Knowledge Management in the Public Sector

An Online Presence as a Knowledge Sharing and Capturing Tool

Regional Knowledge Economy Initiatives – getting connected, staying informed, getting involved

Towards Caribbean Knowledge Networks

Examples of Caribbean Knowledge Sharing, Knowledge Networks and Communities of Practice

Information and Communications Technologies for Development: The Case of Agriculture
The Economic Commission for Latin America and the Caribbean (ECLAC) is one of five regional commissions of the United Nations Economic and Social Council (ECOSOC). It was established in 1948 to support Latin American governments in the economic and social development of that region. Subsequently, in 1966, the Commission (ECLA, at that time) established the subregional headquarters for the Caribbean in Port of Spain to serve all countries of the insular Caribbean, as well as Belize, Guyana and Suriname, making it the largest United Nations body in the subregion.

At its sixteenth session in 1975, the Commission agreed to create the Caribbean Development and Cooperation Committee (CDCC) as a permanent subsidiary body, which would function within the ECLA structure to promote development cooperation among Caribbean countries. Secretariat services to the CDCC would be provided by the subregional headquarters for the Caribbean. Nine years later, the Commission’s widened role was officially acknowledged when the Economic Commission for Latin America (ECLA) modified its title to the Economic Commission for Latin America and the Caribbean (ECLAC).

Key Areas of Activity

The ECLAC subregional headquarters for the Caribbean (ECLAC/CDCC secretariat) functions as a subregional think-tank and facilitates increased contact and cooperation among its membership. Complementing the ECLAC/CDCC work programme framework, are the broader directives issued by the United Nations General Assembly when in session, which constitute the Organisation’s mandate. At present, the overarching articulation of this mandate is the Millenium Declaration, which outlines the Millenium Development Goals.

Towards meeting these objectives, the Secretariat conducts research; provides technical advice to governments, upon request; organizes intergovernmental and expert group meetings; helps to formulate and articulate a regional perspective within global forums; and introduces global concerns at the regional and subregional levels.

Areas of specialization include trade, statistics, social development, science and technology, and sustainable development, while actual operational activities extend to economic and development planning, demography, economic surveys, assessment of the socio-economic impacts of natural disasters, climate change, data collection and analysis, training, and assistance with the management of national economies.

The ECLAC subregional headquarters for the Caribbean also functions as the Secretariat for coordinating the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. The scope of ECLAC/CDCC activities is documented in the wide range of publications produced by the subregional headquarters in Port of Spain.

Focus: ECLAC in the Caribbean is a publication of the Economic Commission for Latin America and the Caribbean (ECLAC) subregional headquarters for the Caribbean/Caribbean Development and Cooperation Committee (CDCC).

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Knowledge Management, ICT and Innovation

As Caribbean countries face the challenges brought on by the changing economic climate of the 21st century, the knowledge economy becomes even more critical to repositioning itself in the global order. In particular, countries have to improve their national competitiveness and ensure that education systems meet the new demands for global competitiveness. Moreover, citizens must have equality of opportunity in order for economies to fully benefit from the most valuable resource of a country – its human capital.

This changing environment has brought knowledge management to the forefront. Managing knowledge is not an easy task. It is inherently part of all individuals, sectors, communities and organizations in a country making it difficult to unlock the knowledge held, and enable its sharing while, at the same time, fostering the creation of more.

Knowledge management, although normally associated with the private sector, it also applicable to the public sector where it enhances the processes, products and services, to ensure better service delivery and general good governance and therefore greater prosperity for a country.

Through new Internet and social media technologies as well as the increasing proliferation of mobile technologies in the Caribbean, it has become possible for the public sector to be in constant and immediate contact with the recipients of products and services, enabling it to build better services and increase its capacities and so become an active and important contributor to Caribbean knowledge economies.

The role of information and communication technologies (ICT) cannot be overlooked when discussing knowledge management as it, in the new digital age, enables knowledge management by providing systems that can be used, but also to connect knowledge resources (people), information, data and processes over vast distances to each other, a necessity for innovation in all industries and sectors, such as agriculture, to ensure sustainability.

