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# Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels

**Report of the Secretary-General*****

The Economic and Social Council, in its resolution 2006/46, requested the Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the World Summit on the Information Society (WSIS) as part of his annual reporting to the Commission.

The present report seeks to review and assess progress made at the international and regional levels in the implementation of the outcome of WSIS and identify obstacles and constraints encountered. It summarizes information provided by entities in the United Nations system and elsewhere on their efforts in 2007 to implement the outcome of WSIS, with a view to sharing best and effective practices and lessons learned.

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# I. Introduction

1. In its resolution 2006/46 of 28 July 2006, the Economic and Social Council requested the United Nations Secretary-General to inform the Commission on Science and Technology for Development (CSTD) on the implementation of the outcomes of the World Summit on the Information Society (WSIS) as part of his annual reporting to the Commission.

2. In its resolution 2007/8 of 25 July 2007, entitled "Flow of information for the follow-up of the World Summit on the Information Society", the Council reiterated the above request and further requested the United Nations organizations acting as action line facilitators, United Nations regional commissions, main theme facilitators, the Global Alliance for Information and Communications Technologies and Development and other entities, as appropriate, to submit to the secretariat of the Commission their respective reports as inputs towards the elaboration of the annual report of the Secretary-General to the Commission, with their own executive summaries, in a timely manner. The Council requested the secretariat of the Commission to rely as much as possible on these executive summaries in drafting the annual report of the Secretary-General on the follow-up to the outcomes of WSIS.

3. The present report, submitted in response to those requests, reviews progress towards implementation of the Summit outcomes at regional and international levels. It incorporates analyses of responses provided by 14 international and regional organizations[1] to a letter from the Secretary-General of UNCTAD, inviting inputs on trends, achievements and obstacles in WSIS implementation. The report does not attempt to provide a comprehensive account of all efforts at WSIS implementation but highlights major initiatives undertaken since February 2007, as reported by international and regional organizations.

# II. Charting progress and efforts in the deployment of ICTs

## A. ICT access and use[2]

4. The digital divide is still broad but is shrinking in some technologies. Mobile telephony is the technology with the greatest promise of bridging the digital divide. At current growth rates, by the end of 2008, half the world's population is expected to have access to a mobile phone. Mobile telephony is especially important in the least developed countries (LDCs), where mobile phones outnumbered fixed lines by almost eight to one at the end of 2007, and for sub-Saharan Africa, where the ratio was 10 to one. However, the digital divide is taking on new dimensions, as the gap in access to broadband Internet is widening. Although broadband is now available in more than 170 countries, it remains more than ten times more expensive in low-income countries than in high-income ones, and is often unavailable outside urban areas.

5. Mobile telephony continues to register strong growth in the developing world, where the number of mobile phone subscribers tripled between 2002 and 2006, accounting for up to 58 per cent of mobile subscribers in the world. The highest growth rate in mobile phone subscribers and penetration has been in Africa, followed by developing Asia. Based on UNCTAD estimates, the WSIS goal of ensuring that "more than half the world's inhabitants have access to ICTs within

[1] DESA, ECA, ECE, ECLAC, ESCAP, FAO, ITU, UNCTAD, UNESCO, WHO, UPU, WMO, Internet Governance Forum, Digital Solidarity Fund.

[2] This section draws on UNCTAD (2008). *Information Economy Report 2007–2008.*

their reach" by 2015 is likely to be met in 2008 with respect to mobile phone penetration, which in developing countries is predicted to reach almost 50 per cent.

6. The Internet gap is also closing slowly. Whereas in 2002 Internet penetration in developed economies was 10 times higher than in developing economies, in 2006 it was only 6 times higher. Transition economies had the highest compound annual growth rate in Internet penetration between 2002 and 2006. However, although the number of Internet users in Africa continues to grow strongly, penetration continues to be extremely low and uneven. In 2006, only 4.7 per cent of the African population had access to the Internet. Broadband penetration is below 1 per cent and 70 per cent of all continental traffic goes outside Africa, increasing connection costs for consumers. In some parts of Africa, Internet connection costs between 250 and 300 dollars a month, the highest in the world. Four out of 53 countries account for almost 60 per cent of Internet users in the region. Asia contributes the largest share of Internet users, mostly because of China and India, which together account for nearly 200 million users (more than half of the Internet users in the region). Although the number of broadband Internet subscribers has grown rapidly worldwide, developed economies still dominate subscriptions and the gap in terms of penetration has widened since 2002. In developed, high-income economies, the average cost of a broadband connection is significantly less than in developing countries, both in nominal terms and as a percentage of the average monthly income. The digital divide is thus moving away from inequalities in basic "quantity" and "access" to include differences in "quality" and "capacity".

## B. Renewed commitments to Connect Africa

7. The year 2007 saw the launching of the *Connect Africa* initiative, a global multi-stakeholder partnership to mobilize human, financial and technical resources with a view to bridging major gaps in ICT infrastructure across Africa. The Initiative aims at accelerating the implementation of the connectivity goals of WSIS, building on existing national and regional activities and priorities.[3] The initiative was launched at a summit of leaders in Kigali, Rwanda, held on 29−30 October 2007, under the patronage of the President of Rwanda, Mr. Paul Kagame and as the Chairman of the African Union and President of Ghana, Mr. John Kufuor. The Summit was organized by the International Telecommunication Union (ITU), the African Union, the World Bank Group and the United Nations Global Alliance for ICT and Development (GAID), in partnership with the African Development Bank (AfDB), the African Telecommunication Union, the United Nations Economic Commission for Africa (ECA) and the Global Digital Solidarity Fund (DSF).

8. The Summit brought together 1,036 participants from 54 countries, including six heads of State or Government. Forty-three countries in Africa were represented, including 23 at the ministerial level. Some 20 industrial leading companies also participated, along with development banks, international organizations and other stakeholders. The Summit closed with investment commitments of over $55 billion from private and public sector stakeholders[4], to be spent over the next five years, in support of the five goals adopted by the Summit. These goals aim at interconnecting all African capitals and major cities with ICT broadband infrastructure and strengthening connectivity to the rest of the world by 2012, and connecting all African villages to broadband ICT services by 2015. They also favour the adoption of regulatory measures that promote affordable, widespread access to a full range of

[3] Such as flagship initiatives of the African Union Ministerial Conference on Communication and Information Technology, in the context of the African Regional Action Plan on Knowledge Economy, as well as the NEPAD Short Term Action Plan programmes and others on the continent.

[4] Most notably mobile operators of the GSM Association, the World Bank, the European Commission, the African Development Bank, ITU, and the Governments of Rwanda, Tunis and Spain.

broadband ICT services, supporting the development of a critical mass of ICT skills, and the adoption of national e-strategies, with the aim of making multiple e-government and other e-services widely available by 2015.

9. The year 2007 also marked the beginning of construction of the East African Submarine Cable System (EASSy), following the approval of initial funding by the African Development Bank (AfDB).[5] Initiated in 2003, the fibre-optic cable project will connect 22 coastal and landlocked African countries with each other and the rest of the world. When completed in 2010, it is expected to improve access to communications for 250 million Africans, as well as reduce costs for consumers and businesses.

10. The project brings together the private and public sectors, regional development institutions and international organizations to expand telecommunication infrastructure. The total project cost is $235 million, with loan financing of $70.7 million from the AfDB, the French Development Agency, the European Investment Bank, Germany's Development Bank (KfW) and the International Finance Corporation. The 25 private telecom operators that will operate the cable as a consortium will provide the balance. These telecom operators, mostly African ones, will also be the main users of capacity on the cable. Built on a hybrid SPV development model, EASSy allows for smaller operators to participate in the cable consortium at reduced individual entry investments.

