Enhancing Public Sector Performance through ICTs

The information age is having a dramatic impact on governance. Governments worldwide are undergoing a re-engineering process known as ‘government reinvention’. The goal of such a process, in which ICTs are playing a key role, is to improve efficiency and to deliver more transparent, high-quality government services to citizens.

ICTs can be a powerful tool for both economic and social development, having a beneficial impact on jobs, health, education, and commerce. ICTs can also increase participation in democratic institutions by the general public, as well as promote e-inclusion by the less privileged and people with disabilities. ICTs should therefore be used as a strategic instrument to help achieve the Millennium Development Goals and to implement the WSIS Plan of Action.

In this process of government reinvention, ICTs can play an important role in providing citizens’ access to government information and increasing citizen participation. In many countries throughout the world, governments have already published their laws, codes and regulations online.

Government websites are becoming increasingly interactive, providing not only information, but in many cases actual services. Successful governance in this knowledge economy will require the effective management of information and knowledge assets, IT planning, and e-government activities.

Public sector reforms throughout the world embodying ICTs are part of an ongoing effort to build trust in defining the terms of a social contract between the diverse groups that make up a society. New forms of dialogue and collaboration among public, private, and civil society organizations enhance transparency and accountability that can assist in creating conditions of fair and open competition while expanding access so that everyone can participate and benefit from today’s knowledge-based economy. E-inclusion, one of the many pre-occupations of modern government, can broaden access to social and economic opportunities, thereby creating new markets in developing countries.

Of particular concern to the world community is the African continent, even more so than the other less developed regions, because of its dire need of resources. Experts at a recent NEPAD conference in Nairobi, Kenya, warned that development will be seriously hindered if Africa fails to bridge the ICT gap that separates the continent from developed countries. Despite improvements, only 2.5 per cent of Africa’s 800 million people have Internet access, compared with 17.8 per cent in the rest of the world.

The following pages outline some of the recent efforts of the Division for Public Administration and Development Management (DPADM) in the areas of e-governance and knowledge management.
From e-Governance to Connected Governance

The world in the 21st century is witnessing a quantum leap in the development and exploitation of ICTs, with corresponding ramifications for social and economic organization, the environment, culture and the development of a global information infrastructure. The key issues of concern to policy-makers and international organizations are the extent to which this major transformation is helping to build and restore trust in government, whether this transformation is benefiting all aspects of society, as well as different groups within the society, and the ways and means of achieving a truly global information infrastructure.

Governments are struggling with how to manage the networked society, both from the point of view of putting in place structures and institutions that will help adjustments to change but also to increase the flow of this knowledge. The use of Information and Communication Technologies (ICTs) becomes a critical investment as witnessed by the sums of funding now going into this transformational technology. But the investment in e-things is a necessary though not sufficient condition for ensuring effective use of knowledge for development. A challenge for many governments, and particularly those of the developing countries, is to create the conditions that will ensure their participation in the global pool of knowledge production in order to strengthen their capacities for decision-making. Such an effort may entail institutional restructuring in many areas of the private and public sectors, as well as different groups within the society, and the ways and means of achieving a truly global information infrastructure.

Increased transparency of public activities can result in improved governance in the public sector by increasing the knowledge base and transparency of public activities. Increased transparency of public activities can result in building trust in government. This will affect institutional arrangements as well as relations between providers of knowledge and decision-makers.

Knowledge must be managed effectively in an effort to ensure that the basic objectives of governmental organizations are attained to the greatest extent possible. Effective knowledge management (KM) must ensure sufficient internal and external transparency and help individual governmental employees in an organization to locate what they need, while building public trust.

The public sector has a unique role in promoting the production, use and transfer of knowledge, including:

- Providing knowledge not traditionally provided by private firms.
- Ensuring education and information for all.
- Constructing ‘information super highways.’
- Regulating knowledge production, transfer and use (i.e., property rights and equity issues).

The ultimate objective of KM is to maximize productivity in the public sector, while enhancing public service delivery.

Although the costs of using ICTs to build national information infrastructures that can contribute to innovative knowledge societies are high, the cost of not doing so is likely to be much higher. In order to build these capabilities, each country should establish and implement a national ICT strategy that is responsive to sustainable development goals.

The role of the public sector is therefore very important in supporting new forms of market facilitation, introducing effective regulation, and providing public services appropriate to national or local conditions. Public sector strategies also need to focus on the difficulties of using ICTs to transform data and information into useful knowledge. Regulatory frameworks must ensure that understanding, sharing, and partnership-building are central components of national ICT strategies. The public sector needs to also recognize that opportunities for using ICTs creatively require technical and human capabilities that are built up through experience with the new technologies and services. The public sector can therefore identify and fill important gaps in the institutional frameworks in which learning occurs, never losing sight of the fact that benefiting from ICTs requires managerial quality and leadership, flexible and multi-skilled labour, and institutional learning and experimentation.

Improved KM is essential to governmental agencies at the federal, regional or local levels, because governmental organizations are basically knowledge-based organizations. The authority of governments has often been based on a monopoly of production and knowledge. Governments are now required to systematically scan the environment for knowledge about tools and techniques used by the frontrunners in knowledge management. The public sector has traditionally had a capacity to bring together the public and private sectors, as well as different strata of society to share knowledge about policy issues or about service delivery. The question is thus not whether governments have ever managed knowledge or whether they should, but rather how they can improve their practices to better adapt to the new knowledge-intensive economy, in the process, building trust in government.
WHAT SHOULD BE THE MAIN OBJECTIVES OF
KNOWLEDGE MANAGEMENT IN
GOVERNMENT?

The ultimate objective of KM is to maximize productivity in the public sector, while enhancing public service delivery. More specific objectives of KM include:

- Reducing overall costs while providing a quick return on investments made to install KM systems.
- Reducing processing time.
- Reducing storage.
- Improving internal workflow.
- Improving service to the public and providing faster service through immediate online access to records.
- Enabling the sharing of recorder’s information with other governmental agencies.
- Improving control and management of records, allowing for parallel processing and simultaneous access to documents.
- Providing better supervisory control tools to manage work.
- Providing advanced technology worker tools.
- Prioritizing work.
- Improving worker morale by eliminating or reducing backlogs while recognizing quality performance.
- Reducing training time.
- Improving document security.

The world in the 21st century is witnessing a quantum leap in the development and exploitation of ICTs...

WHAT ARE THE MAIN CHALLENGES OF
KNOWLEDGE MANAGEMENT IN
GOVERNMENT?