In order to ensure the successful managing of knowledge, it is important for those in decision-making and managerial positions within the public sector to have clear objectives on what is to be achieved, and to make that part of strategic frameworks at the planning phase.

Strategies and plans, such as the 2010 – 2014 CARICOM eGovernment Strategy are essential in order to ensure knowledge management in the Caribbean, is customized to local conditions to deliver local solutions to local situations.

Specifically for ECLAC, we are modernising our engagement with our stakeholders and partners under this new paradigm. By the middle of 2014, a Commission-wide digital repository for ECLAC publications will become available online and will allow stakeholders to search the entire Commission’s collection of publications since inception. Additionally, as our Outreach Strategy for the office in 2013 and beyond takes shape, expect to see the quarterly Focus issues delivered by electronic media through email and on our website, supported by blogs, Facebook, Twitter and other social media.

We look forward to greater interaction with all our stakeholders as we together work towards the sustainable development of the Caribbean region.
KNOWLEDGE is a primary ingredient in the recipe for innovation needed for sustained economic growth and social development. While knowledge management has largely been applied to the competitive advantage of private sector organizations, it can also be applied to improving the way that the public sector works. One such way is by focusing on the use of knowledge to empower front line staff in their delivery of services to citizens.

RAPID advances in information and communications technology (ICT) over the past decade have made citizens more demanding and more knowledgeable about what should be provided by government. As a consequence, the expectations that citizens have of governments as well as their perceptions of them have changed. This has led to an increased demand for greater transparency and good governance from the public sector.

It has therefore become necessary for the public sector to capture, retain and share knowledge and information with itself, its people and other sectors, and to work towards improving the relationship between itself, citizens and stakeholders.

These demands on the public sector give rise to the need for incorporating knowledge management in its strategic objectives, as well as its daily activities to ensure efficiency and effectiveness that will enhance national economic development and the general well-being of citizens. Incorporating knowledge management in the work of the public sector allows the sector to be an important contributor to the knowledge economy.

The positive impact that knowledge management could have on the public sector is visible in many of its activities, such as decision-making with regards to programme, regulation and policy design and implementation, monitoring and evaluation, and service delivery. Incorporating knowledge management processes and activities in the public sector makes it possible for the actors in the sector to capture knowledge from citizens, industry and other stakeholders as well as create more knowledge, based on their own experiences. This knowledge store allows for the design of plans, regulations, policies and services that are closely related to the needs of the citizenry, private enterprise and the development goals of the country, and therefore exponentially increases the success of such measures, while at the same time builds trust between the public sector, its clients and stakeholders.

Knowledge management processes and activities however also make it possible for the public sector to better share knowledge and information with the citizenry and stakeholders, therefore building their capacity to conduct business.
This is specifically true of front-line service delivery where the public sector directly engages with citizens, and public and private industries. The advent of ICT has provided the public sector with the means to provide electronic services, today generally referred to as e-government. Initially the focus was on providing information, such as contact information for specific departments, guidelines and regulations for applications of certificates, national documentation or business licenses, as well as the automation of existing paper-based services. In this regard, electronic versions of forms that could be printed and still needed to be submitted in person, by mail and later by e-mail, were made available.

As the capabilities of ICT grew and citizens became more knowledgeable and familiar with these technologies, their demands on the service delivery of the public sector increased and fully digital services started to appear. This means that citizens and industry no longer need to print and manually complete forms to request documents and information from government, but do it digitally by completing online forms and submitting it directly to the responsible department or section.

The advance of digital public services highlights the need for knowledge management. In order to effectively and efficiently deliver and continuously improve services, while at the same time guarantee the confidentiality of the client and stakeholders, the public sector will need to become more responsive to the following:

1) Needs of their clients and stakeholders to expectations about service and service delivery;
2) Abilities of clients and stakeholders in the use of ICT, and also the accessibility of these technologies;
3) Processes and hierarchies that support the delivery of the services;
4) Needs for and methods of distributed services that stretch across large geographic areas to ensure that all citizens and stakeholders have access;
5) Regulations and policies that guide services and the constraints that they may impose; and
6) Abilities of public sector staff to use ICT.

