#### UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

# Contribution to the CSTD ten-year review of the implementation of WSIS outcomes

Submitted by

MAURITIUS

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Q1: Salutation:	Mr.
Q2: First Name, Surname:	Aslam Sobratee
Q3: Organisation:	Ministry of Tertiary Education, Science, Research & Technology
Q4: Country:	Mauritius
Q6: Which stakeholder category do you belong to?	Government

Q7: To what extent, in your experience, has the "people-centred, inclusive and development-oriented Information Society", envisaged in the opening paragraph of the WSIS Geneva Declaration of Principles, developed in the ten years since WSIS?

Firstly, there is no discrimination as to age or sex in the public sector in Mauritius.

Secondly, a mandatory requirement is aptitude in ICT.

Thirdly, ICT equipment and internet services are made available to officers who require same in their official function.

Q8: How far do you consider the implementation of specific WSIS outcomes to have been achieved?

Implementation of specific outcomes as detailed in the Geneva Declaration of Principles Section A.2 is ongoing.

Q9: How has the implementation of WSIS outcomes contributed towards the development of a "people-centred, inclusive and development-oriented Information Society"?

Information or access to IT and internet is freely available at the workplace for categories or levels of officers as well as equipment which is renewed as and when necessary.

Q10: What are the challenges to the implementation of WSIS outcomes? What are the challenges that have inhibited the emergence of a "people-centred, inclusive and development-oriented Information Society"?

Main challenge is to overcome the computer shyness of more elderly and longer serving officers

### Q11: How are these challenges being addressed? What approaches have proved to be effective in your experience?

Basic training in ICT is provided freely to all officers who require it. There is also insistence on the use of ICT tools.

# Q12: What do you consider the most important emerging trends in technology and other aspects of ICTs which have affected implementation of WSIS outcomes since the Summit? What has been their impact?

Development of ergonomic and user friendly ICT equipment and modern software. Rapid communication between stakeholders for decision making.

### Q13: What should be the priorities for stakeholders seeking to achieve WSIS outcomes and progress towards the Information Society, taking into account emerging trends?

Continue insisting on computer literacy and providing training for those who need it. Continue use and development of state of the art equipment and encourage electronic to reduce reliance on paper.

### Q14: What role should information and communications play in the implementation of the post-2015 development agenda?

Practical implementation of sustainable measures like promoting video conferences to avoid costly and time consuming organisation of meetings with international participants.

### Q15: Please add any other comments that you wish to make on the subject of the review that you believe would be helpful.

- Importance of resource persons or departments with requisite know-how to be emphasized to empower workers/officers

-Encouragement of officers in term of life-long learning with appropriate benefits.

Q16: We would also welcome any documents, reports, etc. that you can forward which you think will provide useful evidence for the review. Please send these to cstd-wsis10@unctad.org. It would be helpful if you could list these in this box, together with any URL which enables access to them on the World Wide Web.

http://www.mrc.org.mu/in-house\_projects/\_e-waste\_research\_programme

#### Information about the respondent

- Name of Institution: The National Computer Board
- **Country**: Mauritius
- Stakeholder Category: Government

1. To what extent, in your experience, has the "people-centred, inclusive and development-oriented Information Society", envisaged in the opening paragraph of the WSIS Geneva Declaration of Principles, developed in the ten years since WSIS?

The Government is determined to harness an Information Based Society and is leaving no stones unturned in its endeavours. Major projects pertaining to bridge the digital divide for an Information Based Society are as follows:

• UNIVERSAL ICT EDUCATION PROGRAMME - Internet and Computing Core Certification (IC3) Course.

The UIEP project has been implemented to introduce the IC3 course with a view of making it the benchmark for digital literacy/proficiency in Mauritius. The IC3 course, which is internationally acknowledged, is of 45 hours duration and is delivered in the computer labs of some 55 State Secondary Schools after school hours on week-days and during weekends.

• UNIVERSAL ICT EDUCATION PROGRAMME PHASE II (Advanced Online Courses)

In, 2010 the Government launched the UIEP Phase II project whereby more than 3,000 online professional IT and non–IT courses are being made available at very interesting prices to all those who complete the IC3 or already have a recognised certificate in IT.

This initiative, which is in line with Government's Programme 2010-2015 to create an I-Mauritius (Intelligent Mauritius), has as main objectives :-

- a) to democratise access to quality content online
- b) to create an adequate pool IT Professionals to drive the growth of the IT Industry
- c) to Promote e-learning

#### • CYBER CARAVAN PROJECT - DEMOCRATISE ACCESS TO ICTS

In view to reach out more people and to further bridge the digital divide, the Government launched the Cyber Caravan project which aims at making IT facilities available in all regions around Mauritius, targeting children, students, unemployed, women, staffs of private organisations, planters, farmers and senior citizens who do not have access to a computer. The ICT trainings are conducted in social welfare centres, community centres and civic associations' premises.

# • COMMUNITY EMPOWERMENT PROGRAMME (CEP) - MAKING INTERNET A BASIC CITIZEN RIGHT

The CEP project has as aim to enable the creation and sharing of information and knowledge for community development, thus empower the citizens of Mauritius in building an information society. It is in line with the Government ambition to build an information society and promote development of online content.