KM is essential to government at any level, federal, state, or local. It has become increasingly apparent that in order to enhance public satisfaction, in the effort to build trust in government, governmental organizations face a major challenge, not just in labour or capital management, but in the ability to manage effectively their employees’ knowledge based on ICT-led processes. The rapidly growing importance of knowledge is highlighted by the fact that many governmental organizations now attempt to organize and to make available the relevant collective knowledge of their employees by building an organizational knowledge repository. Governmental organizations face a number of other more specific challenges which demand effective and innovative KM, including the following:

- The sheer volume of records any governmental organization processes.
- The need to keep those records accessible over a long period of time.
- The need to provide for public access to records. A paper-based system poses a daunting challenge to public access of government records.
- The need to still deal with paper, since not everyone files their taxes online, or renews their driver’s license over the Internet.
- The need to keep documents secure is paramount when dealing with government records.

OPPORTUNITIES OF USING ICTS TO MANAGE
KNOWLEDGE IN GOVERNMENT

There are two basic levels that underlie the development of knowledge-based development – infrastructure, and skills. Infrastructure is basically the size and growth of the telecommunications network. Telephone networks provide a broad base for building other types of infrastructure, such as data communication networks. Skills are basically the literacy level of a country, and its stock of graduates with technical degrees in engineering, mathematics, and computes sciences.

Horizontal and vertical collaboration between agencies is critical in effective service delivery. One of the major problems in KM is connecting multiple agencies and making provisions for horizontal and vertical collaboration between agencies at all levels.

Institutional alignment is also critical in effective service delivery. Effective KM necessitates that bureaucratic divisions be opened up to promote horizontal knowledge-sharing, and the adaptation of organizational capital, i.e. databases, internets, intranets, and knowledge central coordinating units. The creation of organization wide ‘who knows what’ directories, referred to as ‘yellow pages’, allows people who need information to locate and get in contact with those who have it.

Information quality is critical to service delivery. With the volumes of data and demands for information growing at an exponential rate, the information quality challenge is becoming an increasingly critical one for governments and businesses alike to address creatively. Vital information on citizens often exists in several locations, on different systems that evolved over time with little proactive management. The problem is compounded when processes and controls to ensure data is captured consistently and accurately at source are not defined, set up and enforced. Central versus local control is a related issue.

Creating ‘communities of practice’ is equally critical to service delivery. One of the basic notions in KM is connecting the ‘silos’. Silo is used in KM as a metaphor for the self-contained organizational unit, into which stuff gets dumped in and taken out, but which has little or no communication with the other silos (products, regions, divisions, units, etc. that constitute the organization). The solution to the silo problem is to create ‘communities of practice’ or ‘communities of learning’.

Confidentiality, integrity, and availability issues. The value of an organization’s assets relies on three cornerstones: confidentiality, integrity, and availability. Confidentiality deals with the unintentional disclosure of information outside of a pertinent authority. Integrity
assures the organization of the trustworthiness of the information. Availability ensures that the service or data product is accessible for requests from authenticated clients. Security policies define the nature of what is considered to be a secure state. The ability of the internet to allow clients access to a wide variety of information has introduced a number of vulnerabilities to services offered via this mechanism. Mechanisms can be put into place to address security concerns.

Electronic Content Management issues. A subset of KM is Electronic Content Management (ECM), which is the realization that organizations typically have numerous and frequently non-interfacing and incompatible systems to manage electronic information.

New information requires innovation. Since new information often requires innovation, the management of innovation is important in governmental organizations. Innovation is an ongoing process in which organizations create problems, define them, and then develop new knowledge for their solutions. Successful governmental organizations are those that consistently create new knowledge as solutions to unfamiliar problems, disseminate it widely throughout the organization, and quickly embody it in new technologies and products.

More importantly, as noted above, the main challenge of efficiently deploying ICTs for effective KM is how to develop human resource strategies that leverage human-intellectual capital within organizations, and for the dissemination and sharing of important information that promotes creativity and innovation. If the repository for intellectual property is a patent or copyright, the repository for knowledge is the information worker.

Governmental organizations that spend millions implementing and integrating complex IT infrastructures should not forget corresponding investments in people. Inability to change employee behaviour, internal resistance to changing business processes, or lack of adequate worker training are probably the most significant obstacles to improving productivity through IT applications. There is therefore an overriding need for governments at all levels to invest in organization and management so information workers can realize their potential.

The role of the public sector is very important in supporting new forms of market facilitation, introducing effective regulation, and providing public services appropriate to national or local conditions. Public sector strategies also need to focus on the difficulties of using ICTs to transform data and information into useful knowledge. Regulatory frameworks must ensure that understanding, sharing, and partnership-building are central components of national ICT strategies. The public sector needs to also recognize that opportunities for using ICTs creatively require technical and human capabilities that are built up through experience with the new technologies and services. The public sector can therefore identify and fill important gaps in the institutional frameworks in which learning occurs, never losing sight of the fact that benefiting from ICTs requires managerial quality and leadership, flexible and multi-skilled labour, and institutional learning and experimentation.

**KM implementation requires not only substantial investment, but also changes to the implementing organization’s culture and structure.**

A RENEWED INTEREST OF CITIZENS IN THE UPTAKE OF GOVERNMENT SERVICES

In the industrialized world, countries are finding that the initial use of ICTs to provide timely and relevant public services has led to a renewed interest on the part of citizens in the uptake of government services. In the developing world, where access to networks is less widely diffused, there are a growing number of experiments with ICT applications to support governance activities.

However, access and use of ICTs for development is at a formative stage in many developing countries, with millions of people still outside the inclusive net of its benefits. Lack of telecommunication infrastructure and education, compounded by a lack of integration of ICT policies into development planning and an inadequate enabling environment and regulatory framework impede inclusion and participation of all.

As new technologies have a growing role in society there is a need to rethink governance paradigms to redirect them towards citizen-oriented, participatory and inclusive models of e-government and e-participation for development. Transforming the functioning of the public sector towards greater efficiency and better service delivery requires, among other things, that use of new information and communication technologies be geared towards policy development. ICTs can help shift the role of government from that of a manager with authority to one of a leader with a vision, while shifting its orientation from bureaucratic to participatory, and its reach from exclusive to inclusive.