Knowledge management processes such as knowledge capture, creation and sharing allow the public sector to determine the best options to create e-government services.

Through knowledge capture the public sector can “listen” to their citizens, not only about their needs and the challenges they experience with service delivery, but also their ideas on the types of services and the ways they can be delivered. Capture also allows for the assessment of government service processes and the methods by which information is generated through them. This in turn generates additional information via the way information flows through and how knowledge is created by them, that gives rise to better services and leads to the identification and development of other services not previously considered. By capturing, sharing and creating knowledge, the public sector builds a knowledge base that could be used in other areas of development, not only services, but also decision-making, policy development, regulation formulation and project planning.

Building the understanding, skills and capabilities of public sector staff and officials are also important. Incorporating knowledge sharing processes that allow staff to share their experiences and skills with each other, builds a stronger and more knowledgeable work force which is an important component in the delivery of effective and efficient services.

Employing knowledge management throughout the public sector and ensuring that both citizens and civil servants have access and can share knowledge and interact with each other, has become essential for national competitiveness. As the knowledge economy becomes even more critical to the Caribbean’s sustainable development, the Caribbean’s public sector of the 21st century should improve its service delivery by embracing new technologies and processes for knowledge management.
ADVANCES in ICT and social media have heralded new ways to connect people, to share expertise and experiences and to learn from others over great distances. More than ever before, knowledge and information are more accessible to people and this accessibility is growing rapidly. In the same way that these technologies have revolutionised the life of the individual person, so it can impact the public sector and the way it does business. The question, however, is whether the potential that information and communications technologies (ICT) offer is being realised by the sector?

A STUDY by the Caribbean Knowledge Management Centre entitled “Knowledge management in the public sector: an online presence as a tool for capture and sharing”, investigated the use of online technologies by development agencies in the Caribbean specifically for knowledge capture and sharing. The purpose was to determine whether organisations in the subregion use Internet technologies to their full potential by creating an all encompassing “online presence” or do they hold true to the more traditional uses.

The checklist has three broad categories looking at the knowledge presented, captured and shared via Internet technologies. These three categories were divided into 25 subcategories. In total the checklist poses 73 questions to help public and private organisations, as well as individuals to determine if they are truly sharing and capturing knowledge and to consider these areas in future modifications to their online presence.

The study found that most development agencies still use Internet technologies primarily for information dissemination and while a few have embraced social media technologies, the use thereof is limited and sites are infrequently updated. This is unfortunate, as the optimal use of Internet technologies can enhance the work of organisations as they can reach those in need faster, and in turn learn from recipients, thereby adding skills, expertise and understanding to the organisation’s arsenal that can be utilised in other projects or locations.

Making effective and efficient use of these technologies also provides the general public with a “voice”, a chance to participate in decision-making processes that lead to policies and regulation formulation that can affect their daily lives.

While affordable access and performance varies in the subregion, mobile

1. Lize Denner and Tricia Diaz, "Knowledge management in the public sector: an online presence as a tool for capture and sharing" (LC/CAR/L.351), Studies and Perspectives - ECLAC subregional headquarters for the Caribbean, No. 20, Santiago, ECLAC, 2011.
Internet technologies are becoming more available, less expensive and more familiar, especially to the 18-34 age groups (that is, the age groups with the country’s future government and industry leaders).

These are essential components for developing countries where funding and expertise are not necessarily available for the implementation of complicated knowledge management systems.

Internet technologies should not only be viewed as the domain of private or commercial industries, but should form a part of the communication, information and knowledge strategies of the public sector. This will enable the government to tap into an important part of the youth sector of its citizens, and also citizens that increasingly prefer using the Internet via mobile technologies.

