPCC in July 2007, is gaining momentum with the implementation of a series of actions and programmes geared towards making Mauritius a sustainable island through improvements in productivity and environmental performance.

Green Productivity is a strategy for enhancing productivity and environmental performance for overall socio-economic development through the application of appropriate productivity and environmental management tools, techniques, and technologies to reduce the environmental impact of organisation's activities, goods and services.

Green Productivity Clinics

Through Green Productivity Clinics, under the Green Productivity Opportunity Assessment (GPOA), enterprises are able to identify opportunities that exist at various operational levels to reduce energy losses and minimize their impact on the environment resulting in improvements in productivity. Following a series of meetings with SMEs, two pilot studies were conducted.

In the first case, the students of the University of Mauritius, the partner institution collaborating with NPCC on this project, investigated various energy saving devices in a tuna processing enterprise. The intervention highlighted:

- use of additive heavy fuel oil to minimise fuel consumption by the boilers
- possibility of installing an economiser for heat recovery from flue gases
- possibility of installing a Pressure Reducing Valve (PRV) to reduce steam pressure from 9 bars to 6 bars
- effect of installing Variable Speed Drive (VSD) on boiler fans
- use of energy saving lights and lowering the light intensity in the production area
- lagging of offices' roof to minimise electricity consumption by the air conditioners

MEASURES RESULTING IN SAVINGS, IF THE ABOVE REFERRED WERE IMPLEMENTED:

- use of additives resulting in significant fuel savings - an optimum concentration of 700 ppm (parts per million) is recommended
- addition of an economiser on each boiler would result in an annual saving of Rs1,760,580 for a total investment of Rs3,279,860 with a payback of 1.86 years
- installing a Pressure Reducing Valve (PRV) will result in an annual fuel saving of Rs1,387,500 for a total investment of Rs200,000 and a pay-back of 36 days
- installing Variable Speed Drive (VSD) on boiler fans will reduce electricity consumption of fan motors
- insulation of the cooking equipments will help to minimise fuel oil consumption. The project cost using rock wool as lagging has been estimated to be around Rs934,135 with a payback of 1 month and 7 days
- replacing high intensity 250 W sodium lamps with 150 W sodium lamp can bring an annual electricity savings of Rs26,930. The investment cost was found to be Rs132,000 and the payback period estimated to be 4.90 years
- higher energy saving is achieved with the use of AL/Bubble/AL material as insulating material for lagging the offices' roof. AL/Bubble/AL rolls also found to be the most cost-effective insulating material with a payback period of 2.26 years

In the second case, the study which focused on electrical energy consumption, water consumption, solid waste disposal and the setting up of an Environment Management System in a hotel under GPOA, the recommendations emphasized on:

- regular cleaning of air conditioners filters
- setting air conditioners thermostat to 23-24°C and providing wall mounted temperature controls in all rooms for a reduction in electricity consumption
- use of reflective films on windows
- review of the billing tariff as a recognition for the effort made to protect the environment
- utilisation of energy saving bulbs with a saving of Rs400 monthly with an initial investment of Rs2000 and a pay back time of 5 months
- use of new shower heads, reducing usage from 20 litre/minute to 10 litre/minute with an investment of Rs3000 and a payback of 3 years
- phasing out of single flush toilet with dual flush toilets (6/3 dual flush toilets ) for an investment of Rs6000 per dual flush and a payback of 10 years
- installation of a rainwater harvesting system of a 6000-litre tank with an initial investment of Rs15000 and a payback of 10 years
- installation of Faucet aerators in all taps requiring an initial investment of Rs3000 and a payback of 4 years
- development of an Environmental Policy and in the process create awareness and train staff for an effective implementation of the policy
- monitor resources consumption and regular maintenance on daily, weekly and monthly basis
It is imperative to inculcate in the children, at an early age, the respect for the environment that constitutes the livelihood of mankind. Furthermore, children are the active citizens of tomorrow. The NPCC’s Green School programme, based on the fundamentals of Green Productivity, teaches the children the importance of waste recycling, resource efficiency, and how to be environmentally sensitive.