Greater attention needs to be given to innovative applications of ICT in support of e-participation and e-government endeavours. There is a need to extrapolate information on best practices so as to facilitate the adoption and effective implementation of these initiatives worldwide. Lessons learned from existing e-participation and e-government initiatives need to be used to better design and adapt ICT initiatives in countries striving to develop their own programmes in a way that the benefits of ICT can be maximized to achieve their respective development agendas, while minimizing the inherent risks and costs.

The implementation of KM involves innovation and reformation for organizations. KM implementation requires not only substantial investment, but also changes to the implementing organization’s culture and structure.
Key Issues on e-Participation and e-Government

In its endeavour to support Member States in the area of ICT for development, the Division for Public Administration and Development Management (DPADM) of the United Nations Department of Economic and Social Affairs (UNDESA) organized an Expert Group Meeting on ‘e-Participation and e-Government: Understanding the Present and Creating the Future’ from 27-28 July 2006 in Budapest, Hungary. The meeting was organized as part of the ‘International e-Participation and Local Democracy Symposium on Promoting Social Inclusion via e-Participation’, hosted by the Office of the Deputy Prime Minister, United Kingdom. A group of 24 experts was invited to present specialized papers on the subject and to discuss the technical issues related to e-government and e-participation.

**KEY FINDINGS OF THE MEETING**

The meeting was undertaken with the ‘United Nations Global e-Government Readiness Report 2005: From e-Government to e-Inclusion’ as the backdrop. The meeting provided an opportunity to bring together a multidisciplinary group to further evolve the holistic framework for the UN of e-participation and e-government assessments worldwide. Experts were of the opinion that e-government is a key tool for public sector reforms towards better governance, which is a cross cutting requirement in the achievement of the objectives of the Millennium Declaration. Policy tools to stimulate e-government include benchmarking, exchange of good practices, cooperation, and financial support. Online public services can contribute to raising the access and availability of services and employment, and act as a catalyst for e-inclusion by offering new and better services. Online services can also foster social integration. Through effective e-participation and e-government, governments can strive to:

- Provide mechanisms for assessing the creation of value for citizens.
- Promote participation in democratic processes by using online channels and placing politically useful information online.
- Contribute to economic growth and sustainable development.

Promoting e-participation requires the inclusion of citizens in participative and deliberative decision-making processes. E-participation can be thought of as a tool which expands the parameters of decision-making. Along with the decentralization of services to local governments, the use of ICTs allow citizens to participate in governmental decision-making affecting their basic needs. E-participation can also nurture the development of democracy and a progressive transformation of the relationship between politics and citizens.

Following up on the discussion of e-inclusion and e-participation, it was noted that several countries worldwide were exploring different ways of developing interactive mechanisms to encourage e-engagement and e-participation. In recent years, many countries had moved in the direction of employing ICT to incorporate citizens’ perspectives into public policy making, especially as it relates to the delivery of services.

Lessons of experience at the country level suggest that participation of citizens through ICT lends support to good governance and effective policy making. It is also accepted that e-government and e-participation could promote transparent, inclusive, pluralistic, and decentralized societies.

Along with decentralization of services to local governments, use of ICTs allows citizens to participate in governmental decision-making affecting their basic needs.
Feedback received from member states and clients after the publication of the 2005 UN Global e-Government Readiness Reports has been very positive. According to the department's monthly surveys, this report always ranks as one of the top ten downloaded documents from the UNPAN portal. It also ranks as one of DESA's top ten most read publications. A more detailed assessment of the impact of this report follows.

Impact Assessment of the UN Global e-Government Readiness Report

Since 2003, the Division of Public Administration and Knowledge Development (DPADM) has published the annual UN Global E-government Readiness Report which assesses the e-government readiness of the 191 Member States employing ICTs and e-government for improving the delivery of services to citizens.

This year, DPADM undertook an assessment of the demand for - and impact of - the UN Global E-government Readiness Report.

The UN Global E-government Readiness Report published by the KMB has become the worldwide standard in global e-government benchmarking. Its impact can be gauged by the fact that the report continues to be quoted and used extensively by countries around the world. Mr. Angelo Timoteo M. Diaz de Rivera, Commissioner for eGovernment Development of the CICT (Commission on Information and Communications Technology) concurrently Director General of the National Computer Center in the Philippines stated that: 'It is very fortunate that the UN recognizes the country's efforts in terms of e-government. Through this, we were able to gain good stature in terms of providing government content online.' Among others, the Government of Brazil is in the process of adapting the UN methodology to its own e-government measurement. It commandeered a report on the UN Global E-government Readiness Report 2004 which states '...of all the surveys studied, the United Nations Global E-government Readiness Report is the one with the greatest methodological depth and measurement reach ... In fact it is the best theoretical and methodological effort already undertaken in this topic.'

The report continues to impact e-government strategies in many parts of the world. Many countries continue to seek advice on how their rankings can be improved in the UN E-government Survey. The Government of Russia approached the UN to adapt the methodology of the UN E-government Index to assess its regional e-government readiness. The Korea Times posted on its website in December 18, 2005 that a ministry official stated that 'South Korea ranked fifth this year in the United Nations' evaluation for e-government readiness among 191 countries, thanks to its advanced information technology (IT) and nationwide broadband network.' The Australian Government's State of the Service Report 2004-05 stated that '...the United Nations noted that Australia had one of the most impressive online provisions of information and services...'

Among the Academia, researchers have studied and compared the conceptual and statistical model of the UN Global E-government Report. The Internet based journal ‘E-government from a User’s Perspective’ states that the UN Global E-government Readiness Report '...is one of the most often quoted research projects and its assessment tool is considered to be an excellent resource.' Of all the surveys studied, the United Nation's Global E-Government Readiness Report is the one that has the greatest methodological depth and measurement reach' states a Brazilian Government commissioned study titled ‘Crítica Metodológica Al Inform-Readiness da UN’ (in English: Methodological Critique to the United Nation's E-government Readiness Index). In a paper titled ‘Determining Progress Towards e-Government: What are the Core Indicators?’ presented by Adegboyega Ojo, Tomasz Janowski and Elsa Estevez at the Proceedings of the 5th European Conference on e-Government, University of Antwerp, Belgium, 16-17 June 2005 the authors stated that 'UN-DESA surveys are by far the most comprehensive of the three series examined in Section 4, including both generic indicators to measure e-readiness...'