It is therefore essential that the public sector take the time and put in the effort to develop, implement and manage their online presence so that they can interactively and continuously share knowledge with and capture knowledge from clients and stakeholders.

The complete report and checklist is available online at:  
http://bit.ly/1o97zy9

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### Connecting to Citizens with Facebook

How important is Facebook for the public sector in reaching its citizens? The table below shows that in many countries, at least one quarter of the population are Facebook users and in a few countries, this number is very close to or exceeds half of the population. Based on this data, Facebook can be an effective and free medium for the public sector to connect directly or indirectly with citizens.

<table>
<thead>
<tr>
<th>Country</th>
<th>Population</th>
<th>Total Facebook Users</th>
<th>Penetration of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anguilla</td>
<td>13,254</td>
<td>6,460</td>
<td>48.74</td>
</tr>
<tr>
<td>Antigua and Barbuda</td>
<td>86,754</td>
<td>29,900</td>
<td>34.47</td>
</tr>
<tr>
<td>Aruba</td>
<td>71,566</td>
<td>53,520</td>
<td>74.78</td>
</tr>
<tr>
<td>Bahamas</td>
<td>301,790</td>
<td>168,700</td>
<td>55.9</td>
</tr>
<tr>
<td>Barbados</td>
<td>285,653</td>
<td>121,380</td>
<td>42.49</td>
</tr>
<tr>
<td>Belize</td>
<td>314,522</td>
<td>79,220</td>
<td>25.19</td>
</tr>
<tr>
<td>British Virgin Islands</td>
<td>21,730</td>
<td>9,540</td>
<td>43.9</td>
</tr>
<tr>
<td>Cuba</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dominica</td>
<td>72,813</td>
<td>24,280</td>
<td>33.35</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>9,823,821</td>
<td>2,822,120</td>
<td>28.73</td>
</tr>
<tr>
<td>Grenada</td>
<td>107,818</td>
<td>28,160</td>
<td>26.12</td>
</tr>
<tr>
<td>Guyana</td>
<td>748,486</td>
<td>138,060</td>
<td>18.45</td>
</tr>
<tr>
<td>Haiti</td>
<td>9,648,924</td>
<td>423,820</td>
<td>4.39</td>
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<tr>
<td>Jamaica</td>
<td>2,847,232</td>
<td>685,540</td>
<td>24.08</td>
</tr>
<tr>
<td>Montserrat</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Netherlands Antilles</td>
<td>??-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>3,916,632</td>
<td>1,281,380</td>
<td>32.72</td>
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<tr>
<td>Saint Kitts and Nevis</td>
<td>49,898</td>
<td>22,240</td>
<td>44.57</td>
</tr>
<tr>
<td>Saint Lucia</td>
<td>160,922</td>
<td>57,920</td>
<td>35.99</td>
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<tr>
<td>Saint Vincent and the Grenadines</td>
<td>104,217</td>
<td>39,020</td>
<td>37.44</td>
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<tr>
<td>Suriname</td>
<td>492,829</td>
<td>106,280</td>
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<td>Trinidad and Tobago</td>
<td>1,228,691</td>
<td>488,240</td>
<td>39.74</td>
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<tr>
<td>United States Virgin Islands</td>
<td>108,708</td>
<td>4,160</td>
<td>3.83</td>
</tr>
</tbody>
</table>

Regional Knowledge Economy Initiatives — getting connected, staying informed, getting involved

THE effectiveness of the knowledge economy depends on having the proper policies, expertise, technology infrastructure, networks and libraries. In the region, several initiatives have been called into action to support the development of the knowledge economy with mandates ranging from those that facilitate networking to those that focus on strategies for developing networks.

THESE initiatives play a crucial role in encouraging cooperation for sustainable development and the provision of frameworks and foundations for collaboration for regional and subregional development in Latin America and the Caribbean. This article identifies initiatives that are currently active in the Caribbean.