11. Within the framework of the follow-up to WSIS outcomes, on the occasion of the second anniversary of the second phase of WSIS, the Tunisian Government, in collaboration with the United Nations Conference for Trade and Development and in partnership with the Global Alliance for ICT and Development, the African Development Bank, and the Tunisian Union for Industry, Commerce and Handicraft, organized the second ICT4All Forum – Tunis+2 in Hammamet, Tunisia, from 20 to 21 November 2007, under the patronage of the President of Tunisia, Mr. Zine El Abidine Ben Ali. The Forum focused on the deployment of ICTs through public-private partnerships (PPPs), in line with paragraph 98 of the Tunis Agenda for the Information Society, which encourages the implementation of the Geneva and Tunis outcomes of the Summit through the promotion of multi-stakeholder partnerships, including PPPs. The event was attended by more than 600 participants, representing more than 30 countries. Participants included representatives from Governments, the business community, potential investors as well as international experts. The programme included, in addition to a technological exhibition, a ministerial segment and four thematic panels with the participation of eminent speakers (ministers, CEOs and international experts). The ICT4All Forum provided an opportunity for participants to share experiences with best practices in PPPs and to present models, approaches and national strategies for establishing PPPs.

# III. Implementation and follow-up at the regional and international level

## A. Implementation and follow-up at the regional level

12. United Nations regional commissions continue to support WSIS implementation through regional action plans.[6] A broad range of programme activities have been reported, including facilitation of the sharing of best practice experiences at the regional level, support to national Governments in policy development, e-service deployment, and capacity-building through the provision of

[5] Mande, Mike. "EASSy Project Secures $14 Million in Start-Up Funds", 3 December 2007 All Africa.

[6] See Report of the Secretary-General on promoting the building of a people-centred, development-oriented and inclusive information society" (E/CN.16/2007/2) for details.

guidelines, toolkits and methodologies, conferences, workshops, seminars, training, compilation and dissemination of statistics and sharing and dissemination of information. The regional commissions highlighted the importance of collaboration with other development partners such as international and regional organizations, the private sector and national Governments.

13. The regional commissions emphasized the importance of bridging the digital divide between and within their respective regions. One important initiative, led by the Economic and Social Commission for Western Asia (ESCWA), involves all the regional commissions in the creation of knowledge networks through ICT access points for disadvantaged communities The main objective of the initiative is to empower poor and disadvantaged communities by transforming selected existing ICT access points into hubs of knowledge and networking at the national, regional and global levels. These networks provide a platform for developing, disseminating and sharing knowledge pertinent to these communities in key areas of sustainable development such as employment, education, gender and health.

## 1. Africa

14. ECA continued to assist member States in their efforts to initiate, formulate and implement national e-strategies. In 2006–2007, 10 countries either initiated or consolidated their national ICT policymaking.[7] Three countries adopted their policies and started implementation.[8] The number of countries with ICT policies increased from 13 in 2000 to 35 in 2007. Regional and subregional programmes and activities focused on capacity-building, combating cybercrime and ICT applications.

15. In the area of capacity-building, the focus in 2007 was on the legislative body in Governments. In collaboration with the Parliamentary Forum of the Southern African Development Community (SADC) and the ECA subregional office for Southern Africa, the Economic Commission for Africa (ECA) facilitated a forum for Members of Parliament on “Building an Inclusive Information Society in the SADC Region”, which was attended by more than 40 parliamentarians representing 12 SADC member States. The main objective of the forum was to promote the use of ICTs at the parliamentary level as a tool for democratic governance.

16. In the area of cybersecurity, ICT experts from the Economic Community of West African States (ECOWAS) adopted “Guidelines on combating cybercrime” on 11 December 2007 in Lomé, Togo. These guidelines, developed by ECA in response to a request by ECOWAS and the West African Monetary Union (UEMOA), aim at modernizing the instruments for promoting e-commerce, preserving personal data and curbing cybercrime through subregional and national legislation. ECOWAS Heads of State are expected to adopt the guidelines as directives in 2008. ECA also assisted Burkina Faso, Ghana, Kenya and Mozambique in developing national cybersecurity frameworks.

17. To raise awareness about the information society and promote the sharing of good practice examples, ECA initiated several programmes in 2007. For example, the *Technology in Government in Africa (TIGA)* award, a joint initiative of ECA and the Government of Canada, recognized achievements that have led to changes at national, regional or provincial level. It covered four categories: public service delivery to citizens or communities; improved health services through the use of ICT; improved educational services through the use of ICT; and public-private partnerships in economic and financial e-services delivery. The *African Information Society Initiative (AISI) Media Awards* was an initiative supported by the Swiss Agency for Development and Cooperation (SDC), the International Development

[7] Cameroon, Democratic Republic of Congo, Chad, Liberia, Malawi, Niger, Nigeria, Rwanda, Sierra Leone and Togo.
[8] Burundi, Gambia, Swaziland.

Research Centre (IDRC) and the International Institute for Communication and Development (IICD). These awards were presented to African journalists to encourage more informed coverage of the information society and ICT for development issues in Africa. The *ICT Best Practice Forum*, which took place in Burkina Faso in June 2007, drew over 350 delegates from 60 countries across West and Central Africa, representing Government, the private sector, civil society, the press, and international financial and Government institutions. It presented a unique opportunity to build partnerships amongst all stakeholders.

18. In the area of *e-government*, ECA, in cooperation with the Mozambican Ministry of Science and Technology, the Canadian ePolicy Resource Centre (CePRC) and the Open Society Initiative for Southern Africa (OSISA), organized a workshop on ICTs, Gender and e-Government in Maputo, Mozambique from 28 – 30 May 2007. The outcome of the workshop was a framework for an African Action Plan for ICTs, Gender and e-Government. In *e-business*, ECA undertook a six-country[9] study on ICTs, trade and economic growth aimed at building capability and capacity in creating policy frameworks for use and adoption of ICTs in trade. In *e-health*, ECA, in collaboration with WHO and the Canadian Government, commissioned a joint regional needs assessment and scoping study on African Health Infoway: a district-based public health information network and geospatial health system for African health. The first report on the needs assessment undertaken in Kenya, Mozambique, Rwanda, Swaziland, Uganda and the United Republic of Tanzania was published in 2007. In *e-learning*, ECA launched the African e-Learning Initiative, which provided online courses on ICT policymaking. In *e-science*, ECA is organizing the "Science with Africa" conference in collaboration with the African Union

### 2. Asia and the Pacific

19. The Economic and Social Commission for Asia and the Pacific (ESCAP) continued to assist its member States with WSIS implementation and promoted exchange of best practices at the regional level, especially on creating an enabling policy and regulatory environment for the information society. In order to effectively coordinate activities at the regional level of all UN and international organizations, ESCAP co-organized the annual meeting of the Regional Interagency Working Group on ICT (IWG) jointly with the ITU and the Asia-Pacific Telecommunity (APT). Programme activities in 2007 focused on capacity-building in Internet governance, legal and regulatory frameworks, and space-based ICT tools for the detection and prevention of natural disaster and disease outbreak.

20. In response to requests from Pacific leaders at the Pacific Leaders Special Session (PLUS) during the 62nd session in 2006, ESCAP conducted a study, in cooperation with ITU and the Pacific Island Forum secretariat, on the role of a dedicated satellite system to connect less populated islands of Pacific countries. The Study was supported by the United Nations Office of the High Representative for Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States and the UNDP Office for South–South Cooperation. Its findings will be presented to the Pacific leaders in 2008. ESCAP facilitated the development of regional strategies for the provision of ICT access for disadvantaged communities, establishing community e-centres (CeCs) to provide increased accessibility to ICT and e-services to rural areas in Bangladesh, Bhutan, India and Nepal. A series of national and regional workshops were organized in Nepal, Lao People's Democratic Republic, Mongolia and Cambodia, which aimed at assisting policymakers in formulating and implementing essential public and other ICT policies relevant to Internet governance for socio-economic development.

[9] Egypt, Ethiopia, Ghana, Kenya, Senegal and South Africa.

21. Through multi-stakeholder partnerships with Governments, the private sector, other United Nations organizations, ADB and the ADB Institute, ESCAP undertook a wide range of activities related to ICT applications. In *e-commerce*, ESCAP organized the sixth international forum on online dispute resolution in Hong Kong, China, in December 2007. In *e-business*, ESCAP encouraged the sharing of good practices through a regional workshop and provided support to pilot projects in four countries[10] for the development of e-business services for small and medium-sized enterprises (SMEs). It also promoted entrepreneurship and e-business for women in rural cooperatives through regional workshops, training and developing guidebooks. In *e-learning,* ESCAP ran regional workshops to share good practice examples.