2 The Korea Times (posted on the website in December 18, 2005)
4 'E-government from a User’s Perspective' http://www.aema.org/E-Government/Benchmarking_and_Assessment_Tools.htm (access March 24, 2006)
5 Florencia Forrer Research & Consultancy and NED-GOV. Sao Paulo, June 2005 http://www.florenciaferrer.com.br
I.(b) Promoting the Improvement of Government Online Services to Citizens through ICTs

What does DPADM do and offer?

Analytical Research

Expert Group Meeting Report

The Division for Public Administration and Development Management (DPADM) of the United Nations Department of Economic and Social Affairs (UNDESA) organized an Expert Group Meeting on e-participation and e-government at the ‘International E-Participation and Local Democracy Symposium’ in Budapest, Hungary, 27 – 28 July 2006. The meeting reviewed and analysed approaches and practices in understanding what constitutes e-government and how to characterize e-participation in order to assess issues and challenges facing developed and developing countries as they advance at their respective pace towards implementing a people-centred government.

The meeting also examined the issues of what constitutes e-participation and e-government readiness, what the existing models to measure e-participation and e-government readiness are, and how these models could be enhanced and/or adapted by other countries. The full report, along with the presentations of the meeting, are available on the UNPAN portal at http://unpan1.un.org/intradoc/groups/public/documents/un/unpan026527.pdf. See also ‘Key Issues on e-Participation and e-Government’ on page 5.

Knowledge Base of Global e-Government Information

The e-Government Readiness Survey assesses more than 50,000 features of the e-government websites of the United Nations Member States to ascertain how ready governments are in employing the opportunities offered by ICT to improve the access to, and the use of, ICTs in the provision of basic social services.

Access to information and communication technologies is considered crucial for poverty reduction, since it contributes to new sources of income and employment for the poor, improved delivery of health and education services, and the competitiveness of the economy.

DPADM has created an interactive Knowledge Base of global e-government information and data that captures time-series data from previous e-government surveys, so that governments and all members of civil society have easy access to this valuable information for research, education, and planning purposes.

The E-Government Readiness Knowledge Base is available at http://www.unpan.org/egovkb/about/index.htm

Guidelines for promoting accessibility and inclusion

- Provide an enabling environment and policies for the development of ICT
- Develop IT infrastructure and networks
- Employ ICTs for e-inclusion
- Facilitate and promote widespread and varied uses of ICTs by society
- Promote human resource capacities for ICT skills
- Aim to provide access to disadvantaged groups
- Create a level playing field for cultural access to ICT tools and applications
- Support uses of ICTs for socio-economic development
- Promote cohesion and consensus on socially inclusive approaches

Out of the 177 countries with national websites surveyed, 65 countries had English as the primary site language.

Of the 12 governments in the world that are still not online, more than half are from Africa

Advisory Services at Country and Regional Levels

Computerization of the Motor Vehicles Registry and Driver Licenses Issuing Procedures
Belize, October 2005 – December 2008

The focus of this project is on the computerization of some key operations of the Department of Transport. The specific objective is to address the needs of automating procedures related to the information management of driver license and vehicle registration. This objective will be achieved through the implementation of an online application that will convert the current paper-based procedure used by district traffic offices to interact with their citizens, and to deliver services that are responsive to their needs. The project will help the Government of Belize to tackle the following problems: the high levels of corruption among public officials working at district traffic offices, citizens’ non-compliance with the payment of related fees, and the trafficking of vehicles illegally brought within the national borders.

E-government for Enhanced Service Delivery
Lesotho, March 2006-March 2008

The focus of this project is on the government to government (G to G) element of e-government. By ensuring that various departments within the Ministry of Communications, Science and Technology are using the same IT platform, greater synergies among the departments will occur which will increase productivity within the ministry. In addition, the majority of departments are currently working in isolation and, as a result, there is a duplication of servers, firewalls, Internet connections, etc. This project aims to interconnect the four locations of the ministry through a wireless solution. In addition, the project will deploy integrated databases, portals, servers, firewalls, and other security measures, as well as Internet access throughout the ministry. In early August 2007, a ‘Kick-Off’ meeting took place in Maseru, Lesotho, after the signing of the UNDESA contract. An e-government study tour to the United Kingdom for key members of the Lesotho Government was organized for the middle of September 2007.

Enhancing St. Vincent Government’s Official Web Site
Saint Vincent and the Grenadines, July 2005 - June 2007

The project’s deliverables were:

- The conversion of the website of the Government of Saint Vincent and the Grenadines into a web-portal, which met the main requirements and needs of a multi-channeled portal providing information and services at the governmental, ministerial, and departmental level, to citizens and businesses (G2B & G2C), and the development of an e-learning component as part of the newly deployed portal.

- The development and deployment of the following e-taxation applications, the online payment of taxes by civil servants, and the on-line registration service for the business names of individuals or companies.

- The provision of a capacity building program deployed through working sessions, learning by doing, and through the use of an e-learning platform to develop the technical skills of both the developers and the final users.

The deployment of the new system resulted in a new organizational structure implying new roles and responsibilities of the people involved in the management of the newly developed system. As a result of the deployment of a portal, the government was able to provide online services to businesses and citizens, create interfaces and integration among data banks and functions of different administrative entities, develop a reference model that defines the e-government and information management systems for the Government of Saint Vincent and the Grenadines, and establish a platform to integrate future applications.

E-Access for All
Bangalore, India, 8 –9 February 2007

A number of countries have made strides in bridging the digital divide. UNDESA and the Government of Karnataka, India jointly sponsored a two-day workshop to take advantage of these successful initiatives by providing an opportunity for these countries to share their respective experiences and current thinking on improving e-access.
The meeting tackled issues such as: economic and social equity, social mobility, economic growth, democratic engagement, infrastructure development, and open and free source applications within the context of e-government. It identified seven lines of actions that should be undertaken by countries to effectively implement e-government solutions and e-access for all. The full report along with the presentations of the meeting are available on the UNPAN portal at http://unpan1.un.org/intradoc/groups/public/documents/un/unpan025305.pdf

E-Access for All Workshop, Bangalore, India

Advocacy

E-participation and E-government: Understanding the Present and Creating the Future

The meeting was organized as part of the ‘International E-participation and Local Democracy Symposium on Promoting Social Inclusion via E-participation’, hosted by the Office of the Deputy Prime Minister, United Kingdom. For more information please see pages 5 and 7 of this newsletter.