Green School Manual

The Green School Manual introduces the concept of Green Schools and elaborates on its need and benefits in the Mauritian context. It explains the implementation approach as well as the methodology proposed to be adopted for the programme and provides information about the various tools and techniques which could be used for the implementation of the programme.

Green Purchasing Tool Kit

Dr Prasad Modak, the Indian consultant who has been collaborating with NPCC for the Green Productivity programme, has developed a Green Purchasing Tool Kit – available at the Knowledge Centre of NPCC - with the support of the International Green Purchasing Network. The kit, an interactive web / CD-ROM based package provides a wealth of information in interactive modules for creating awareness as well as understanding sustainability, eco-materials, eco-components, eco-products, and eco-services. It also provides a step-by-step interactive “implementation assistance” as well as training about how to convert to green purchasing and how to establish a green procurement programme for an institution or company.

Green Procurement

Awareness Raising

Government, being a substantial consumer of services and products, can set the trend towards green procurement by favouring the purchase of environmentally preferable products and services.

To raise awareness on the concept of green procurement, NPCC in collaboration with the Ministry of Finance organized a workshop for purchasing officers of all governmental and parastatal bodies on 5th August 2008. The workshop focused on identifying the major areas for improvement with respect to green procurement in Mauritius. Paper and electronic wastes were among the major areas of concern and barriers to greening the procurement process were identified. Participants expressed the wish that further interventions be organised in the future to implement green purchasing.

Economic productivity assessment as a tool to select best performing enterprises within the context of a “Mauritius Business Excellence Award”

Introduction

In this era of globalization, the development of the necessary competitive edge has become a determinant factor for survival. In this context, the Ministry of Industry, Small & Medium Enterprises, Commerce and Cooperatives is organizing the “Mauritius Business Excellence Award” for Mauritian businesses to motivate them to continuously improve ways of doing business. The objectives of the award are:

• To provide recognition to businesses that are making continuous efforts to improve management and operational practices.
• To identify role models adopting world class practices for others to emulate.
• To encourage and stimulate best business practices for achievement of higher productivity and competitiveness.
• To promote use of economic and productivity assessment tools among participants for improvement in management and operational practices.

NPCC support to the pre-selection exercise

The NPCC set up a Corporate Business Development (CBD) unit in 2002 to provide industry with comparisons on generic processes to enable them to learn from best practices through benchmarking, in-plant productivity improvement interventions and network facilitation. In 2003, at a time where the textile and garment industry of Mauritius was facing severe crisis following the dismantling of the Multi-Fibre Agreement (MFA), the Textile Emergency Support Team (TEST), a high level committee comprising of the Ministry of Finance, Ministry of Industry, Small & Medium Enterprises, Commerce and Cooperatives, private sector institutions and industry support Institutions, was set up to address urgent issues in the industry. The NPCC was called for support and it thus assessed the economic productivity of 52 textile and clothing enterprises to drive
Improving enterprise productivity using 5S and KAIZEN Model Company project

Kaizen is a Japanese word with two elements - KAI meaning CHANGE and ZEN meaning GOOD (FOR THE BETTER). The two elements, which build up KAIZEN, mean improvement/change for the better and ongoing/continuously.

When applied to the workplace KAIZEN means continuing improvement involving everyone - managers and workers alike. The KAIZEN business strategy involves everyone in an organization working together to make improvements. Kaizen focuses on Team Building.

KAIZEN is a culture of sustained continuous improvement focusing on eliminating Muda, Mura (inconsistencies) and Muri (strains experienced by people and equipments) in all systems and processes of an organization. The KAIZEN strategy begins and ends with people. With KAIZEN, an involved leadership guides people to continuously improve their ability to meet expectations of high quality, low cost, and on-time delivery.