22. Satellite-based information and communication tools have been widely promoted in achieving WSIS goals. In preparation for the Third Ministerial Conference on Space Applications for Sustainable Development in the Asia and the Pacific, ESCAP developed a Strategy and an Action Plan for implementation of the Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP), incorporating WSIS-related outcomes in priority areas of disaster management, environment and natural resources management, education and health development. The main objective of RESAP is to promote regional cooperation for less capable countries to have better access to and use of space-based ICT tools to meet major internationally agreed development goals.

23. ESCAP organized a regional expert meeting on using space technology for avian influenza monitoring and early warning in Asia in 2007. The meeting agreed to establish a working group to further develop operational models for avian influenza monitoring and early warning by use of remote sensing and GIS technologies, and to develop a network mechanism of national avian influenza control authorities and technical supporting institutions, as the basis for an information system for avian influenza at the global/regional/subregional levels.

24. As requested in ESCAP resolution 63/10, ESCAP conducted a study to review the modalities for strengthening regional coordination and cooperation in natural disaster information management and early warning in the Asia-Pacific region, as well as assess the needs for and feasibility of establishing a regional centre for information, communication and space technology-enabled disaster management.

### 3. Western Asia

25. The Regional Plan of Action for Building the Information Society (RPoA) was expanded during 2007 with three additional projects proposed by the League of Arab States. Programme activities reported by ESCWA focused on efforts to bridge the digital divide; the legal and regulatory environment; and digital Arabic content (DAC).

26. During 2007, an Information Society Portal[11] was set up as a regional tool for follow-up on the implementation of RPoA. The portal, available in English and Arabic, included a database with country-specific information by theme. It was also designed to host real-time online working groups, facilitate the establishment of communities of practice, and promote partnerships. ESCWA produced the 2007 edition of the *Regional Profile of the Information Society in Western Asia*[12], which contains national profiles on all WSIS action lines as well as ICT advances related to achieving the MDGs. To assist with ICT policymaking, ESCWA published *Guidelines for the Formulation and Implementation of ICT Strategy* and facilitated

[10] China, Cambodia, Lao People's Democratic Republic and Viet Nam
[11] http://isper.escwa.org.lb/
[12] E/ESCWA/ICTD/2007/15, <http://www.escwa.un.org/wsis/profiles.html>

the establishment of two networks of ICT policymakers which aim at promoting regional and international cooperation, in particular South–South cooperation.

27. To promote regional coordination, ESCWA produced a study on models for cyberlegislation, which reviews the status of local and international laws governing cyberlegislation within the ESCWA region. A consultative meeting was held in Amman on 11–12 December 2007 to review the study and produce regional cyberlegislation templates as a step towards regional directives.

28. To meet WSIS goals of connecting villages by 2010, ESCWA initiated the Smart Community Project (SCP), an innovative mechanism for local resource development and job creation in rural communities. Pilot facilities, which combine a Multipurpose Technology Community Centre (MTCC) and an Agro-Food Processing Unit (AFPU), were successfully set up in Iraq, the Syrian Arab Republic and Yemen, with networking facilities hosted by ESCWA and connected to MTCCs in Lebanon. These facilities are connected with each other, as well as with other institutions such as universities and NGOs. Enterprise support schemes and specialized training courses were provided to the rural communities based on the SCP model. These schemes target the use of new technologies for employment creation, micro and small enterprises profitability, productivity improvement and poverty alleviation.

29. ESCWA made significant efforts to promote DAC. An assessment of the status of DAC in the region was carried out, to examine opportunities, priorities and strategies. ESCWA provided financial support for the incubation of selected projects by young entrepreneurs. During 2007, ESCWA continued to be involved in the development of an Arabic Domain Names System (ADNS). It joined forces with the Arab Working Group on Arabic Domain Names to assess pilot projects in the region for the development of an ADNS, presenting its findings at several international events organized by ITU, UNESCO, the League of Arab States and the Internet Governance Forum, as part of ESCWA's efforts to ensure global interoperability of the ADNS. ESCWA launched a project for the promotion of ADNS in May 2007 and provided important inputs to the deliberations of the Working Group. ESCWA also supported a regional consortium of country code top-level domains (ccTLD) operators in the Arab region.

### 4. Latin America and the Caribbean

30. Implementation of the 2005–2007 Regional Action Plan (eLAC2007) was highly successful. Many countries in the region have developed ICT strategies or agendas, using eLAC as their model. A subsequent 2008–2010 Action Plan, eLAC2010, was adopted at the Second Ministerial Conference on the Information Society in Latin America and the Caribbean[13], which took place in San Salvador from 6 to 8 February 2008.

31. During the Ministerial Conference, delegates reviewed progress made towards implementing eLAC2007 and adopted eLAC2010, which comprises 83 goals. Some 20 per cent of the goals in both Action Plans remain similar, while 30 per cent of the goals are completely new on the agenda and half of the goals have been adjusted. For instance, while eLAC2007 sought to connect one third of public schools and libraries to the Internet or double the number then connected, eLAC2010 seeks to connect 70 per cent of public educational institutions or triple the number connected as of 2007. The Conference, which brought together over 250 decision-makers, also set up a new follow-up mechanism. A new board of directors was elected, presided over by El Salvador, with subregional representation from Argentina, Trinidad and Tobago, and Peru. This new mechanism will include a second level of thematic

[13] http://www.elac2007.org.sv/

coordination, for each of the chapters in eLAC2010, to be led by Cuba (on education), Costa Rica (infrastructure and access), Mexico (health), Peru (public administration), Uruguay (production sectors), and Bolivia (policy and strategy tools).

32. In the process leading up to the Conference, the Economic Commission for Latin America and the Caribbean (ECLAC) has initiated since 2006 a series of consultations with experts from Government, academia, the private sector and civil society. The outcome of the consultations was the *eLAC Policy Priorities Delphi*[14]**,** which forms the basis of the concrete policy recommendations that now make up eLAC2010. Experts throughout the region made 1,454 contributions and 14 international organizations contributed actively through both online and offline consultations. A breakdown shows that 39 per cent of participants represent the private sector; 25 per cent the public sector, 24 per cent academia and 12 per cent civil society.

33. To monitor progress towards eLAC2007, ten Working Groups were set up with multi-stakeholder leadership. GroupSpace, an electronic interactive platform, was used extensively by the Working Groups and the Regional Follow-up Mechanism.

34. Key efforts have been undertaken by the Observatory for the Information Society in Latin America and the Caribbean (OSILAC), including a report entitled *Monitoring eLAC2007*, released in August 2007. The report concluded that significant progress had been made on 15 of the 27 quantifiable goals in eLAC2007, with moderate to insufficient advances on the remaining 12 goals. Significant progress was made in digital access and inclusion in community centres and local government; capacity-building and knowledge creation in research and education networks; governmental transparency and efficiency in e-government and e-education; the development of indicators and measurement as policy instruments, and monitoring of WSIS and the execution of eLAC2007. Areas lacking progress were digital access and inclusion in online health centres; capacity-building and knowledge creation in science and technology; governmental transparency and efficiency in e-health and disasters; and financing, universal access policies and legislative frameworks as policy instruments.

35. To facilitate implementation, eLAC2010 assigned specific goals to relevant stakeholders who were already active players in the region. Over 88 entities have been identified as responsible for the implementation of one or more goals in the Action Plan. Delegates at the Ministerial Conference asked for the continued technical support of ECLAC in monitoring implementation.

36. During 2007, ECLAC organized a series of four seminars in Santiago from 10 to 14 September 2007, which brought together more than 500 stakeholders representing Government, NGOs and the private sector. These seminars were on e-Government Interoperability, Latin American Encounter of Telecenters and Social Inclusion 2007, Multi-stakeholder Consultation, and the Millennium Goals and ICT.

### 5. Europe and the ECE region

37. All countries in the region progressed towards a knowledge-based economy. However, ICT development remained uneven across Eastern Europe, the Caucasus and Central Asia (EECCA) and the Western developed countries.

38. In the EU, liberalization and harmonization policies and policy actions targeting ICT markets have brought noticeable benefits, including reduction of barriers to market entry; harmonization of national regulatory frameworks, public support and encouragement of research and development in the area of ICT, and

[14] http://www.cepal.org/id.asp?ID=29955

implementation of public projects that had a strong impact on the ICT market as a whole. Further, regulatory changes and policies to promote network interconnection and the application of technologies allowing for interoperability between different devices and equipment have encouraged a convergence of markets and the emergence of new generation of telecommunication networks and technologies. Policies and programmes aimed at overcoming the digital divide, such as e-education, e-accessibility, e-health, e-governance, e-justice and e-environment, have provided incentives for electronic equipment producers, network operators and service providers to invest in upgrading and development of new products and services.