#### • COMMUNITY WEB PORTAL (CWP)

The CWP has been developed with a view to encourage the development of local content and creativity. The CWP is a platform to facilitate the process for the community to make use of ICT to participate in the socio-economic development of the country. Its objectives are to:

- Encourage the development of local content and creativity
- Democratise access to information
- Promoting community development by enabling collaboration and knowledge sharing and facilitating communication.

#### • SETTING UP OF COMPUTER CLUBS ON A REGIONAL BASIS

The purpose of this project is to provide free access to ICT tools and Internet. The project is funded partly by United Nations Development Programme, Microsoft and Mauritius Telecom Foundation.

Computer Clubs contribute to the development of Mauritius by facilitating the democratisation of ICTs in order to contribute in the alleviation of poverty within the community through the use of ICTs and free access to broadband Internet. It also helps in removing the barriers to bridge the "Digital Divide" through democratised access for the whole community.

#### • PUBLIC INTERNET ACCESS POINTS (PIAPS)

In view to accelerate access to ICT infrastructure and Internet, Public Internet Access Points (PIAPs) have been implemented in the 95 post offices around the island. 5 PIAPs are also available in Rodrigues.

#### • THE ICT SKILLS DEVELOPMENT PROGRAMME (ISDP) - REDUCE SHORTAGE OF MANPOWER IN ICT INDUSTRY

The ICT Skills Development Programme (ISDP) is a Government initiative launched in October 2012 to promote training and work placement to cater for the increasing demand of manpower in the ICT/BPO industry. The Training and Work Placement Scheme has been put in place to encourage ICT/BPO companies to offer unemployed youth a work placement for a maximum period of 12 months.

#### • INFOTECH - ICT Exhibition

Infotech is the major annual ICT event organised in Mauritius with a view of creating awareness among the population on emerging technologies and supporting the growth of business opportunities in the ICT sector. It has earned its brand image and reputation over the last 20 editions where some 100,000 visitors visit the event to have a glimpse on the latest ICT technology, exhibitors also offer special rebates on ICT equipment during the event.

#### • ICT EXPO – CONNECTING COMMUNITIES

In view to bring ICT to the door steps of the community, the Government expressed the wish to replicate the Infotech exhibition on a smaller model targeting rural communities where the adoption of ICT may be lagging, thus the rationale for ICT Expo adopted is 'Connecting Communities'

#### • COMPUTER EMERGENCY RESPONSE TEAM - CERT-MU

In view to address issues pertaining to security aspects in ICT, the Government has implemented the CERT-MU which provides information and assistance to its constituents (internet users) in implementing proactive measures to reduce the risks of information security incidents as well as responding to such incidents as and when they occur. The three main goals of CERT-MU are to:

- handle security incidents and monitor security problems occurring within public and private sectors;
- provide guidance to providers of critical information infrastructure to adopt best practices in information security and
- Warn and educate systems administrators and users about latest information security threats and suggest countermeasures by means of information dissemination.

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#### • GOVERNMENT ONLINE CENTRE (GOC)

In line with its objective in putting the people first ideology and bringing people closer to the Government, the Government has set up the GOC which is operational since May 2005. GOC is the centralised data centre to provide Government services to citizens, businesses, government officers and non-citizens abroad.

# 2. How far do you consider the implementation of specific WSIS outcomes to have been achieved.

- As at date, 177,544 individuals have been trained on the IC3 course.
- 780 participants have registered for the different online course packages and 749 registrants have completed their respective online courses, the project was launched in February 2014.
- The Cyber Caravan project has enabled, about 157,279 persons to be initiated in ICT from 2000 till date.
- As at date, a total of 262 Computer Clubs are operational in Mauritius in 23 Youth Centres, 17 Women Centres, 57 Social Welfare Centres, 123 Community Centres, 22 NGOs/Municipal Councils/Village Halls and 20 Elderly Day Care Centres. An additional 12 computer clubs are being set up. So far, 1,046,588 registrations, including recurrent users, have been noted in Computer Clubs and have benefited from the free access to ICT tools and Internet.
- Some 194,664 people have benefitted from the Public Internet Access Points infrastructures.
- As at date, 156 companies in the ICT/ BPO sector 3,516 applicants (3,058 jobseekers and 458 university students) have registered on the The ICT Skills Development Programme (ISDP). A total of 145 ISDP agreements have been signed with 47 companies and 738 jobseekers have been enrolled on the Training and Placement scheme.
- The CERT-MU team has sensitised some 6000 students and 300 teachers, since the past 2 years regarding child safety online measures and precautions. Regular seminars are organised in schools to create more awareness on such issues.
- The electronic filing of Tax Returns (e-filing) is an e-service launched in February 2008 in a batch of 48 new e-services. This service enables citizens to submit their tax returns online to the Mauritius Revenue Authority (MRA). In 2011 50,503 people filed their returns electronically and people are getting more convergent towards the e-filing system.

### **3.** How has the implementation of WSIS outcomes contributed towards the development of a "people-centred, inclusive and development-oriented Information Society"?