To date, the NPCC has implemented 57 Gemba Kaizen workshops – 26 in the public sector and 31 in the private sector (23 workshops especially in textile and garment enterprises). The major improvements in the targeted organisations were quality improvement, cost savings, enhance product and service delivery and space release (leading financial gains and optimisation of space for organisational operations)

Model Company project

The Model Company project focuses on building model cases of productivity improvement in businesses using 5S and kaizen. The key element of the model company project is the consultancy approach starting from obtaining the top management commitment, followed by problem diagnosis and recommendations and ending by implementation (including sensitisation, training, communication, team-based implementation and monitoring) and sharing of results between Model Companies. The focus is also on building the internal capacity of the businesses for continuous improvement.

For the model company project, the NPCC is supported by assistance from the Japanese Technical Cooperation on Productivity Improvement to African Nations. The latter forms part of the Japanese programme for diffusing Productivity Movement from Asia to Africa. The technical assistance is channelled through the Japanese Productivity Centre for Socio-Economic Development (JPC-SED) and its main objective is to enhance NPCC's services in terms of consultancy.

The project is in pilot phase for the whole year of 2008, in which five companies – namely Mauritius Post Limited, CIM Finance, Precigraph Ltee, Laiterie de Curepipe Ltd and FAIL Processing Plant Ltd - have been selected, based on predefined criteria, to participate. The objective of the pilot phase is to demonstrate tangible results for future replication. The JPC-SED visited the companies four times since January 2008 to guide the NPCC in the consultancy service.

Preliminary results

The main benefits of the project to the companies are:

1. Implementation of a structured approach (including productivity measurement methods and team-based approaches) to manage productivity improvement and empower employees to identify, reduce and eliminate muda
2. Development of targets and action plans for productivity improvement in alignment with the business objectives and strategies
3. Improvement of physical layout through implementation of 5S to enhance production efficiency
4. Measurement of productivity and identification of key bottlenecks to productivity improvement
5. Financial gains as a result of identification, reduction and elimination of muda
Enhancing the Competitiveness of the Manufacturing Sector in Mauritius

As part of the Government’s Agenda to support the manufacturing sector to move to global competitiveness, likely support have been identified to encourage innovation, market development, capacity building, product and quality improvement, productivity improvement and overall enterprise management. The expressed need is to enhance competitiveness at firm and sector levels in Mauritius. The identified support targets are SMEs in light manufacturing, food and agro-industry, textiles and clothing, pharmaceutical / chemical, jewellery and furniture sectors.

In response to cabinet decision of setting up a task force on the manufacturing sector, and at the request of Enterprise Mauritius an assessment of the economic productivity of textile and clothing enterprises was conducted to identify relevant policy measures required. Institutional synergies to support relevant firm level interventions resulted in an overall successful approach to redress the situation in this particular sector. Economic productivity assessments require access to financial data preferably for three past years. In fact, to assist enterprises in data collection and standardize the process, a questionnaire was developed.

The figure below shows two sample screens of the EPB software.

The main objective of the economic productivity benchmarking and capability enhancement programme is to develop and/or enhance competitive capabilities of SMEs...

The NPCC made a proposal based on economic productivity benchmarking (EPB) and capability enhancement programme. The main objective of the economic productivity benchmarking and capability enhancement programme is to develop and/or enhance competitive capabilities of SMEs through continual quantitative measurement and inter-company benchmarking and to identify generic (sector level) and firm-specific initiatives that would enhance the competitiveness of the targeted sectors. During the assessment, the individual firm’s competitive capabilities were mapped according to the above referred two critical dimensions being assessed to understand the present competitive status of the company and to discuss the way forward. 46 enterprises have already undergone the capability assessment, and the relevant reports have been addressed to Enterprise Mauritius.

