



Economic and Social Council

Provisional

25 September 2000

Original: English

Substantive session of 2000

High-level segment

Provisional summary record of the 14th meeting

Held at Headquarters, New York, on Thursday, 6 July 2000 at 3.30 p.m.

Chairman: Mr. Wibisono (Indonesia)

Contents

Development and international cooperation in the twenty-first century: the role of information technology in the context of a knowledge-based global economy
(*continued*)

Corrections to this record should be submitted in one of the working languages. They should be set forth in a memorandum and also incorporated in a copy of the record. They should be sent *within one week of the date of this document* to the Chief, Official Records Editing Section, room DC2-750, 2 United Nations Plaza.

The meeting was called to order at 3.55 p.m.

Development and international cooperation in the twenty-first century: the role of information technology in the context of a knowledge-based global economy (*continued*) (A/55/75-E/2000/55, E/2000/33, E/2000/50, E/2000/52, E/2000/70, E/2000/71, E/2000/72, E/2000/73, E/2000/74 and E/2000/CRP.2)

1. **Mr. Fust** (Observer for Switzerland) said that in order to take advantage of the potential for globalization, development and poverty eradication offered by information and communication technologies (ICT), the digital divide must be bridged and the gap between rich and poor reduced. Switzerland was an active member of the Global Knowledge Partnership and the Global Development Network; it was increasing its focus on knowledge and development as a cross-cutting priority in its overall development cooperation and was working to integrate community radios with new ICT and information and to promote local knowledge platforms in and owned by the South. It was also supporting a number of ongoing projects such as a joint initiative of the University of Geneva and the University of Malta on distance learning for diplomats in developing countries.

2. With the support of the United Nations system, Governments should focus on creating an appropriate policy and regulatory framework to permit private sector investment in ICT and promote ICT access, security and privacy. They should also cooperate with the private sector, civil society and development agencies in seeking adequate solutions for marginalized areas and social groups. It was also important to move from individual connectivity to community connectivity, especially in areas left behind by globalization.

3. The United Nations system should make greater efforts to provide capacity-building and promote the interests of those who were not yet able to benefit from the ICT dimension of globalization. He therefore welcomed the proposal to establish a special United Nations trust fund for that purpose. Access to information was not enough, however; the selective translation of relevant information into useful knowledge was essential and the value of that knowledge must be considered. Cultural and linguistic diversity must be promoted in order to avoid further

exclusion; local content must flow into networks; the needs of local populations and marginalized groups such as women and the disabled must be reflected; and empowerment and exchanges within regions of the South must be encouraged. To that end, his Government was prepared to host the proposed world summit on the information society in Geneva in 2003.

4. **Mr. Martínez-Aguilar** (Mexico) said that globalization offered not only opportunities, but also challenges that, if not met, could worsen the long-standing problems of many developing countries. Lack of access to ICT and hence to the knowledge-based global economy could prolong and even increase the marginalization of many countries; in order to achieve the potential offered by ICT for poverty eradication and sustainable human development, development policies at all levels must be such as to ensure the wide dissemination and optimum use of knowledge at the global level in support of education, cultural diversity, development and social cohesion.

5. Strategies must be developed to promote ICT access for all economic actors, increase levels of connectivity and make the technological adjustments needed to integrate developing countries and vulnerable population groups into the global economy. It was also important to develop policies that would close the growing knowledge gap both nationally and internationally by focusing on education and human resources development, as well as basic infrastructure needs. Appropriate educational structures must be developed, local industries, marketing mechanisms and financial resources must be strengthened and adapted to new development requirements and public policies must be implemented which promoted research and development.

6. The Council could play a leadership role in tapping the potential of ICT for development by providing a global forum in which developing countries could participate in the development of regulatory and institutional frameworks that provided the necessary incentives for technological innovation combined with social development. It could promote and facilitate alliance among multilateral institutions, Governments, the private sector and civil society in order to increase the social impact of ICT for the benefit of the most vulnerable sectors through, inter alia, natural disaster reduction, distance telemedicine and distance education. Lastly, it could build its own institutional capacities and improve coordination

within the United Nations system in order to optimize its contribution to enhancing the impact of ICT in developing countries. His Government stood ready to participate in that endeavour.