39. In the transition economies, priority areas include (a) creating and improving ICT legislation; (b) building up and extending ICT infrastructure; (c) developing human resources (e-education, e-literacy); (d) improving information security; and (e) promoting e-government. The Economic Commission for Europe (ECE) contributes to the WSIS implementation process largely through the promotion of regional cooperation. ICT applications are also a fundamental part of ECE activities at the subprogramme level, especially those related to environment, trade, transport, statistics, economic cooperation and integration, and a gender-sensitive information society.

40. In 2007, the ECE Working Group on Environmental Monitoring and Assessment established a task force to: (a) review the collection of meta information on available sources of environmental information and activities in countries in the Eastern Europe, Caucasus and Central Asia (EECCA) region; (b) develop practical tools and instruments using modern information technologies to improve the use and exchange of information in these countries; and (c) harmonize their approaches with those applied within the European Environment Agency (EEA) networks.

41. A major step towards paperless trade was made with the publication of the electronic Cross Industry Invoice and the Business Requirements Specification of the United Nations electronic trade documents project, UNeDocs. Considerable progress was made in making border crossings easier, faster and more secure through the computerization of *Transports Internationaux Routiers* (TIR) carnets, over three million of which are issued every year. ECE also supports national statistical offices of member States in applying complex metadata-related standards with a Common Metadata Framework.[15]

42. Within the framework of the Working Group on ICT under the Special Programme for the Economies of Central Asia (SPECA), several regional capacity-building seminars on ICT policymaking were organized jointly with ESCAP. ECE continued to promote gender mainstreaming in ICT strategy and action plans at regional and subregional levels through training workshops, and supported capacity-building within National Statistical Offices to develop gender-disaggregated data related to ICTs.

## B. Implementation and follow-up at the international level

### 1. Economic and Social Council

43. The Economic and Social Council adopted two decisions[16] on 26 April 2007 spelling out the modalities of participation by civil society and business entities in the work of the CSTD. According to the decisions, NGOs and civil society entities which do not have consultative status with the Council but are accredited to WSIS

[15] http://www.unece.org/stats/cmf/
[16] 2007/15, and 2007/16

may on an exceptional basis participate in the next two sessions of the Commission, on the understanding that they apply for consultative status with the Council. Similarly, business-sector entities that had been accredited to WSIS may participate in the Commission on an exceptional basis, without prejudice to the established rules of procedure, and the Economic and Social Council shall review in 2010 the list and the modalities of participation of business-sector entities.

44. Economic and Social Council resolution 2007/8 requests open channels of communication to be established between all stakeholders and United Nations regional commissions and action line facilitators, to ensure that implementation efforts are appropriately reflected in the inputs to the annual report of the Secretary-General on system-wide implementation of WSIS outcomes.

### 2. General Assembly

45. At its sixty-second session, the General Assembly adopted resolution 62/182, entitled "Information and communication technologies for development", in which it reaffirmed the strong development orientation of the outcomes of WSIS and urges their full implementation. The same resolution also requested the Secretary-General to submit the present report to the General Assembly at its sixty-third session, through the Economic and Social Council.

### 3. United Nations Group on the Information Society (UNGIS)

46. UNGIS, currently chaired by UNESCO, held its second meeting on 17 July 2007, with representatives from FAO, ILO, ITU, OECD, UNCTAD, UNESCO, UN-HABITAT, UNHCR, UNIDO, UNITAR, UNRWA, UNWTO, UPU, WIPO and WMO. Participants recognized the importance for coherence in WSIS implementation and follow-up, as well as the role of UNGIS in this regard. Participants reported on the cluster of WSIS-related events in Geneva in May 2007 and reviewed progress in implementing the UNGIS workplan. The meeting decided to focus its work for the coming twelve months on community access, capacity-building and cybersecurity in order to highlight accomplishments and make recommendations outlining a common United Nations approach. Participants decided to hold the next annual meeting of UNGIS during the cluster of WSIS-related events in 2008 in Geneva. UNDP decided to withdraw from the agreed rotation of the Chair of UNGIS between ITU, UNESCO and UNDP, starting from May 2008.

### 4. Civil society, business and multi-stakeholder partnerships

47. The Association for Progressive Communications (APC) convened a "Civil Society Workshop on Open Access to ICT Infrastructure in Africa" on 28 October 2007 in Kigali to coincide with the Connect Africa Summit. Participants highlighted the important role of private investment and public-private partnerships in developing ICT infrastructure in Africa, calling for new forms of corporate governance that would ensure the interests of all stakeholders but above all the interest of African consumers and citizens. They encouraged Governments to support harmonization of policy and regulation by adopting regional instruments and structures to manage and support the development and implementation of cross-border connectivity. Participants underlined that governmental interventions and initiatives should be implemented with the participation of all relevant stakeholder groups from civil society, communities and the private sector. They called for greater participation of recipient communities in access initiatives, for transparency in the selection of universal access projects and in the allocation of funds, and for consistent monitoring and evaluation of such projects. Finally, they called for a concrete initiative around the collection of industry and consumer-oriented

information to be made publicly available, on which future recommendations could be based.[17]

48. In May 2007, APC and the Instituto del Tercer Mundo launched the *Global Information Society Watch Report 2007*, the first in a series of annual reports that examines ICT policy at local and global levels, in particular how policy impacts on the lives of people living in developing countries[18].

49. The third Global Knowledge Conference (GK3), organized by the Global Knowledge Partnership from 11 to 13 December 2007 in Kuala Lumpur, Malaysia, gathered over 1,700 global visionaries, innovators, practitioners and policymakers to discuss the development and human dimension of ICT. GK3 successfully engaged participants in intensive discussions on emerging peoples, markets and technologies[19].

50. In 2007l, GAID launched several Flagship Partnership and Advocacy Initiatives aimed at accelerating connectivity and access in Africa; enhancing and scaling up the telecentre movement; promoting assistive technologies for persons with disabilities; and advocating for free Internet accessibility for schools. GAID created several Communities of Expertise that bring together motivated and capable actors to address specific, well-defined problems and identify and disseminate good practices along GAID's focus areas, i.e. education, health entrepreneurship and governance as well as in cross-cutting themes such as gender, youth, local and regional authorities, local content and rural development. Further, GAID intends to create a Cyber Development Corps based on South─South and triangular cooperation.

51. In addition, GAID launched regional networks for Asia and the Pacific, Europe, Africa, and countries in transition, as well as stakeholder networks composed of representatives from civil society, youth and persons with disabilities. A GAID Regional Network for Latin America and the Caribbean was to be launched in February 2008 in San Salvador, El Salvador.

52. GAID organized a Global Forum on Youth and ICT on the theme "Youth as agents of change" in Geneva from 24 to 26 September 2007. Attended by more than 500 participants, the Forum engaged the youth in discussions with their peer representatives, policymakers and technology leaders in exploring ways to empower the community and to participate more fully in society through the appropriate and responsible use of ICT. The Forum also provided a platform to showcase youth-led initiatives and created a space to foster adult-youth cooperation to encourage the inter-generational transfer of skills and resources. Some 30 partners, including DESA, ITU, UNESCO, ILO, WHO, UNFPA, HABITAT, Intel, Microsoft and civil society organizations, contributed to the organization of the Forum.

53. The Paris-based International Chamber of Commerce (ICC) was a privileged interlocutor in WSIS and remains a privileged interlocutor in the implementation and follow-up process. ICC has launched the Business Action to Support the Information Society (BASIS) initiative, which serves as a communication and advocacy vehicle for global business priorities on Internet Governance and ICTs for development issues.