Expert Group Meeting, Budapest, Hungary

6th Annual Forum on City Informatization in the Asia-Pacific Region
Shanghai, People Republic of China, 18 - 19 October 2007
This high-level forum provided a platform for policy and decision makers of municipal governments in the region to exchange their views, strategic plans, and experiences in the development of the information industry and the applications of information technology. It also promoted inter-country, regional, and international cooperation, particularly South-South cooperation.
The theme of the forum was ‘ICT for a Better Life: The Role of Local Government’. Senior government officials had the opportunity to share experiences and current thinking on innovation for public services in the following areas: better public service delivery; better connectivity and access for all; better business and development; and better participation and citizen engagement.

**Training & Toolkits**

**Online Training Course: E-Government: What a Government Leader Should Know.**

The highly popular online training course, E-Government: What a Government Leader Should Know, was first made available to UNPAN users in September 2005. The course is divided into three parts. It provides background knowledge on ICT development and e-government related basic concepts, describes fundamental infrastructures that are required for the success of e-government development, and discusses high-level concerns on e-government sustainable development.

The course has been well received. Ninety percent of participants found the course material to be very relevant to their daily tasks. Participants also reported that the content is very useful for government officials and particularly relevant to those involved in e-government projects, especially in developing countries.

Since September 2005, over 1300 individuals have registered for the online course with enrolment numbers steadily increasing each time the course has been offered. Winter 2007 saw enrolments increase by sixty percent and the number of successful completions increase by eighty percent. A wide range of occupations are represented by the learner group with reference to organizations and levels. Participants have included CEOs, ICT experts, consultants, programme managers, e-government coordinators of country offices, and technical directors. Of these participants, eighty-six percent were from developing countries, with the highest number of registrations from India and Nigeria.

In addition, in response to student feedback, an extensive revision of the course material was recently undertaken. A project is also currently underway to further enhance the delivery of the programme’s course material through the development of an interactive format. This interactive format will be available in early 2008.

**Seminar for Diplomats: E-Governance for Development, June 14, 2006, Conference Room 9, UN, New York**

The aim of this seminar was to strengthen the capacity of delegates of developing countries to actively engage in (policy) decision-making processes regarding ICT and development, and consequently the capacity of their governments to better formulate e-governance policies to meet the internationally agreed development goals.

Outcomes included the promotion of meaningful deployment of modern information and communication technologies (ICT) by governments of developing countries to support their administrations and to address governance challenges. The seminar increased the knowledge of delegates and other government officials of developing countries about e-governance for development, including e-government and knowledge management, and also resulted in a set of training materials that are accessible on-line.

**Ambassadors’ Briefing on ‘Success, Failure and Management of e-Government Initiatives’**

*Geneva, Switzerland, 23 May 2007*

UNDESA held a briefing for ambassadors and other senior members of government on the theme ‘Success, Failure and Management of e-Government Initiatives’. In the morning session, Harvard Professor, Jerry Mechling, made a presentation on ‘The Framework for Successful e-Governance: dos and don’ts’. The participants exchanged their opinions on the proposed framework and agreed on its usefulness.

The afternoon session focused on the plight of developing countries in their respective efforts to bridge the digital divide. Minister Thompson of St. Vincent and the Grenadines spoke on how the least developed countries could leapfrog the digital divide and Counselor Gatti of Italy spoke on how developing countries could fill their current e-government gaps.
Compendium on e-Government Innovative Practices

In light of the importance of e-government as a tool to meet the Millennium Development Goals, DPADM has created a Compendium of Innovative Practices in the area of e-government. In accordance with UNPAN's mission to promote the sharing of knowledge, experience, and best practice among United Nations Member States, the compendium provides an opportunity for governments to share their activities in e-government by highlighting their valuable experiences.

The second version of the compendium was published online in September 2006 and printed in hard copy in June 2007. It includes 200 cases from 57 different countries. The publication is highly appreciated by users who have with increasing frequency downloaded volumes 1 and 2 of the compendium. These volumes have ranked for several months among the top ten most visited documents of the UNPAN portal. Volume III is currently under preparation and is expected to be available by the end of 2007.


Compendium of Innovative ICT applications on m-Governance

The Compendium of ICT tools on m-Governance is a unique collection of modern Information and Communication Technologies used directly by, or in partnerships with, governments or governmental institutions around the world to support their administration and public service, and to address governance challenges. The current volume of the compendium focuses on software products and applications from developed and developing countries for m-education and m-health.

Meter 2

The objective of METER, as a ready-to-use interactive tool, is to help governments to monitor, refine, and improve the context driving the emergence, or the further fostering, of e-government. Within the four main areas (i.e. building blocks) key to building the enabling environment (i.e., organizational issues, policy requirements, legal and regulatory framework governing ICT, and e-leadership), the tool identifies essential factors, choices, and dilemmas likely to determine the public sector's capacity to effectively harness technology as an enabling force for renewal and leadership. The tool then becomes a type of check list of key issues that need to be addressed in the four areas and aims to assist policy makers in selecting where to direct their efforts intended to spur e-government development.

By addressing these issues, policy makers either become aware of specific issues new to them, or realize the importance of certain topics they had not previously considered as essential. Finally, the tool aims to explore possible alternatives to tackle specific issues.

Plans are underway to enhance the current version of METER.

METER 2 will be an Internet-based application that will result in an online e-government tool that is user-friendly and accessible by all policy decision-makers. Once available, METER 2 will be tested as a pilot project in a select number of countries. If the pilot project is considered a success, then it is anticipated that METER 2 will be launched at an international forum.
II.(a) Enhancing Back Office Management Capacities for Governments through ICT Tools

Key Issues on Knowledge Management: Focusing on Improving Government Services through the Application of ICT Tools

Within the context of the 7th Global Forum on Reinventing Government, which took place at United Nations Office in Vienna from 26 to 29 June 2007, on the theme of ‘Building Trust in Government’, DPADM, in partnership with the Ministry of Government Administration and Home Affairs (MOGAHA) of the Republic of Korea and the Dubai School of Government (DSG), organized a workshop on Managing Knowledge to Build Trust in Government.

Opening Session: Mr. Guido Bertucci, Dr. Nam-Joon Chung, & Mr. Nabil Ali Alyousuf

The workshop provided a platform for discussion and elaboration of the issues of Knowledge Management (KM) in Government and was composed of three sessions: Session 1 on Enabling Environment Issues, Session 2 on Good Practices and Lessons Learned, and Session 3 on UNDESA’s Role in KM in Government.

Some of the key findings of the workshop are as follows.

