CLOSING THE DIVIDE: DIGITAL EMPOWERMENT FOR RURAL YOUTH IN AFRICAN, CARIBBEAN, AND PACIFIC NATIONS

The effective and appropriate deployment of Information and Communication Technologies (ICT) can greatly facilitate better living conditions for people in the rural areas of countries in Africa, the Caribbean and the Pacific (ACP). ICTs can help make life more attractive especially for young people by helping to bridge the gap between the technologically-advanced West and ACP countries where only one out of 130 individuals has access to a personal computer. Likewise, the divide between technology uptake in the urban and rural areas of ACP countries can also be closed.

The most important tool to be harnessed in closing the divide is the implementation of a comprehensive but region-sensitive ICT policy. The main aim should be the provision of cheap, fast and eventually free access to the Internet and core ICTs. The formulation and implementation of this policy must include all stakeholders including the government, the private sector, international donors (e.g. Connectivity Africa Initiative, Africa Commission) and the local people for whom the policy is intended. The involvement of all concerned parties will ensure ownership, stakeholder buy-in, effectiveness and sustainability.

A critical measure for building capacity is the utilization of the wealth of untapped expertise among Africans, Caribbeans, and Pacific Islanders in the Diaspora, particularly in the private sector. As a testimony to the validity of this assertion, UNIFEM launched the Digital Diaspora initiative to build strategic partnerships between African IT entrepreneurs in the Diaspora and Africa-based women's organizations and business associations.

The best way to provide the basic infrastructure required for real time access by the local population is the utilization of low-cost and made-for-ACP IT equipment. Some of the very affordable systems that have been developed for use include the Simputer, KhayaComputer, Village PDA, and Solo. Meanwhile, promising technologies include digital satellite radio service which already have pioneers like First voice and WorldSpace working in the ACP. Technologies have also been developed to track animal behaviour via the use of GPS and preserve precious artifacts and fossils in a visual library/interface.

However, the field of ICTs which holds the greatest promise for rapid socio-economic development of rural economies in the ACP states is (the use of) Wireless Telecommunications. Technologies such as Wireless Fidelity (*WiFi*), *WiMAX* and the Voice over Internet Protocol (*VoIP*) (and on a smaller scale, *VSAT* – the Very Small Aperture Terminal system), have the potential to address real developmental concerns and provide scalable connectivity solutions.

WiFi can be described as a high-bandwidth local area network that uses high frequency radio signals to transmit and receive data over short distances while *WiMAX* involves the use of microwaves for the wireless transfer of data. *VoIP* is a protocol that converts

telephone) calls to data and carries them on any data network – the most common carrier being the Internet. At a high level, the strategic advantages of *VoIP* and *WiFi/WiMAX* platforms are that they are cheaper and relatively easier to implement (due to the fact that both voice and data can be combined on a single, cost-effective network) and cheaper than fixed-wire technologies. These technologies also provide efficient data network usage, high bandwidth connections and lowered call costs.

ACP countries stand to benefit the most from the uptake of *WiFi* and *VoIP*. This is because most of these countries especially the rural areas either have no Plain Old Telephone Service (POTs) connections or the geography makes it difficult to install cable transmission networks. As UN Secretary-General Mr. Kofi Annan stated, "It is precisely in places where no infrastructure exists that *WiFi* can be particularly effective, helping countries to leapfrog generations of telecommunications technology and infrastructure that empower their people"

The deployment of *WiFi* or *WiMAX* and *VoIP* would enhance village life for young people by providing them with *Rural Internet Connectivity*. Rural connectivity is usually implemented through the establishment of Community Access Points or Telecentres such that every household is within easy reach of a telecentre. Rural Internet connectivity provides young people with the means to communicate via e-mail, chat rooms, bulletin boards, etc with their friends and people from all over the world as well as stay in touch with life in the urban areas. Hence there is no need for them to migrate to cities. They can also carry out research and participate in Web-based games and entertainment. They may even find love on the Net.

Another benefit of connectivity is *E-Learning* or long distance education. Young people in the rural areas no longer need to leave their jobs or families in order to pursue vintage educational opportunities in the cities or overseas. There are a number of institutions (e.g. ITrain, CyberSchoolBus) that provide completely non-residential educational programmes which may be accessed via the Internet.

E-Governance initiatives such as the filing of tax returns, payment of levies, and application for licenses (e.g. ASVCUDA), and citizen feedback/contribution to policy implementation via the internet can have the impact of making people living in the rural areas feel that they are a part of the government decision-making process – thus empowering them. On the other hand, the relevant authorities can have easy electronic access to developmental and other statistical data which can in turn help the government concerned to make better plans.

The *Rural Economy* stands to benefit from the uptake of ICTs. Local industries such as agriculture, farming, fishing and cottage handicraft can benefit from access to information on market trends, as well as data on distant and future markets. Internet connectivity makes possible the buying and selling of locally produced goods electronically. Digital fund transfers and electronic cash remittances are also facilitated.

E-Health initiatives include the provision of *Telemedicine* which is the use of electronic communications software for the exchange of medical and health information from site to site in a rural area. Furthermore, it is now possible to use handheld devices such as cell phones and Personal Digital Assistants (PDA's) for health purposes (e.g. SATELLIFE PDA project).