### 5. United Nations entities

54. A wide range of programme activities have been reported by entities in the United Nations system in WSIS implementation and follow-up. In carrying out

[17] Full statement available at http://www.apc.org/english/news/index.shtml?x=5262405
[18] Full report available at http://www.globaliswatch.org/download
[19] More at http://www.gkpeventsonthefuture.org/gk3/

these activities, United Nations entities have worked closely with national Governments, regional commissions and other stakeholders, including NGOs and the private sector. Several entities have reported on institutional mechanisms to facilitate effective implementation. For example, to strengthen the CSTD Secretariat, especially in its substantive servicing of the Commission with its new mandate of WSIS follow-up, the UNCTAD Secretary-General decided to move the science and technology-related work programme under one umbrella with the ICT-related work within UNCTAD, to form a new Branch entitled "Science, Technology and ICTs". The United Nations Secretary-General entrusted DESA to oversee and manage the Secretariats of the Internet Governance Forum (IGF) and of GAID.

55. WSIS implementation continues to be one of the priorities of the ITU Secretary-General, according to the Strategic Plan (2008–2011) adopted during the Organization's Council meeting in 2007. Council 2007 also strengthened the Union's mandate in relation to WSIS implementation.[20] .To ensure the effective coordination of ITU's strategies and activities in relation to WSIS, a WSIS Task Force was established under the chairmanship of the Deputy Secretary-General. UNESCO's Medium-term Strategy 2008–2013 (34C/4) and its Programme and Budget 2008–2009 (34/C5) for the next biennium, as approved by the 34th session of the General Conference, draws heavily on WSIS outcomes, integrating them in the Organization's work plan. Within UNESCO, the effective coordination between different sectors is ensured by the Task Force on Knowledge Societies, chaired by the Director General.

*a. Implementation of action lines and main themes*

**The role of public governance authorities and all stakeholders in the promotion of ICTs for development (C1)**

56. The United Nations Department of Economic and Social Affairs (DESA), in collaboration with all interested stakeholders participating in the network of WSIS action line C1, began the process of building partnerships to develop a global Internet-supported knowledge base on electronic and mobile government. In this context, DESA initiated a series of discussions with regional partners to facilitate the development of regional knowledge bases that would provide inputs for a global knowledge base. Meetings were held in Vienna (Austria), San Salvador (El Salvador), and Jeju (Republic of Korea) that focussed on the development of regional knowledge bases for the following regions: Africa, Asia and Pacific, Arab States, and Latin America and Caribbean. In addition, in partnership with the Open City Network, a knowledge base for local government in the United Kingdom is being implemented.

57. In collaboration with the Inter-Parliamentary Union (IPU) and the Global Centre for ICT in Parliament, DESA organized the World e-Parliament Conference 2007 to address the promises and challenges of ICT in parliament. Working together with the Global Centre for ICT in Parliament, DESA also launched the Global Network of IT Experts in Parliament, which serves as a knowledge platform for the exchange of information on the use of new technologies to strengthen parliamentary institutional and organizational capabilities. Preparations are currently under way to establish an African Parliamentary Knowledge Network (APKN), a mechanism for coordination among parliamentary administrations in their various areas of responsibility, including legislation, information, research, documentation and technologies.

58. DESA, IPU and the Global Centre for ICT in Parliament launched the *World e-Parliament Report 2008*. This publication provided an opportunity to share lessons

[20] Resolution 1282.

learned and good practices from different regions of the world. It is based on information gathered from a survey on the use of ICT in parliament that was conducted in 2007 and drew on experiences exchanged during the World e-Parliament Conference 2007. The Report represents a first effort to establish a baseline of how parliaments are using, or planning to use ICT, to help them fulfil their responsibilities and to connect to their constituencies. Information and communication infrastructure (C2)

59. ITU continued to be at the forefront of providing global standards for telecommunication. The most important standardization activities were related to Next Generation Networks (NGN), with the approval of specific standards on signalling protocols for QoS resource control, security, multimedia services over NGN, fixed-mobile convergence, service-level requirements and architectural framework to provide new services based on Internet Protocol Television (IPT). Charging and accounting principles for NGN, including related telecommunication, economic and policy issues, continue to be studied at international and regional levels.

60. Recommendations approved by the 2007 World Radio Conference would facilitate access to the orbital/spectrum resources and related applications for a broader range of users.

61. ITU undertook several initiatives, including the harmonization of ICT policies in three regions[21]; the launch of a virtual space dedicated to the thematic ICT infrastructure initiatives;[22] comprehensive research work on the ICT broadband infrastructure in Africa; capacity-building activities on ICT policies in the Pacific Island States; and a regional project on ICT applications and satellite diversity in the Pacific Island States.

62. Building on the success of the Connect Africa Summit, ITU is planning to organize the next regional Summit in the Asia-Pacific region in late 2008.

**“Access to information and knowledge” (C3)**

63. UNESCO continued implementation of the Memory of the World Programme for the protection of documentary heritage, both analogue and digital, to encourage wider access to local content. It organized the thirteenth meeting of the Bureau of the Intergovernmental Council for the Information for All Programme (IFAP), the objectives and activities of which dovetail with those of WSIS. The Bureau decided to fund a global scaled-up project on information literacy and agreed on a series of regional workshops on information literacy and information ethics.

64. As part of its work on standards development for telecommunications equipment, software and associated telecommunications services, ITU published a telecommunication accessibility guidelines and an accessibility checklist for the standards community to ensure that they take into account, at an early stage, the needs of those for whom accessibility to ICTs may be restricted[23]. ITU collaborated with academia and Universities by organizing a series of forward-looking conferences on standardization related issues.[24]

**Capacity-building (C4)**

65. Most technical cooperation activities reported by entities included a capacity-building component in their areas of competencies. A new Global Capacity-Building Initiative (GCBI) was launched in 2007 by ITU with *Info*Dev and the World Bank.

[21] Sub-Saharan countries, Caribbean countries and Pacific Island States.
[22] See: http://www.itu.int/jive/index.jspa?categoryID=159
[23] See: http://www.itu.int/ITU-T/studygroups/com16/accessibility/
[24] See: http://www.itu.int/ITU-T/uni/kaleidoscope/

The Initiative included targeted, client-oriented capacity-building activities for policymakers and regulators from developing and least developed countries.

66. ITU, UNCTAD and DESA organized workshops and trainings on a wide range of topics, including ICT and telecommunication regulations and policy, rural communications, spectrum management and standardization, ICT policies, information economy, and e-commerce legal issues. Some of the workshops and training courses were undertaken electronically, such as through UNCTAD's Virtual Institute, or ITU's public digital library. ITU also engaged in the formulation and implementation of various human capacity-building projects, such as the rehabilitation and reconstruction of the Information and Communication Training Institute (ICTI) in Kabul, Afghanistan.

**Building confidence and security in the use of ICT (C5)**

67. A significant event was the launching of the *Global Cybersecurity Agenda* (GCA) on 17 May 2007 by the ITU Secretary-General. The GCA, a framework for international cooperation in cybersecurity[25], is made up of seven main strategic goals[26] and builds upon the following five pillars: (1) legal measures; (2) technical and procedural measures; (3) organizational structures; (4) capacity-building; and (5) international cooperation. GCA will build on existing national and regional initiatives to avoid duplication and encourage collaboration amongst all relevant partners. A high-level expert group comprising renowned experts from Governments, industry, relevant regional/international organizations, academic and research institutions and other experts from different regions of the world was subsequently established to advise the ITU Secretary-General on implementation strategies.

68. ITU set up a new study group on "Securing information and communication networks: Best practices for developing a culture of cybersecurity". As part of this Group's activity, the *Report on Best Practices for a National Approach to Cybersecurity* was developed, outlining a framework for organizing a national approach to cybersecurity. The ITU Cybersecurity Work Programme outlined a series of regional capacity-building events on frameworks for cybersecurity and critical information infrastructure protection (CIIP).[27] It also released the National Cybersecurity/CIIP Self-Assessment Toolkit and the Botnet Mitigation Toolkit.[28] In addition, ITU has developed an ICT Security Standards Roadmap to assist in the development of security standards by collecting information on existing standards and current work in key standards development organizations.[29]

**Enabling environment (C6)**

69. Key publications were released in 2007, including the eighth edition of *Trends in Telecommunication Reform*, and the *Road to Next Generation Networks (NGNs)*. New modules have been included in the ITU/*Info*Dev ICT Regulation Toolkit, a Web-based tool, which provided the latest updates on regulatory topics, best practices and case studies. The Seventh Global Symposium for Regulators (GSR), which took place in Dubai from 5 to 7 February 2007, focused on the best practice guidelines needed to facilitate the migration of NGNs.