7. **Mr. Ajjoul** (Morocco) said that ICT was not a panacea, but part of a global economic structure that remained unfair to the poor and the disadvantaged. The Council must therefore explore national, regional and global strategies that would guarantee that everyone benefited from the new technologies. As the United States Secretary of the Treasury had said, that would require a new consensus based on economic growth, integration of the developing countries into the global economy, adaptation of national policies to the requirements of that economy and involvement of the public sector.

8. ICT must be an integral part of development programmes and the international community must find new ways of giving all nations access to the digital age. He therefore welcomed the proposal to establish an ICT task force and trust fund. It was clear that the Governments of developing countries must institute transparency, good governance and shared responsibility. However, technical assistance, official development assistance (ODA) and, above all, debt relief were equally important for ensuring poor countries' access to the digital age.

9. His Government was committed to ensuring that the ICT revolution benefited all peoples without, however, threatening cultural diversity or national identity. It had therefore welcomed the proclamation of 2001 as the United Nations Year of Dialogue among Civilizations and hoped that the Millennium Summit would culminate in the adoption of an international strategy committing the United Nations system, Governments, the private sector and civil society to mobilizing the resources needed to narrow the digital divide.

10. **Mr. Atta-Ur-Rahman** (Pakistan) said that Internet transactions had made the world a global village. It was the international community's task to find ways of making the best use of ICT, bridging the digital divide and moving towards development in harmony and peace. A country's real wealth lay in its people and in its ability to harness an educated population in the service of development. Investment in human resources was the key to success, yet the total combined gross domestic product (GDP) of the Islamic

and third world countries was less than that of Japan. He therefore proposed the establishment of a United Nations virtual university for distance learning in information technology (IT). By training millions of IT professionals in developing countries, such a university could promote a knowledge-based global society. Satellite technology could even bring lectures delivered at major universities to people in remote villages. The proposal was a feasible one and should be considered for inclusion in the ministerial declaration to be adopted at the current session.

11. At the South Summit held in Havana in April 2000, leaders of the developing countries had called unanimously for a new spirit of international cooperation based on the principles of equity, shared benefits and common but differentiated responsibilities between developing and developed countries, and for the broad-based participation of developing countries in international economic decision-making. They had also pledged to harness the potential of ICT for development. To that end, his Government had increased its budget allocation to the science and technology sector by 12,000 per cent.

12. The United Nations was well placed to address issues such as the development of appropriate infrastructures for emerging technologies, the dissemination of knowledge and education so that the developing world could make a contribution to software development and the facilitation of networking among nations and of networked transactions among businesses and between businesses and consumers. He hoped that the proposed ICT task force would establish specific targets for achieving those goals. Pakistan, for its part, had endeavoured to place itself strategically in order to benefit from the immense potential of ICT.

13. **Mr. Slaveski** (Observer for the former Yugoslav Republic of Macedonia) said that his Government was committed to taking an active part in the ongoing globalization process and was endeavouring to liberalize its economy fully and establish an open-market policy in order to achieve full integration into the European and global economies. However, if developing countries and countries with economies in transition were to benefit from ICT as part of the globalization process, appropriate action must be taken at the national and international levels and within the United Nations system.

14. His Government was preparing an ICT strategy for inclusion in its national development strategy and had established a special Department for Informatics within the Ministry of Science in order to increase the level of computerization of ministries and State institutions, promote ICT use in education and the private sector and increase the number of private companies working in the ICT field. A joint information centre had been established to provide Internet and intranet connection for State institutions; however, funding constraints had limited the system's use. With the development of personal computer (PC) technology in the near future, the Government hoped to decentralize the system into several smaller but more effective ones.

15. His country offered great opportunities for the development of ICT. It had a well-developed telephone and electricity infrastructure and was promoting investment in human resources and basic technological literacy. However, it was only just beginning to develop a local content in the Macedonian language. With the population of 2 million people, it currently had seven major Internet providers. The number of Internet connections in the country was increasing rapidly, but was still far below the level of the developed countries, particularly the United States of America. The primary obstacles to progress were a lack of PCs and the high cost of Internet access, which averaged about US\$ 1 per hour. Nevertheless, the number of companies dealing with ICT and the creation of web sites was increasing rapidly and his Government was committed to achieving significant progress in that area.