**ENABLING ENVIRONMENTAL ISSUES**

The workshop confirmed that there is a great need to convert the massive information available into useful knowledge which would enable governments to formulate polices and deliver effective services with increased transparency and trust in government. The regional and local dimensions, aside from the national one, are also important. In Europe, for instance, they constitute 70% of the total. Yet, 30% of Europe’s population do not and will not do e-government. That 30% is the most dependent on governments viewing citizens and businesses as customers. Integration of back office systems is also required in order to provide a seamless service delivery to the citizens and businesses. There is limited use of newer technologies for social networking as rules and practices for such usage have not been established. Finally, the issue of measurement was deemed to be extremely difficult and complicated, but OECD is working on developing measurement and practice.

Speakers of Session I: Enabling Environment Issues

Aside from investing in IT technologies, there must also be investment in human capital to facilitate the acquisition of knowledge by individuals. KM tools such as Communities of Practice, Best Practice Transfers and the Apprentice Model are beginning to become popular in terms of facilitating the sharing of knowledge. Creating a culture that supports the sharing of knowledge and citizenship participation in policy making is also important in bringing resources together to deliver services to the citizens. Introduction of incentives to share information across organization boundaries could be one example. Executive involvement and strong inter-organizational collaborative skills are also key success factors.

Multiple forms of funding are available to finance KM projects. Government funding and traditional cost justification of KM systems remains fundamental in the case of developing countries at the moment, but governments at least on the European continent have closed the book on the funding issue by integrating it into their general budget structure. Private funding partners who may be benefiting from a larger market share with increasing revenue also bring greater value to the citizens through faster and better services.
CASE STUDIES AND UNDESA’S ROLE IN KNOWLEDGE MANAGEMENT IN GOVERNMENT

The workshop confirmed that the major challenge facing KM implementation is not a technological one but requires the development of a common culture of modernization of public administration. The solution is to use a problem solving approach rather than a mere technological implementation of a portal. The key objective of a knowledge based administration is to focus on achievements of the goals of government agencies and improvement in the quality of processes and services to the citizens which incorporate the input of citizens. There are differences in approaches in implementing KM between the regional and national governments as national governments look at overall policies, whereas regional governments are responsible for delivering services to citizens.

Various frameworks are available to measure the economic impact of e-government projects. Various countries have put in place formal measurements and indicators to measure impact and benefits. Communications programs to inform the citizens of these services and measurements have also been introduced.

UNDESA’s activities and the knowledge base, especially provided by the UNPAN portal to store the results of the frameworks and good practice, greatly facilitate the development of KM capacities of developing countries. The Republic of Korea’s proposal to establish a Global Community of Practice in order to build a systematic foundation for global cooperation is another step forward to share knowledge on KM practices.

All governments have differing goals and priorities. There is no simple answer to the ‘correct’ model for KM implementations. It would be important to continue deeper studies on KM initiatives. These studies should also look into the achievements of KM and whether productivity and public service delivery have been enhanced and trust in government has increased. All these studies should be shared to enhance global cooperation. The United Nations, through UNPAN and its members and stakeholders worldwide should continue to play an important role in this regard.

The drivers of e-government projects would include the political head, the IT head and an administrator who controls the purse strings. Publicity and marketing of e-government services is also required to bring awareness to the citizens. In addition, good e-government services promote themselves.
Managing Knowledge to Build Trust in Government Report

The outcomes of the Managing Knowledge to Build Trust in Government Workshop which discuss enabling environmental issues and highlight case studies, including UNDESA’s role in knowledge management government, have been detailed in the section of this newsletter entitled ‘Key Issues of Knowledge Management: Focusing on Improving Government Services through the Application of ICT Tools’ on page 12.

Advisory Services at Country and Regional Levels

DPADM’s activities on Technical Cooperation in the area of e-government include the Caribbean e-Government Initiative that has led to the adoption of the Action-Oriented e-Government Strategy for Countries of the Caribbean Region and to the establishment of the Caribbean Technical Advisory and Support Facility for e-Government (TASF).

Caribbean Technical Advisory and Support Facility for E-Government (TASF)


Since the year 2000, DPADM has sustained the Caribbean’s efforts in support of e-government development. The 5th Caribbean Ministerial Consultation on Regional Cooperation for E-government Capacity Building (Barbados, June 2004) adopted the Action-Oriented E-Government Strategy for Countries of the Caribbean Region, 2004-2007. This strategic framework is designed to enable governments to develop their own national strategies and to formulate national and regional e-government programmes. One of the agreed recommendations of the 5th Caribbean Ministerial Consultation was the establishment of a regional Technical and Advisory Support Facility (TASF). One of the objectives of TASF was to strengthen e-government activities in the Caribbean as a whole, while reducing the existing gaps in the application of ICT within the public administration at the national level.

With support staff based in New York, TASF focused on activities aimed at building capacity and creating networks among countries in the region to share experiences, knowledge, information, and applications. These activities included the provision of ad hoc advisory services to individual Caribbean countries, the coordination of regional initiatives, and the deployment of training through a series of in-country workshops for policy makers, focusing on the ‘evidence-based policy making’ (EBPM) approach as a means to develop ICT and e-government policies that are more transparent, relevant, and effective.

To date, the results achieved by TASF include: the training of more than 200 civil servants from five Caribbean countries; the publication of a Handbook on Evidenced-based Policy Formulation Approach; the preparation of E-Government Action Plans for three member states; the re-establishment of National E-Government Focal Points at ministerial, political, and technical levels; the establishment of the Caribbean E-Government Knowledge Bank hosted by UNPAN; and collaboration with four international partners (i.e., CIDA, ICA/IDRC, OAS, CARICAD) to enable the transferring of Jamaica’s Customs Automated Services (CASE) solution to Antigua and Barbuda. The later achievement can be regarded as a best practice when it comes to the sharing of applications and solutions among countries in the region, leading to enormous cost savings and, most importantly, to the transfer of knowledge and experience.
TASF – Phase II

A proposal for the financing of Phase II of TASF has been submitted to the EU.

Based on the work conducted by TASF and in conjunction with CARICOM and CARICAD, a group decision was taken that TASF should focus on information access, disseminating successful practices and experiences, and capacity building.