70. ITU continued to carry out studies and established recommendations on questions related to the broad aspects of spectrum management. The improvement

[25] See: http://www.itu.int/cybersecurity/gca/
[26] See: http://www.itu.int/osg/csd/cybersecurity/gca/goals.html
[27] See: http://www.itu.int/ITU-D/cyb/events/
[28] For more details, see http://www.itu.int/cyb
[29] See: http://www.itu.int/ITU-T/studygroups/com17/ict/index.html

of the international spectrum regulatory framework was considered during the 2007 World Radiocommunication Conference.

71. UNCTAD continued to assist countries with ICT policies and strategies for the creation of a competitive information economy. This includes support in designing, implementing and reviewing national ICT plans. As a result of its activities in Lao People's Democratic Republic and Cambodia, both countries are expected to have enacted e-commerce legislation in compliance with the e-ASEAN initiative by 2008. UNCTAD also provided assistance to the East African Community (EAC) to help member States harmonize their regional e-commerce legislation. In addition, work commenced in 2007, in collaboration with the Asociación Latinoamericana de Integración (ALDI), towards harmonization of cyberlegislation at the regional level.

**Cultural diversity and identity, linguistic diversity and local content (C8)**

72. At UNESCO headquarters in Paris in October 2007, UNESCO and the United States Library of Congress signed an agreement to join forces to build a World Digital Library, to digitize unique and rare materials from libraries and other cultural institutions around the world and to make them available free of charge on the Internet. These materials include manuscripts, maps, books, musical scores, sound recordings, films, prints and photographs. The prototype functions in Arabic, Chinese, English, French, Russian, Spanish, and Portuguese. It was developed by the Library of Congress and UNESCO with five other partner institutions, namely, Bibliotheca Alexandrina, the National Library of Egypt, the National Library of Brazil, the National Library of Russia, and the Russian State Library.

**"Media" (C9)**

73. UNESCO established indicators of media development as a significant contribution to this action line. It carried out a series of activities related to media education, including the development of a comprehensive model curricula for journalism education, which was validated at the World Congress on Journalism Education in June 2007; the establishment of quality criteria for media training institutions that focused on African media training institutions; and the launching of the first comprehensive media education module for teachers, students and parents in June 2007.

74. Moreover, UNESCO helped set up Community Media Centres (CMCs) in 25 countries with 130 pilot projects, training nearly 1500 community media workers in local content development. Capacity-building projects on media pluralism cover 80 countries. UNESCO provided support to the fifth World Congress on Science Communication held in 2007 in Melbourne, Australia where science journalists from more than 60 countries discussed ways and means of popularizing science journalism in developing countries.

**“Ethical Dimensions of the Information Society” (C10)**

75. In 2007, UNESCO initiated a series of regional Info-Ethics Conferences, which took place in December 2006 for Latin America and the Caribbean and in 2007 for the African continent and for the European region. These events were designed to provide a platform for reflection and debate on the ethical, legal and societal aspects of the information society by bringing together participants representing a wide range of educational, scientific, cultural and social environments.

**ICT applications (C7)**

**E-government**

76. DESA developed a series of products and tools on e-government, including the *United Nations e-Government Survey*, which ranks the 192 member States according to their e-government readiness and quantitatively assesses the strengths and weaknesses of e-government initiatives worldwide; a *Compendium of Innovative E-Government Practices*, which highlights more than 300 cases of innovation in e-government; a *Compendium of ICT Applications on Electronic Government: Volume 1*, which focuses on more than 130 software products and applications from developed and developing countries for education and health; two fully fledged online training courses, *E-Knowledge Management in Government* and *E-Government: What a Government Leader Should Know*, which was revised extensively in 2007 and an interactive format developed; and, in collaboration with the State University of New York at Albany and Microsoft, METER2, a ready-to-use interactive Web-based tool to assist Governments in monitoring and refining the enabling environment for e-government.

77. DESA also carried out several e-government projects in the Caribbean region, including the Caribbean Technical and Advisory Support Facility (TASF), a Caribbean E-Government Knowledge Bank hosted by UNPAN, and a cooperative project with the OAS, ICA/IDRC, CIDA and CARICAD that will lead to the transfer and implementation process of Jamaica’s Customs Automated Services (CASE) solution in Antigua and Barbuda. At the national level, DESA worked with national Governments on e-government solutions in Belize, Morocco, Saint Lucia, and Saint Vincent and the Grenadines, and Lesotho.

78. The UNCTAD customs reform and automation programme, Asycuda, underwent a system upgrade in 2007 and was expanded to include new members, including the Palestinian Authority, the Commonwealth of Puerto Rico, and the Governments of Georgia, Yemen and Zimbabwe, Haiti, Côte d’Ivoire, Jordan, Lebanon and the Syrian Arab Republic. The Asycuda system went live in the Democratic Republic of Congo, Eritrea, St. Vincent and the Grenadines, Seychelles, and Trinidad and Tobago. In 2007, Asycuda also created regional support and maintenance centres to facilitate regional integration.

**E-business**

79. UNCTAD continued to support the efforts of developing countries in e-business development, in particular among SMEs, in sectors of economic importance and with export capacity, through a mix of sector-specific policies, training programmes and deployment of ICT tools, taking into account local and national specificities. UNCTAD’s *Information Economy Report 2007* studies trends in e-business and the appropriate policy environment with a view to increasing diffusion of ICTs in business and their positive impact on enterprise competitiveness. In March 2007, UNCTAD organized a subregional ministerial conference on “Asia-Pacific: E-tourism for growth: Matching market efficiency and

social inclusion", which was attended by representatives of 22 countries as well as from ESCAP, UNDP, UNWTO, ADB and several development agencies.

80. A report entitled *E-shopping through posts: A key opportunity for the postal sector in the Information Society* was released by the Universal Postal Union (UPU), which identified ways the postal sector and the UPU could contribute to the growth of e-business. In April 2007, the UPU approved The *UPU E-services strategy: Facilitating communication between the inhabitants of the world***,** expected to be implemented through an action plan to be approved by the UPU Congress in August 2008.

81. Moreover, UPU signed a memorandum of understanding with ITU in July 2007, to enhance cooperation and coordination between the two Organizations. Common projects are under way in Afghanistan, Nepal, Bhutan and Southern Africa with the objective of enhancing the physical infrastructure of the postal network with ICT connectivity and related training using post offices as telecentres. Priority attention was given to the development of the UPU worldwide electronic payment network in Africa. Altogether, 29 African countries are currently equipped with UPU International Financial System (IFS) applications.

82. In addition, UPU works closely with the International Fund for Agricultural Development (IFAD) and the International Organization for Migration (IOM) to make available affordable remittances for migrants based on advancements in ICT in the postal network. UPU, UNCTAD, WCO and the International Air Transport Association (IATA) work closely together to ensure that interoperability of transportation and customs clearance systems help remove barriers to cross-border movements related to e-commerce growth.

**E-health (C7)**

83. The WHO Global Observatory on e-Health continues to monitor, analyse and report on developments and trends in e-health worldwide. Plans call for the second global survey on e-health to be conducted in 2008 and the results published in early 2009. It will build on the first edition and explore in greater detail such areas as policy, partnerships, infrastructure, funding, capacity-building and the adoption of e-health applications. The next two years will also see the extension of the Observatory's operational structure, with the establishment of national observatories in participating countries. They will partner with the Global Observatory to monitor and report e-health developments at the national level as well as promote findings to key country stakeholders.

84. A number of WHO programmes, undertaken in partnership with the private sector, respond to the call for improving access to the world's health information. Chief among them is the Health InterNetwork Access to Research Initiative (HINARI),[30] which provides free or low-cost online access to major journals in biomedical and related social sciences to local, not-for-profit institutions in developing countries. As of January 2008, more thabn 70 publishers had provided access to their content in HINARI.

85. To improve health information systems, WHO set up the Health Metrics Network (HMN)[31] and the planned African Health Infoway,[32] in partnership with member States, other international organizations and the private sector. An important milestone for strengthening health information systems was reached when the World Health Assembly, in May 2007, called on health information and

[30] http://www.who.int/hinari/en/

[31] www.who.int/healthmetrics

[32] www.who.int/kms/initiatives/ahi/en/index.html

statistical communities, international organizations, global health initiatives and other stakeholders to "provide strong, sustained support for strengthening health information systems, including use of the standards and guiding principles set out in the Framework of the HMN". During 2007, HMN developed the second edition of its *Framework and Standards*, which is increasingly adopted as a technical guide. So far, 62 countries have received grants for intensified efforts to strengthen their health information systems with HMN and partner support.