What is a "digital divide"?
A digital divide is an economic inequality between groups, broadly construed, in terms of access to, use of, or knowledge of information and communication technologies (ICT). The divide within countries can refer to inequalities between individuals, households, businesses, and geographic areas at different socio-economic and other demographic levels, while the divide between countries is referred to as the global digital divide, which designates nations as the units of analysis and examines the gap between developing and developed countries on an international scale.

Conceptualization of the digital divide is often as follows:

- Subjects of connectivity, or who connects: individuals, organizations, enterprises, schools, hospitals, countries.
- Characteristics of connectivity, or which attributes: demographic and socio-economic variables, such as income, education, age, geographic location.
- Means of connectivity, or connectivity to what: fixed or mobile, Internet or telephony, digital TV.
- Intensity of connectivity, or how sophisticated the usage: mere access, retrieval, interactivity, innovative contributions.
- Purpose of connectivity, or why individuals and their cohorts are (not) connecting: reasons individuals are and are not online and uses of the Internet and ICT.

World Summit on the Information Society

One of the chief aims of the World Summit on the Information Society (WSIS) is to bridge the global digital divide separating rich countries from poor countries by spreading access to the Internet in the developing world.

The WSIS Forum 2013, themed “Towards Knowledge Societies for Peace and Sustainable Development” represents the world’s largest annual gathering of the ‘ICT for development’ community. This forum will provide structured opportunities to network, learn and participate in multi-stakeholder discussions and consultations on WSIS implementation.

eLAC – Building inclusive and innovative digital societies in Latin America and the Caribbean

eLAC is a plan of action for Latin America and the Caribbean, according to the Millennium Development Goals and WSIS, with a long-term vision towards 2015, which identifies ICTs as tools for economic development and social inclusion. ECLAC acts as the Technical Secretariat of this regional action plan, monitoring advances, publishing information bulletins and exchanging information among the stakeholders. The IV Ministerial Conference on Information Society in Latin America conference set for Uruguay on 3-5 April 2013.

CARICOM ICT4D

ICT4D is a programme in the Directorate of Trade and Economic Inte-
sustainable development. The broad regional strategic objectives are:

1. To fully establish modern regional regulatory and open telecommunications infrastructures with affordable networks using converged technologies, to provide affordable and ubiquitous access.

2. Build a digital community culture and increase the value and volume of the regions’ trained ICT workforce that can create with, develop and use ICT to improve lifestyle and add personal and economic value.

3. To manage and use ICT to demonstrate good governance and increase efficiency in operations.

4. To establish a culture of innovation and quality, and to enable sustainable production of regional digital goods and services.

5. To guide businesses and governments to use ICT for sustainable growth and support social development objectives through partnerships that use networked technologies.

**Broadband Connectivity through CANTO**

The mission of the Caribbean Association of National Telecommunications Organizations (CANTO) is “to facilitate the development of ICT solutions for the benefit of members and other stakeholders in the Caribbean region”. Their vision is “To become the leading authority in shaping information and communication in the Caribbean”. CANTO’s 120 plus strong membership includes Caribbean telecommunications operators and local and international suppliers in the ICT field.

Eighteen Caribbean ICT ministers will take part in the Minister’s Round Table on building a SMART Broadband Community in the region at CANTO 2013 on 14-17th July, 2013.

**BIIPAC Project**

CANTO has received financing from the Inter-American Development Bank (IDB) for the “Broadband Infrastructure and Public Awareness in the Caribbean” (BIIPAC) Project. The main objective of this project is to support the design of national broadband strategies in the region and to identify the regional aspects that need to be incorporated into these strategies in order to promote regional coordination. The project was officially launched in February 2013 and will finance the following:

- Broadband Diagnosis and Infrastructure Maps – Mapping of broadband infrastructure and the current infrastructure from other utilities; Identification of country-specific socio-demographic variables and classification of geographic areas; Preparation of a document with public policy recommendations.

**Connect the World, the Americas and the Caribbean**

Connect the World aims to mobilize human, financial and technical resources for the implementation of the connectivity targets of WSIS and the regional initiatives adopted by member states at the ITU World Telecommunication Development Conference.