This decision was a response to a specific request from regional partners who observed that a greater portion of the resources made available by international development partners for implementing e-government/e-governance projects is usually allocated to the development of technical infrastructure, the automation of government services, and the enhancing of public sector capacity - a ‘top down approach’ - with less focus given to the ‘bottom up or citizen-centric approach’. The latter approach would enable the dissemination of information to all levels of government and civil society, thus strengthening democracy and participation. TASF will also focus on the further development of the E-Government Knowledge Bank which will act as a repository of knowledge for the region. The E-Government Knowledge Bank will provide governments with an interactive tool that will enable them to use ICTs to enhance good governance and citizen engagement through online training, and access to information and knowledge.

Web enabling of FINMAN for the Government of Jamaica

Jamaica, October 2005 – December 2008

The Government of Jamaica is planning to transform the existing cash based accounting system into an accrual accounting system in order to better evaluate the cost of services and to provide support that will enable sound managerial decisions. In light of the above, a pilot project is underway using software (FINMAN) that allows accrual accounting and facilitates the sharing of financial information within public agencies. The focus of this project is the migration of FINMAN to a web based language and the identification and implementation of new services and functionalities. In addition, technical training sessions will be carried out, in order to ensure the overall project sustainability and related knowledge transfer. This activity falls within the context of the general public sector reform process that the Government of Jamaica has initiated to enhance the efficiency and the effectiveness of public sector activities.

E-HR Management Project in the Public Administration of Morocco – First Phase


The focus of this project is to create an environment in which the Ministry of Public Sector Management has the ability to effectively manage the career of all civil servants in the Government of Morocco. In particular, the project will address the lack of an integrated personnel and financial management system available to all ministries. It will also provide an assessment of the current HR management and IT situation, an e-HR Assessment, Requirements and Strategy, Pilot Implementation Guidelines, a Communication Strategy and an e-HR Management Prototype. Through the implementation of an e-HR Pilot Project involving the Ministry of Public Sector Management and the Ministry of Finance and Planning, as the two most advanced ministries in the field of HR management, the new e-HR Management System project will be gradually extended to all ministries.

The Government of Morocco and Almaviva (the private sector partner) are in the final stages of developing a prototype for e-HR management for the Ministry. This prototype will be fully implemented in the second stage of the project.

Integrating St Lucia Information Systems

Saint Lucia, July 2005 - July 2007

This project addressed the following problems: the inadequate integration of public administration operations that housed information on citizens, and the lack of a unique identification code for all resident citizens.

The project produced a feasibility study that analysed the current situation, defined operational solutions and guidelines for the upgrading of the existing procedures, integrated operations, and simplified processes across government agencies and around citizen needs. The guidelines also transformed the way government agencies interact with their citizens and provided services that responded to their needs.

The solution proposed in the study, was expected to create an Integrated Citizen Framework and a Service Desk that would enable citizens to access services more efficiently. In addition, the use of Open Source solutions, which guarantee a license
for the free reuse and customization of market software components which would enable the development of a reusable infrastructure that could be redeployed in other islands with similar needs in terms of IT systems' integration. As a result, Saint Lucia could play a leading role of innovator in the field of information systems' integration in the region, and could build the local technical capacity and competencies needed for the autonomous maintenance of the system, for its deployment elsewhere, and for the provision of advisory services to other islands.

Advocacy

Managing Knowledge to Build Trust in Government

Vienna, Austria, 28 – 29 June 2007

This workshop was jointly organized by UNDESA in partnership with the Ministry of Government Administration and Home Affairs (MOGAHA) of the Republic of Korea and the International Institute of Administrative Sciences (IIAS). The workshop’s objective was to encourage discussion on promising approaches and key issues that need to be addressed to promote effective knowledge management (KM) within government, with particular emphasis on the overall theme of the forum, which was to build trust in government.

The workshop confirmed that the major challenge facing KM implementation is not a technological one but one that requires the development of a common culture of the modernization of public administration. The workshop also identified that the solution is to use a problem solving approach rather than the mere technological implementation of a portal. The key objective of a knowledge based administration is to focus on the achievements of the goals of government agencies and improvements in the quality of processes and services to citizens which incorporate citizen input.

UNDESA’s activities and the knowledge base, especially provided by the UNPAN7 portal to store the results of the framework and examples of best practice that have been put in place by a number of countries, greatly facilitate the development of KM capacities of developing countries. The Republic of Korea’s proposal to establish a Global Community of Practice to build a systematic foundation for global cooperation is another step forward in the sharing of knowledge on KM practices.

Please refer to the section of this newsletter entitled ‘Key Issues of Knowledge Management: Focusing on Improving Government Services through the Application of ICT Tools’ for a summary of the outcomes of the Managing Knowledge to Build Trust in Government Workshop (see page 12).

Training & Toolkits

UNPAN Online Training Centre

The UNPAN Online Training Centre is a learning content management system delivering online capacity building courses on various topics in public administration. The availability of the UNPAN on-line training course increases opportunities for government officials from all over the world to access training materials on e-government. It is an effective tool to enhance public sector efficiency and to foster the creation of public value in support of the Millennium Development Goals.

After receiving positive feedback from its users on the first course entitled ‘E-Government: What a Government Leader Should Know’ (see page 10), UNPAN is developing more courses with the help of its partners. These new online courses will be available for UNPAN participants in December 2007 and will cover the following topics: decentralized governance, knowledge management, and result based budgeting in the public sector.

---

7 United Nations Public Administration Online Network
Development of E-Government Portal

The development of an e-/m-government global repository for knowledge sharing aims to provide a comprehensive, cost-effective, user-friendly, and secure interactive knowledge base in order to access, share, contribute and update e-/m-government related information of the Division for Public Administration and Development Management (DPADM) of the United Nations Department of Economic and Social Affairs (UNDESA).

DPADM has various products related to the e-/m-government topic and all the products need to be presented under a one-stop shop. The list below describes the DPADM products related to the e-/m-government topic. All related products and related sections of the UNPAN portal will be integrated by this project.

- **Compendium of Innovative e-/m-government Practices**: This compendium houses innovative e-/m-government case studies of public sector initiatives.
- **ICT Inventory of e-/m-government application for the Public Sector**: The inventory aims to list the ICT software applications and products used by the public sector around the world. It is planned to include hardware products in the future.
- **E-/M-government related information from the UNPAN portal**:
  - **UNPAN Document Server**: e-/m-government related documents from UNPAN content server will be displayed in this section of the knowledge base.
  - **UNPAN Event Database**: Training and meetings on e-/m-government topics will be displayed in this section of the knowledge base.
  - **UNPAN Directories**: E-/M-government theme related entries (training institutions, members, journals, and web sites) will be displayed from UNPAN directories in this section.
  - **UNPAN News Articles**: News articles from the UNPAN portal on the theme of e-/m-government will be presented on this section.
- Various links and other web sites that are related to the e-/m-government theme will also be referred from the UNEOS interactive knowledge base.