Another dimension of enterprise management is the capabilities put in place. Q-Fitness is a tool that has been successfully used in assessing Mauritian firms capabilities to respond to their strategic objectives and manage critical areas of business risk. More than 150 companies have been assessed by the NPCC.

In 2008, Enterprise Mauritius made a request to NPCC to assess 110 manufacturing enterprises from different sectors to enhance competitiveness of small and medium enterprises (SMEs) in Mauritius. The targeted sectors are textile and apparel, agro-processing, furniture making, cosmetics and light manufacturing.

Identifying new vision to respond to changing challenges

Strategic visioning, an exercise whereby an organisation identifies new objectives that will enable it move towards new horizons, is one of the services that the NPCC offers to the corporate sector.

In 2007, the NPCC acted as facilitator to the Ministry of Finance and the Agricultural Marketing Board to review the objectives in view of the changing environments which they were facing.

With this experience in hand, the NPCC has been approached by the State informatics Limited and its sister organisation, SILNAM Information Technology Solutions (Pty) Ltd., to conduct strategic visioning exercises for them.

At SILNAM Information Technology Solutions (Pty) Ltd., in Windhoek, Namibia on 27th and 28th August 2008, the exercise which involved the senior management team reviewed the vision and mission of the organisation; discussed how to translate the new vision and mission into meaningful strategies, objectives and actions; developed performance indicators; and discussed about the appropriate organisational structure that would enable the delivery of services as per the new objectives.
Mauritian Civic Action Team Rewarded at the 11th International Convention for Students Quality Control Circles (ICSQCC) in Turkey

The Crazy Readers Civic Action Team from Port Louis State Secondary School did honour to their school and their country by winning the Juran Award at the 11th International Convention for Students Quality Control Circles (ICSQCC) in Istanbul, Turkey. The Convention, held from 26th to 28th August 2008, was organised by Quality and Peace Education Center, Turkish Center for Schools of Quality and the Association for Continuous Improvement in collaboration with the World Council for Total Quality & Excellence in Education (WCTQEE) and 2002 UNESCO Peace Education Award City Montessori School (CMS), Lucknow, India. The theme of the convention was “Peace at Home, Peace in the World, on the way of training Total Quality People”

The ICSQCC is a platform where students, teachers, academicians, quality experts, professionals and managers from around the world meet to share experiences on quality education. The five students of Port Louis SSS, successfully presented their case study “Upgrading of school library and promoting reading culture through appropriate activities” at the international convention. Their presentation was greatly appreciated by the jurors namely Dr Syed Ali, from the John Hopkins University, USA and Prof. Dinesh Chapagain, Quality Consultant in Nepal. They came first in the case study stream before the Gobindgarh Public School of India and the Irmak Private Primary School, Istanbul, Turkey.

The “Crazy Readers” CAT was represented by Lutchmee Horeel, Priya Huzoorree, Warda Ossenbox, Assiyah Mahomed and Shayma Nunnoo. The other members of the Mauritian delegation were Ms Priya Baligadoo, facilitator “Crazy Readers”, Ms Seengh (Droopnath Ramphul SSS), Ms Bullywon (Dr Maurice Cure SSS), Mr Unnuth (Forest Side SSS) and Ms Beekarry (New Bambous Government School - winner in the primary category for the CATs Convention 2008) and Mr Pem representing the NPCC.

It was an enriching experience for the participants since they had the opportunity to interact with several quality gurus and learn about innovative pedagogical tools that can be used to enhance the teaching and learning process. Most of the speakers stressed on the need to give a human dimension to the concept of quality as well as the necessity to prepare students to become global citizens. Appropriate training programmes can lead the way to Total Quality people and to Quality Education was the message conveyed by the leading quality experts.