**E-learning**[33]

86. During 2007, UNESCO supported e-learning initiatives in Africa, the Arab States, Asia and the Pacific, Europe, Latin America and the Caribbean, for both formal and non-formal education. UNESCO offered capacity development opportunities on the use of ICT for education, targeting Ministries of Education (including ministers, policymakers and planners), higher education institutions (including deans of faculties and teacher education institutions), teachers in classrooms, and educators in community learning or multimedia centres.

87. At the end of 2007, UNESCO announced the launch of its ICT Competency Standards for Teachers, which define the range of skills needed for teachers to effectively integrate ICT into the teaching/learning processes. The Standards also provide modules for such training. The project stems from the close multi-stakeholder collaboration between UNESCO, Microsoft, Cisco and Intel, the International Society for Technology in Education, and the Virginia Polytechnic Institute and State University. In March 2007, UNESCO launched an online collaborative knowledge hub for training and capacity-building resources for development. The hub provides a resources directory with relevant resources on local development and poverty reduction, pooling 1700 free training resources from over 630 development stakeholders, including all United Nations agencies.

**E-environment**

88. The World Meteorological Organization (WMO) reported on the development of a coordinated global information infrastructure, the WMO Information System (WIS) as an important initiative to use ICTs to monitor, prevent and mitigate natural disasters. WIS builds on the most successful components of existing WMO information systems, and is expected to be a major component of the Global Earth Observation System. The Global Telecommunication System (GTS), the core network for the exchange of time-critical and operation-critical data within the framework of the WIS, will be implemented and operated by WMO member States.

89. The WIS/GTS is designed as the 24/7 operational backbone network for the exchange of data and information in support of multi-hazard, multi-purpose natural disaster early warning systems. In the Indian Ocean, several GTS centres' systems were upgraded and training activities organized to provide an effective support to the operation-critical exchange of multi-hazard warnings, especially for tsunamis and tropical cyclones.[34] In 2007, several WMO member States implemented pilot project and prototypes for data recovery, access and retrieval services. The project is expected to be operational from the end of 2008.

**E-agriculture**

90. As a follow-up to the open survey on e-agriculture in 2006[35], FAO launched the first phase of the e-Agriculture Community of Expertise, a global initiative designed to enhance sustainable agricultural development and food security by

[33] See also C4.

[34] Including Madagascar, Tanzania, Kenya, Pakistan, Maldives, Sri Lanka, Bangladesh, Myanmar, Thailand and Indonesia.

helping stakeholders share experiences and best practices on information exchange, communication, and the use of associated technologies in the sector.

91. Since its launch in September 2007, the Community has grown to encompass over 3,000 stakeholders from more than 100 countries, representing policymakers, planners, development practitioners, farmer organizations, researchers and information and communication specialists involved in agriculture and rural development**.** Community members interact with each other and contribute a range of resources in the form of case studies, success stories and lessons learned documents, publications, links, learning resources, and news and announcements. The Community is coordinated by the e-Agriculture Working Group (EAWG),[36] and FAO manages the development, editorial content, and maintenance of the Web-based platform. Regular bulletins of outputs of the e-Agriculture Community are provided to relevant stakeholders. Resources are being mobilized to support the Community's activities from the stakeholders themselves and a variety of donors.

92. An "e-Agriculture Week" was organized from 21 to 28 September 2007, highlighting the role of information, communication and knowledge management in agriculture and rural development and allowing participants to interact in discussions related to technologies, policy and sharing of expertise. One of the main open events during this week was a conference on *Web2ForDev: Participatory Web for Development*, initiated by a partner, CTA, and organized by FAO and with a number of collaborating organizations.[37] This event explored how stakeholders in agriculture, rural development, and natural resource management could exploit opportunities provided by Web 2.0 methods, approaches and applications.

**Internet governance**

93. The IGF held its second meeting[38] from 12 to 15 November 2007 in Rio de Janeiro. The meeting focused on seven themes: (1) critical Internet resources; (2) openness; (3) security, (4) diversity, (5) access; (6) taking stock and the way forward; and (7) emerging issues. There was general consensus that the IGF presented all stakeholders with a unique opportunity to exchange views on those themes.

94. The session on critical Internet resources covered a wide range of issues related to the infrastructure of the Internet. Participants discussed the role of the Internet Corporation for Assigned Names and Numbers (ICANN) and Governments, as well as Internet oversight. Participants underlined the importance of cybersecurity, especially with respect to child protection and child pornography on the Internet. They called for harmonization of legislation between countries and for the entry into force of new legal instruments that apply to the online environment. In addition, participants stressed the need for innovative methods to get the next billion people online. This also brought to the fore the issue of diversity, where participants underscored the importance of a multilingual Net with additional IDNs (Internationalized Domain Names) to reflect the expanding trends of Internet users in non–English-speaking parts of the world. The link between Internet governance and sustainable development emerged as a new issue. Participants addressed the

[35] www.e-agriculture.org

[36] Members include the following: Consultative Group on International Agricultural Research (CGIAR); Technical Centre for Agriculture and Rural Development (CTA); United Nations Department of Economic and Social Affairs (DESA); FAO; Gesellschaft fur Technische Zusammenarbeit (GTZ); Global Forum on Agricultural Research (GFAR); Inter-American Institute for Cooperation on Agriculture (IICA); International Association of Agricultural Information Specialists (IAALD); International Centre for Communication for Development (IICD); International Fund for Agricultural Development (IFAD); International Telecommunications Union (ITU); World Bank.

[37] IICD, GTZ, CGIAR, Euforic, IAALD, APC, ACP secretariat, IFAD, UBC and UCAD

[38] See http://www.intgovforum.org/Rio_Meeting/Chairman%20Summary.FINAL.16.11.2007.pdf for summary report.

environmental impact of ICTs, as well as the positive contribution the Internet could make in the fight against climate change.

95. The IGF meeting was attended by 1,363 participants from 109 countries, with a notable increase in the number of participants from developing countries. Remote participants had the opportunity to participate, via online chat, email, discussion boards and blogs. There were 1,172 distinct IP addresses that accessed the Webcasts of the sessions, indicating a growing remote audience for the IGF meetings. The stocktaking process for the Rio meeting started with an online form available on the IGF Website. Subsequently, a stocktaking meeting of the IGF took place in Geneva on 26 February 2008. The preparatory process will continue with another round of open consultation in Geneva on 13 May 2008 to discuss the agenda and the programme for the third meeting of the IGF, scheduled to take place in India in December 2008.

**Enhanced cooperation**

96. The *Tunis Agenda on the Information Society* requested the Secretary-General to proceed with regard to the process towards enhanced cooperation on public policy issues pertaining to the Internet.[39] The Secretary-General started this process by giving a mandate to his Special Adviser for Internet Governance, Mr. Nitin Desai, to consult with representatives of all stakeholder groups – government, the private sector and civil society, as well as the technical and academic communities – in order to find common ground on the issue. In September 2006, Mr. Desai submitted a report with the results of those consultations. The report noted that the consultations had elicited a range of different views on the implications of what had been agreed at Tunis on the topic and that there was little common ground between the main actors.

97. In August 2007, after being given a mandate by the Secretary-General, the Under-Secretary-General of the United Nations Department of Economic and Social Affairs (UNDESA) continued the consultation process, especially on the next steps to be taken. In light of the continuing differences of views on the interpretation of the *Tunis Agenda*, he took as a starting point the reporting requirement contained in paragraph 71 of the *Tunis Agenda*, which states that "relevant organizations shall be requested to provide annual performance reports". The Under-Secretary-General, on behalf of the Secretary-General, therefore wrote to all organizations responsible for essential tasks associated with the Internet"[40] asking them to report on the steps they had taken towards enhanced cooperation.

98. Once the information is received from those organizations, the Secretary-General will report it to the General Assembly and the Economic and Social Council; based on the information received, he will make recommendations on how the process towards enhanced cooperation should be pursued.