- As at end of 2011, the number of Internet subscriptions attained a figure of 370,000, increasing by 30% over the level as at end of 2010. When compared to year 2008, the rise is nearly twofold (86% increase) with an annual increase of 23%.
- The number of mobile Internet subscriptions was 236,800 (share of 64% of total internet subscriptions) as at end of 2011, in comparison to 104,800 (share of 52.5%) as at end of 2008. The annual average increase over the period was 31%.
- The number of broadband Internet subscriptions reached 279,800 in 2011 (accounting for over 75% of total number of Internet subscriptions) from 157,300 in 2008 (increase of 78% over 2008 with an annual average rise of 21%). The change from 2010 to 2011 was 8.2%.
- The number of Fixed broadband Internet subscriptions reached 118,200 as at end of 2011 with a share of 42% compared to a share of 33% in 2008. Such subscriptions rose by two and a quarter fold over 2008. The number of mobile broadband Internet subscriptions reached 161,600 (share of 58%) as at end of 2011.
- The number of mobile-cellular telephone subscriptions has continuously increased over the years to reach 1,294,100 as at end of year 2011, with a ratio of 100.4 per 100 inhabitants compared to 93 for 2010; the rise in subscriptions with respect to 2010 was 8.7%. The annual average increase in mobile phone subscriptions over the period 2008-2011 was 7.8%. The share of the prepaid mode of payment was over 92% for both years 2010 and 2011. The total number of mobile internet subscriptions for the year 2011 was 236,800, with a share of 32% for low and medium speeds and thus, 68% for broadband speeds.
- Cellular mobile telephone, access by households which stood at 82.8% in 2008, rose to 87.5% 2010 (5.7% increase). The availability of computer in households has increased to 37.7% in 2010 from a level of 29.9% in 2008 (nearly 8 percentage points rise since 2008). Internet access rose to 29% in 2010 from 20.2% in 2008 (a rise of 44%) Internet connection to households which was at 20.2% in 2008 moved to 29% in 2010 to attain to 31.7% in 2011, increasing by 57% over the level of 2008. Considerable decrease in Internet prices over the years has played an important role in the uptake of ICT facilities, especially for households. Data for 2008 and 2010 refer to Continuous Multi Purpose Household Survey (CMPHS).
- 41.7 % of persons aged 12 years and above have been using computers during Year 2010 as compared with 35.4 % for 2008 and 31.0 % for 2006. Over the years, people are using computers more and more.
- The level of Internet access for primary schools has witnessed dramatic improvements from a mere 6% in 2008 to 58.03% in 2011. The percentage of Internet access for secondary schools has nearly reached its plateau with 94% in 2008 to 96% in 2011.
- There are currently 17 Computer Clubs operational in women centres. 54 Net PCs have been installed in the women centres and that more than 29,000 women have already made use of these free facilities between 2009 and 2011.
- Regarding ICT Development Index, Mauritius with a score of 4.18 in 2011 was ranked 74<sup>th</sup> compared to an index of 3.95 and ranked 70th in 2010. The country improved its index by 5.8% (though losing 4 ranks) and ranked second on the African Continent, after Seychelles. South Africa and India were ranked 91st and 119th in 2011, with indices of 3.42 and 2.10 respectively.

4. What are the challenges to the implementation of WSIS outcomes? What are the challenges that have inhibited the emergence of a "people-centred, inclusive and development-oriented Information Society"?

• The need for continued extension of access for people with disabilities and vulnerable people to ICTs,

## 5. How are these challenges being addressed? What approaches have proved to be effective in your experience?

• Public and Private sector partnership to drive projects.

# 6. What do you consider the most important emerging trends in technology and other aspects of ICTs which have affected implementation of WSIS outcomes since the Summit? What has been their impact?

- The development and implementation of national eHealth strategies, focusing on implementing a sound enabling environment, integrating ICTs to support the priorities of the health sector, and providing reliable, affordable and sustainable connectivity for health services, health systems and the general public to improve the health of all people.
- Promoting teleworking programs for working from a distance, strengthening collaborative work by using intranet and extranet, and developing regulation and standards of teleworking to legitimate labor conditions in terms of social benefits, job stability, training and working satisfactory conditions, among others.
- E-environment Promote the use of ICT equipment in weather forecasting electronic dissemination and early warning systems to increase preparedness against natural hydrometeorological related disasters.

# 7. What should be the priorities for stakeholders seeking to achieve WSIS outcomes and progress towards the Information Society, taking into account emerging trends?

- Emphasis should be made on the sharing of existing expertise and best-practice solutions between all stakeholders and creating replicable and sustainable ICT projects.
- Promoting a Digital Economy, ensuring equal opportunities for all in creating and providing online services and promoting e-commerce and international free trade while addressing the tax challenges of the digital economy.

## 8. What role should information and communications play in the implementation of the post-2015 development agenda?

- Promote gender equality for a better participation of women in the spheres of ICT.
- Encourage youngsters to have a larger share of contribution in the socio-economic spectrum through the use of enhanced ICT tools and foster more job creation and promote Technopreneur culture.