The overall objective of Connect Americas was to mobilize the human, financial and technical resources required to close ICT gaps in the region. The Connect Americas Summit in 2012 offered a venue for leaders from the public and private sectors as well as international and regional financing and development agencies to network face-to-face and forge new partnerships. It was preceded by a preparatory process during which ICT development project and project holders were identified, as well as partners and donors willing to contribute to the implementation of the selected projects, with a view to enhancing the deployment of ICT networks, applications and services within the region.

Connect the Caribbean was the Caribbean’s response to the International Telecommunications Union’s
Towards Caribbean Knowledge Networks

KNOWLEDGE networks can be valuable mechanisms towards development in the Caribbean by facilitating the sharing of lessons learnt, best practices and strategies for development across countries in the region. However, greater effort must be put into connecting these dispersed knowledge resources so that they can be harnessed as a valued source contributing to building the Caribbean knowledge economies.

EXPERTISE, skills, experiences, understandings and capabilities aid development, not just by informing decision-making, but also by providing ideas for actions and activities that can be taken.

Due to their size, and economic and environmental vulnerabilities, Caribbean States face special challenges when working towards their economic, social and environmental development goals. These challenges have contributed to the creation of knowledge gaps, and knowledge that is already available is located in isolated pockets, throughout the Caribbean. Migration of skilled persons compounds the issue, thereby removing much needed knowledge to beyond the traditional borders of the subregion.

It is necessary to connect these dispersed knowledge resources so that they can be used to contribute to the development of the Caribbean at national and Subregional levels.

Knowledge networks are tools that can connect the existing skills, expertise, experiences and understandings accessible and create new ones to move towards greater development in the Caribbean. The purpose is not only to enable the flow and sharing of established knowledge, but also to create new knowledge and ensure the application thereof through the implementation of policies and strategies.

Connecting these knowledge resources to knowledge networks in the Caribbean also provides opportunities for the subregion to come in contact with new ideas, skills and understandings, that, when combined with locally held ideas, skills, expertise and experiences, result in the creation of local solutions to local challenges.

Employing knowledge networks that rely on the collaboration of government with civil society and the general public, provide role players with a sense of importance and usefulness, because they feel that their opinion and ideas matter, that they can enhance the general development programmes of their country and subregion, and have better control over their own individual development. Networks, therefore, have the potential to aid trust-building between the role players, which is needed to drive the development of the Caribbean.

The knowledge gained through membership in a knowledge network could be employed by Caribbean-based organizations in their daily activities and result in the creation of better products and processes. Through knowledge networks, it is therefore possible to strengthen local industries and communities. The improvement of industries and communities will increase their economic success which in turn, will positively impact both economic and social development of their country.

For example, rural communities hold substantial indigenous knowledge that will be lost if knowledge networks are not adopted to suit these communities. The establishment of community centres and development centres to preserve and use this knowledge, in tourism for instance, can both help development and strengthen communities in the subregion.

Some barriers to realising the development of knowledge networks in the Caribbean do exist. These include...
Examples of Caribbean Knowledge Sharing, Knowledge Networks and Communities of Practice

Caribbean ICT stakeholders
Virtual Community (CIVIC)

The Caribbean ICT Virtual Community (CIVIC) is a permanent virtual forum of Caribbean ICT stakeholders. It is a venue for sharing information, holding discussions, networking and linking ideas, actors, projects or initiatives on ICTs and development in the Caribbean. It also aims to contribute in the building of a common vision/perspective on ICTs, and to promote a Caribbean strategy and/or regional Caribbean-wide actions.