The New UNPAN Portal - in development
### III. Building Partnerships through Online and Offline Networks Facilitating e-/m-Governance Initiatives

| UNPAN  
> (United Nations Online Network in Public Administration and Finance) |
|---|
| The United Nations Public Administration Network (UNPAN), is managed by the Division for Public Administration and Development Management (DPADM) of UNDESA, in partnership with relevant international and regional institutions worldwide. It serves as a global portal for public administration, and is the only network of its kind in the world today. Its main objectives are to build capacity, bridge the digital divide between the rich and the poor, promote South-South cooperation, and to access, process, and disseminate relevant information through up-to-date ICTs for the promotion of better public administration.  

The 7th Interregional Consultative Meeting of UNPAN was held on 25 June 2007 in Vienna, Austria, with the participation of the heads and representatives of the 20 UNPAN partner organizations. The main purpose of the meeting was to discuss progress made since May 2004 and future activities to be undertaken. At this meeting, UNDESA announced that UNPAN will be updating its web portal and received constructive suggestions and feedback from its members. The 5th UNPAN Training on ICT-supported Knowledge Management will be held in Seoul, South Korea, in October 2007, during which UNPAN members will be trained on the new features of the UNPAN portal. |

| WSIS  
> (World Summit on the Information Society) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In May 2006, UNDESA facilitated the first multi-stakeholder Facilitation Meeting on implementing the WSIS outcomes related to Action Lines: C1, ‘The role of public governance authorities and all stakeholders in the promotion of ICTs for development’; C7, ‘ICT applications - E-government’; and C11, ‘International and regional cooperation’. The objective of the meeting was to exchange information and discuss possible cooperation modalities among stakeholders for the implementation of the specific action lines. As a result of consultation among the members of the network, a series of thematic subgroups were established under each action line. In May 2007, UNDESA convened the Second Facilitation Meeting to take stock of the progress made in 2006 by all stakeholders in relation to Action Lines C1, C7, and C11, and to identify promising approaches and key issues to be addressed for further implementation. The Second Facilitation Meeting also led to the identification of a focal point for each of the subgroups previously established. The role of the focal points is to formalize and guide the work of the sub-groups in-between the formal sessions.</td>
</tr>
</tbody>
</table>

| GAID  
> (Global Alliance for ICT and Development) |
|---|
| Community of Experts on e-Governance – Global Alliance for ICT and Development (GAID)  

The Millennium Declaration of 2000 and the Outcome of the 2005 World Summit established a clear set of internationally agreed development goals. WSIS forged a global consensus on the importance of ICTs as tools for achieving these development goals. On 28 March 2006, the UN Secretary-General approved the establishment of the Global Alliance for ICT and Development (GAID). Its mission is to contribute to transforming the spirit and vision of WSIS into action and promoting the use of ICTs to successfully realize the above mentioned goals.  

The Community of Experts on e-Governance led by DPADM/UNDESA was established to support this endeavour. It will act as a global knowledge broker on e-governance by facilitating access to information and knowledge on ICTs for development, by identifying opportunities for multi-stakeholder partnerships, and by mobilizing resources. |
The Internet Governance Forum is an outcome of the Tunis phase of the World Summit on the Information Society, which took place in 2005. In the Tunis Agenda for the Information Society, governments asked the Secretary-General to convene a ‘new forum for policy dialogue’ to discuss issues related to key elements of Internet governance and to set out the forum’s mandate.

In November 2006, the forum’s inaugural meeting took place in Athens. It was attended by 1,350 registered participants, including 397 delegates from 97 Member States and 152 accredited journalists. ‘The meeting brought people together who would not normally meet under the same roof,’ said Markus Kummer, the Executive Coordinator of the Forum’s Secretariat. ‘It encouraged dialogue on issues of common interest among people who would not normally interact.’

A stock-taking session held in Geneva in February 2007, showed broad support for the multi-stakeholder format of the Athens meeting and for maintaining this format for the second forum that will be held in Rio de Janeiro, Brazil, 12-15 November 2007. A round of open consultations held in Geneva in May 2007, showed broad support for keeping the four themes discussed at the inaugural meeting - access, diversity, openness and security. In addition, there was widespread support for adding a new theme - critical internet resources - to the agenda of the Rio de Janeiro meeting.

DESA is providing secretariat support through the IGF unit of DPADM.

DESA is also working at the national level in Africa to build capacity to use ICT to modernize parliamentary processes and inter-parliamentary cooperation. The use of open source systems and the regional collaborative approach among parliaments are the key features of the Africa i-Parliament Action Plan, developed with African assemblies.

In 2005, at WSIS in Tunis, DESA and the Inter-Parliamentary Union (IPU) jointly launched the Global Centre for ICT in Parliament, which is an international alliance of parliaments, donors and other stakeholders. The centre is a unique initiative to harness ICT to modernize parliamentary practices and to advance the Information Society goals and is guided by a high-level board comprising the Under-Secretary-General of DESA, the President of the IPU, and a number of speakers of parliament.

While acknowledging the support received by the European Parliament, DESA would like to establish a structured cooperation with the European Commission in this particular area of work, as the role of parliaments in promoting the Information Society and in using ICT for citizens’ participation and institutional development is crucial for development.

There is much to be done in this area, particularly with regard to research and development in order to support parliaments in using ICT for institutional development and, at the same time, in fostering ICT policies, regulatory frameworks, new rights and harmonization of legislation on ICT at regional or sub-regional level.
Development Administration

Development Administration is published by the Division for Public Administration and Development Management, Department of Economic and Social Affairs of the United Nations.
www.unpan.org/dpepa.asp

Correspondence should be addressed to:
Guido Bertucci
Director, DPADM

or

Haiyan Qian
Chief, Knowledge Management Branch, DPADM
2 UN Plaza
Room DC2-1714 or DC2-1756
New York, NY 10017
E-mail: bertucci@un.org
qianh@un.org

Executive Editor
Haiyan Qian

Technical Editor
Silvia Schwarz

Primary Author
Michael Mimocopoulos

Contributors
Vyatcheslav Cherkasov
Seema Hafeez
Richard Kerby
Elida Reci
Deniz Susar
Barbara Ubaldi

Layout
Silvia Schwarz