The students met their counterparts from several countries including academicians at the Yedetipe University Campus. The team developed a greater sense of responsibility, better communication skills and more self-confidence and self-esteem.
ELIT adapted for Prevocational Students

Following the positive response that the ELIT course received from women citizens of Vacoas/Phoenix and Quatre Bornes, and in response to the demand from the NGO, SOS Poverty, ELIT has been adapted for young prevocational students as the importance and efficacy of ICT in accelerating the process of empowerment across the globe is continuously growing. It is considered imperative that if an individual cannot make use of ICT, the probability that he will lag behind in the path of development is high.

Since a month now, the English Language classes of 20 students of the Muslim Vocational Society have been converted into ELIT classes. The fundamental change is that now on Friday afternoons, their English teacher is not talking about English Grammar but about computer parts and how to navigate on a word document. Using a paragraph from a company’s business strategy document, they are learning to move their cursors around the text. The students are no longer upset with the level of English vocabulary; instead they are searching for the words and highlighting them to demonstrate their skills. Farizad, one of the students, no longer hesitates to speak in English while her friend Sabanah is dreaming of having her own computer at home so as to be able to practice more. Slowly, ELIT is changing the paradigm of these students and is arousing their appetite for learning.

Building Sector Competitiveness through Life-Long Learning: Capacity Building of Small Planters

In the context of trade liberalisation, the agricultural sector is undergoing profound changes. To support the country’s new economic agenda, the National Productivity and Competitiveness Council (NPCC) has, since August 2006, initiated pilot network projects to assist farmers in the transition to high value agricultural product development. They aim at defining:

- potentially new avenues of growth in the sector in terms of new products/services which could eventually link with other sectors;
- new business opportunities; and
- export opportunities for products/services of the sector.

Three pilot network projects - one in the north regrouping litchi producers, a second one regrouping vegetable planters of the eastern region, and a third which regroups low-income onion planters of the south-east region – were launched with the objectives to secure and improve the livelihoods of small scale farmers, assist them to move from a high volume, low value agricultural products to a range of product options that will include higher value, more exclusive products, and help them identify and satisfy niche markets for high value products.

Being an institution that promotes policies and systems to make innovation sustainable and builds models and creates materials to enhance organisational capacity and nurture networks that facilitate learning in support of development goals, the Commonwealth of Learning (COL), an intergovernmental organisation created by Commonwealth Heads of Government encourages the development and sharing of open learning/distance education knowledge, resources and technologies, partnered in the project to incorporate the element of learning for livelihoods, that is life-long learning (L3).

Through the Mauritius Process Oriented Women Entrepreneurship Development (M-POWERED) project, the COL and the NPCC are collaborating to empower the Belle Mare / Trou d’Eau Douce small scale vegetable planters to move to high value agricultural products targeting high-end markets and to adapt technology to effectively design and develop training material to promote self-learning of the small planters as they embark on this new endeavour.

One of the tangible outcomes of the project is the production of a training video on greenhouse construction that captures the essentials of greenhouse construction, greenhouse management and greenhouse crop cultivation that planters can use for self-learning. Other training materials on subjects like basic financial management for farmers are expected to be produced by the farmers themselves to enhance the development of the planters as their businesses grow. Visits abroad to places where planters have successfully adopted the Life-Long Learning (L3) approach to grow their businesses are also scheduled in the course of the project.

Women Empowerment for Poverty Alleviation

Given the harsh realities of single-parent households and the social discrimination that negatively impact them, women constitute the majority of the population living below the poverty line and are often in situations of extreme poverty.

To reverse this situation and encourage women to improve their economic conditions, the NPCC has, with the collaboration of the National Women’s Council, developed a series of workshops on “Empowerment of Women in Decision-making at the Regional Level” for members of women’s associations of the Pamplemousses and Riviere du Rempart regions.

The objective of this project is to mobilize and empower women to participate in a range of economic and social activities that would enable them reach their full potential both at home and at work and hence contribute to help reduce poverty, improve the health conditions of families and communities, and raise literacy and educational levels. Furthermore, the NPCC is operating as the implementation agency of the Special Programme for the Unemployed Women.