ICT Pulse

ICT Pulse was created to discuss topical ICT issues from a Caribbean perspective. Apart from a few technical specialists, most people, even some who work in the industry, are not aware of nor understand the developments that are occurring in the ICT space. ICT is a broad area, covering topics such as computing, networking, telecoms, and broadcasting. Hence it is possible for a person to be quite versed in one subject but not fully appreciate key developments in other areas and how they might affect his/her area of interest. Alternatively, persons may have an interest in ICT and require a high-level understanding of pertinent issues without being unduly technical. There might be a wish to gain a broad understanding of ICTs, but more importantly, to have an appreciation of possible implications to the Caribbean region. Topics that ICT Pulse explores include telecommunications, broadcasting, computing, networking, content-related issues, regulation, new technologies and media, and ICT4D.

Caribbean Leadership Project (CLP)

The CLP is a seven-year, CAD$20 million project, funded by the Canadian International Development Agency to support the leadership and economic development training needs of regional and national public sectors in 12 CARICOM countries. These are: Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago. The project also targets key regional institutions which play a pivotal role in advancing regional integration and economic development.

The Canada School of Public Service is the executing agency for CLP, while the Regional Project Office is hosted by the Cave Hill School of Business / University of the West Indies in Barbados. It is expected that as a result of this initiative, there will be greater collaboration and knowledge sharing within and across countries for the development and implementation of strategies to promote and sustain excellence in the public services of the region.

Caribbean Knowledge and Learning Network (CKLN)

The Caribbean Knowledge and Learning Network (CKLN) is an inter-governmental agency of the Caribbean Community, CARICOM, with responsibility for the development and management of a high capacity, broadband fiber optic network called C@ribNET, connecting all CARICOM member states.

Virtual Library for the Caribbean

The aim of the Virtual Library for the Caribbean (VLC) is for the organisation and preservation of materials in collaboration with national and public library systems, archives, museums to provide information resources for Caribbean national research and education networks (NRENs) and international researchers.

The VL will set the foundation for establishing a common virtual space for the Caribbean to share resources that will encourage the development of new knowledge and increase the region's contribution to the world market to include knowledge creation.

There are public and college libraries, museums, and archives of specialised resources, in all of the CARICOM member states. There are problems of ageing and deterioration of paper based information which could be lost to the region forever. The development of a virtual library will not only link all the libraries, museums and archives in the region through national and regional research and education networks, but will preserve the history and cultural heritage of member states.

The ability to share the cost of resources as a result of the establishment of a regional research and education network, now makes the establishment of a Caribbean Virtual Library feasible.
Information and Communications Technologies for Development: The Case of Agriculture

In the agricultural industry, access to information and communications technologies (ICTs) is the lowest of all occupational categories. This is largely due to an absence of relevant and robust policies and institutions governing the usage and adoption of ICTs in the industry, and secondarily, due to the complexity arising from social demands and market competitiveness which affects the ICT adoption process in the agricultural business.

ICTs have an important role to play in agriculture. The information available and disseminated via these technologies provides valuable input in planning and other activities of those in the industry. Information on changing weather patterns, best planting times, and crop and animal diseases are essential to ensure the sustainability of the sector.

Technologies that assist with supply change management, and market analysis make it possible for those in the sector to better provide the food security needs of communities, countries and regions, while at the same time increasing their own income from better sales.

The benefits of the use of ICTs in the agriculture sector is, however, still difficult to realise. Limitations exist on both the demand and supply sides of technology. On the supply side, the availability of high quality connections and, in particular, broadband access, is likely to be the most significant challenge retarding ICT adoption in the typical rural agricultural business. On the demand side, training and education for ICT usage is the major obstacle to adoption of ICTs.

At the same time, agriculture is not a priority sector in national strategies for digital development. It is therefore extremely important that governments pay closer attention to and account for the agricultural industry in national policies for ICT adoption. Shared access centres are the most important mechanism for ICT usage in rural communities and therefore public policies must include this channel in digital strategies, not only for agriculture, but also for the larger rural population. Training, provision of information, extension services and sponsored digital services are just a few of the issues needing new policies.

Within the public institutions that service the agricultural industry, there is also an adoption challenge related to integration of ICT in the services that are provided by these institutions. Because ICTs are not included in the outward services to the industry itself, but rather only used for the internal services within the institutions, the industry does not benefit from the improvements and advantages that ICT can bring to the agricultural business.