**Financing mechanisms**

99. The "1% digital solidarity principle" proposed by the Digital Solidarity Fund (DSF) continued to garner political support in 2007, including from the Pilot Group on Solidarity Levies to Fund Development,[41] which met in Seoul in September 2007. The "World Conference on Digital Solidarity and its Financing", hosted by the Government of France, will take place in Lyon in November 2008. Expected to be held at the level of heads of State, the Conference will provide an opportunity for the international community to consider the adoption of an international convention

[39] World Summit on Information Society, Tunis Agenda, paragraphs 68-71.
[40] Paragraph 70 of the Tunis Agenda.
[41] Comprising 54 States.

on the "1% digital solidarity principle". It is hoped that the outcome of the Conference will constitute a positive input to the Follow-up International Conference on Financing for Development to Review the Implementation of the Monterrey Consensus, to be held in Doha, Qatar, from 29 November to 2 December 2008.

100. DSF has set two priorities for action geared to health and education. In health, it encourages local authorities in the advanced countries to become involved in specific digital solidarity initiatives through the "1,000 telemedicine units for Africa" programme. Cities and local authorities in the North will be invited to support fixed or mobile telemedicine units, contributing the expertise of their doctors and hospitals to remote diagnosis networks. In education, DSF promotes initiatives to equip schools with computers and also make digital education resources available to teachers in the poorest countries.

**Measuring ICT for development**

101. Since the endorsement of the Partnership on Measuring ICT for Development[42] core list of ICT indicators by the United Nations Statistical Commission in 2007, several developing countries have integrated the indicators into existing household and business surveys, which will become a basic reference for the formulation and evaluation of policies on ICT for development. In July 2007, Partnership members signed a memorandum of understanding whereby the ten member organizations agreed to expand their joint efforts in the area of ICT measurement, including by providing technical assistance to national statistical offices so that they are better able to collect and process official data and indicators on their information societies.

102. During 2007, the Partnership mainly focused on assisting developing countries with the production of ICT statistics, through an assessment of capacity-building needs in countries, the organization of training sessions, seminars and workshops, and advisory missions. These included regional and national workshops, organized by the different members of the Partnership, in collaboration with other regional and international institutions. These workshops reviewed the internationally agreed core ICT indicators and explored global and regional experiences in ICT measurement. A new Partnership publication, *The Global Information Society: A Statistical View*, is due for release in May 2008. The publication takes stock of progress made to date in meeting WSIS goals.

103. In 2007, UNCTAD launched the first methodological *Manual for the Production of Statistics on the Information Economy*. The Manual supports the production of official statistics on the ICT sector, ICT trade and the use of ICT by businesses, in particular in developing and transition economies. It will be subject to a global consultation in 2008, and will be submitted to the United Nations Statistical Commission for approval in 2009.

104. In response to the request from ITU member States for the development of a single ITU index to measure countries' progress towards building information societies, ITU prepared a background document with an overview of index methodologies and indicators for the 6th World Telecommunication/ICT Indicators Meeting, held in Geneva in December 2007. The Meeting made a number of recommendations regarding the single ITU index, including a proposal on the methodology and choice of indicators to be included in the index. The single ITU index is expected to be finalized and published during 2008.

[42] Members are: ITU, OECD, UNCTAD, the UNESCO Institute for Statistics, the Economic Commission for Africa (ECA), the Economic and Social Commission for Asia-Pacific (ESCAP), the Economic Commission for Latin America and the Caribbean (ECLAC), the Economic and Social Commission for Western Asia (ESCWA), Eurostat and the World Bank.

*b. Facilitation of WSIS implementation*

105. In 2007, a second round of action line facilitation meetings took place in Geneva from 14 to 25 May 2007. With regard to overall coordination, ITU, UNESCO and UNDP organized on 25 May 2007 a second meeting of WSIS action line facilitators. The meeting provided an opportunity to exchange information among facilitators and other stakeholders; identify areas for further improvement; and exchange views on modalities of reporting and the overall implementation process.[43] Key proposals were made to establish mid-term goals in order to accelerate the implementation of WSIS objectives but also to benchmark progress.

106. A joint facilitation meeting on action lines C2, C4 and C6 was held by ITU, in collaboration with UNDP, on 16 May 2007. The meeting succeeded in improving synergies across the three Action Lines. A plan of action focused on the six following components was approved: (1) promotion of national ICT strategies; (2) harmonization of ICT policies in different regions; (3) development of regional and large-scale national initiatives; (4) launch of global thematic ICT infrastructure initiatives; (5) development of a virtual financing platform and (6) deployment of an online tool for ICT development assessment.

107. The Second C5 Facilitation Meeting, convened by ITU on 14–15 May 2007,[44] discussed progress by stakeholders in implementing activities; consideration of future framework discussions to improve international cooperation and coordination; and future work plans. Given the global nature of the legal, technical and institutional challenges posed by the issue of cybersecurity, participants also addressed ways to build partnerships that cut across themes and stakeholders.

108. UNCTAD, ILO and ITC jointly organized an action line facilitation meeting on "e-Business and e-Employment" on the theme of "ICTs, Global Supply Chains and Development". The meeting explored the role of technology and innovation in supply chains; the measures that policymakers and enterprises could take to exploit the opportunities of greater market access and strengthen enterprise competitiveness; the labour market implications; and the costs and benefits of such changes.

109. As lead facilitator agency for six of the WSIS action lines, UNESCO organized a series of facilitation meetings, and identified priority areas for some of the action lines.[45] For *C7 e-science*, academic network access, open access, P2P knowledge-sharing, and preservation of scientific data, standardized metadata and ontologies. For *C8*, memory and heritage, local content and contemporary cultural expressions, linguistic diversity, transversal research, and people with disabilities. For *C9*, two additional themes have been identified, on "media education and information literacy" and "community media, particularly radio and multimedia centres".

110. One entity observed that the wide-ranging structure of action line implementation itself proved to be a challenge to coherent efforts to narrow scope and define issues. Despite the efforts in sub-grouping of each action line and the intent to involve stakeholders in the coordination of subgroups, it was a challenge to maintain participation and sustain the implementation process. Further, participation and inclusion of new stakeholders in the facilitation process had been low. The entity called for greater coordination among the leading facilitator agencies, with a sharper definition of roles. It was proposed that such coordination should include a shared commitment in providing coherent measuring tools to monitor and assess the

[43] The report is available at: http://www.itu.int/wsis/implementation/consultations.html
[44] Full documentation on the meeting is available at http://www.itu.int/wsis/c5/index.html
[45] For other ALs, please see E/CN.16/2007/2.

status of implementation of main themes of WSIS outcomes. The entity also called for greater involvement of United Nations agencies' field offices in the organization of multi-stakeholder facilitation meetings.

# IV. Findings and recommendations

111. Progress towards implementations of the outcomes of WSIS seems to be on track. A host of activities have been reported by entities in the United Nations system on their efforts in implementing WSIS outcomes. One welcome development is that many of the activities reported have been carried out in multi-stakeholder partnerships with other organizations at the regional, international, national and local level.

112. In terms of action line facilitation, while some entities have reported on successful mobilization of relevant stakeholders through electronic networks and face-to-face consultations and meetings, others have encountered considerable difficulty in securing the participation of all stakeholders and reported on low involvement of new stakeholders in the facilitation process. One obstacle identified was the high cost associated with face-to-face facilitation meetings in Geneva, which deterred participation by developing country stakeholders.

113. Entities called for greater coordination among the leading facilitator agencies, with a view to providing coherent measuring tools to monitor and assess the status of implementation of main themes of WSIS outcomes. As underscored by the 2007–2008 CSTD intersessional panel, there is a need to benchmark progress towards the attainment of the specific targets and goals set out in the Geneva Plan of Action and the Tunis Agenda for the Information Society. In that regard, the Commission, through the UNCTAD secretariat, may consider collaborating closely with UNGIS, the lead moderators and facilitators to group the 11 action lines into thematic clusters.

114. In addition, to ensure coherence, the UNCTAD Secretariat may consider consultations with action line facilitators during the 2008–2009 intersessional period, possibly within the context of UNGIS, to further define roles and explore ways and means of streamlining the reporting process.

115. The Commission may also consider exploring ways and means of maximizing the meaningful participation of and contribution by civil society and business entities in the work of the Commission.