In the Caribbean the need for ICTs and e-government services in the agriculture

(continued on page 13)
(ITU) Connect the World initiative, which has as its goal, basic global connectivity by 2015. Following the already successful initiatives across the globe such as Connect Africa and Connect Asia; the Caribbean effort, championed by CANTO, proposed a number of activities and strategies for the utilization of information and communications technologies to link the people of the Caribbean, as well as to drive and promote regional economic integration and prosperity.

In this regard, CANTO has undertaken to champion the development of three key initiatives:

1. The Content Creation Project was a National and Regional e-Content Competition which encouraged content creation in a wide variety of areas including applications for government, business, entertainment and environment. The emergence and showcase of these new Caribbean innovations will inevitably drive demand, both regionally and internationally, thereby fostering a self-sustaining economic model.

2. The e-Marketplace Initiative - governments, business and the wider citizenry can come together in a virtual space to trade ideas, opportunities, goods and services through a Regional e-Marketplace championed by CANTO under CTC. The Marketplace will allow businesses greater regional visibility and will create a platform for governments to operate more efficiently.

3. Social and Community Investments. CANTO is also encouraging its members to invest in its social and community initiatives. One of these is the Community HUB model, which involves developing the skills of underserved youth, in a way that not only allows them to use technology in its existing applicable form, but to create new and native solutions which are re-deployable both in a business setting as well as within their communities.

Cultural differences, language barriers, absence of trust and differing levels of ICT maturity within countries and the subregion. This makes it difficult to build networks and share knowledge. These barriers translate into hierarchical processes of organisations, both in the private and public sectors and create a huge challenge in that effective knowledge networks require knowledge to be able to flow horizontally. Overcoming these barriers requires greater autonomy in organisations, and the development of appropriate strategies and policies that encourage participation and sharing of information and knowledge.

The development initiatives and objectives that flow from the knowledge networks, along with results of the knowledge sharing and creating activities within the network, have the potential to be more successful, because they are the results of collaborative exercises that ensure the inclusion of various types of expertise from all sectors, private and public. These types of initiatives hold bigger benefits for all citizens of the Caribbean in the form of economic growth, social progress and environmental effectiveness.

Source: http://bit.ly/1C4CaFq

**UPCOMING EVENTS**

2nd QUARTER 2013

10 April 2013
Expert group meeting on new technologies, including energy efficiency and renewable energy technologies, with respect to development and greenhouse gas emissions reduction in the Caribbean. Georgetown, Guyana.

12 April 2013
Launch of regional reports on climate change. Port of Spain, Trinidad and Tobago.

9 May 2013
Symposium to discuss the paper: “Introduction to the convergence model of integrated production.” Port of Spain, Trinidad and Tobago.

27 May - 1 June 2013
Expert Group Meeting on National Accounts. Willemstad, Curacao.

11 June 2013
Visit of the President of the Regional Council of Martinique to ECLAC. Port of Spain, Trinidad and Tobago.

21 June 2013
Expert group meeting on yachting and marina services in the Caribbean. Port of Spain, Trinidad and Tobago.

25 June 2013
Meeting on energy efficiency in the Caribbean. Port of Spain, Trinidad and Tobago.

**LIST of Recent ECLAC Documents and Publications**

**Listed by Symbol Number, Date and Title**

<table>
<thead>
<tr>
<th>No.L</th>
<th>Symbol Number</th>
<th>Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>L.401</td>
<td></td>
<td>December</td>
<td>Development paths in the Caribbean</td>
</tr>
<tr>
<td>L.394</td>
<td></td>
<td>February</td>
<td>An assessment of the economic and social impacts of climate change on the tourism sector in the Caribbean</td>
</tr>
<tr>
<td>L.400</td>
<td></td>
<td>March</td>
<td>Caribbean Forum: Shaping a sustainable development agenda to address the Caribbean reality in the 21st century</td>
</tr>
</tbody>
</table>