16. While each country was responsible for creating the conditions for its own development, the international community, and the United Nations system in particular had a responsibility to help create conditions for ensuring that globalization benefited all the countries of the world. Only through the free and full transfer of ICT from the developed to the developing countries and countries with economies in transition could criticism and rejection of the globalization process be avoided.

17. **Ms. Rodríguez** (Colombia) said that while ITC was fundamental to the development of modern society, the gap between "haves" and "have nots" would widen unless information was made accessible to all. Like other developing countries, Colombia had incorporated ITC into its development model and was

proud to have signed the Declaration of Florianopolis, in which the Latin American and Caribbean countries had declared their intention to develop concrete strategies for such technology at the regional level. To that end, her Government had developed a State policy, "The Connectivity Agenda: The Leap to Internet", which focused on using ITC to improve the population's quality of life by ensuring equitable access to opportunities in the areas of education, health, employment, justice, culture and recreation; promoting the use of ITC to support growth, enhance competitiveness, improve market access and create jobs; and establishing connectivity to facilitate the management of Government agencies and the provision of public services.

18. To achieve those objectives, coordinated efforts must be made under six strategies: ensuring affordable access for most of the population to ICT infrastructure through community access centres and ICT awareness programmes; using information technology for educational purposes and training the population to use it; enhancing the competitiveness and productivity of enterprises through information technology; creating favourable conditions for the development of the ICT industry; generating local and regional content in Spanish; and using ICT to improve the State's efficiency and transparency, strengthen social control over public administration and improve the provision of public services.

19. Also important was the support of the international community, and particularly that of bilateral and multilateral agencies, through cooperation in the transfer of technology and in the identification of financing options and economic support, such as debt-for-ICT investment swaps. It must be borne in mind that ICT was not an end in itself and that its ultimate purpose should be to help eradicate poverty. In that context, the United Nations system, especially the Economic and Social Council, was an ideal forum for the exchange of ideas and experiences.

20. **Mr. Kranz** (Poland) said that, for countries such as Poland, globalization offered an opportunity to accelerate knowledge-based growth and technological modernization. Over the past decade, Poland had reformed and restructured its economy, at a high social cost, with a view to meeting the challenges of globalization and taking advantage of trade liberalization and technological advances. Despite the problems it faced, it was convinced that the ICT

revolution would enable countries to increase their productivity, reduce prices and create new economic activities and employment opportunities. The problem was how to ensure a more equal distribution of benefits among and within countries.

21. Poland welcomed international initiatives to improve the access of less developed economies to new telecommunications technology. Those countries needed both technical assistance and infrastructure investment. Since the latter was largely subject to each Government's ability to mobilize resources, good governance was crucial. It was important to strike a balance between what should remain under the control of democratically elected Governments and what could remain in the non-governmental sphere. In addition to Governments, new actors in civil society, transnational corporations and international institutions should become more involved in the consideration of social issues and should assume a larger share of the responsibility for social development.

22. Poland welcomed the proposed United Nations Information Technology Service (UNITeS) and was eager to cooperate in its implementation. The relevant activities of the Economic Commission for Europe (ECE), such as its work on electronic commerce and the Centre for Facilitation of Procedures and Practices for Administration, Commerce and Transport (CEFACT), should enable it to act as a focal point for discussions on issues such as the impact of ICT, the outlook for countries with economies in transition and the opportunities offered by the European Union enlargement process. Poland agreed that political will, on the part of both Governments and international organizations, was a prerequisite for ensuring the equitable distribution of the benefits of the ICT revolution.

23. **Mr. Zarif** (Observer for the Islamic Republic of Iran) said that no one doubted that ICT was an important means of expediting national and international development processes and that it had a major impact on key economic sectors. The question was how to harness its potential to optimize the benefits of globalization for all countries and to contribute to the long-term genuine development of the South. Currently, developing countries were grappling not only with the adverse effects of the still-inequitable globalization process, but also with the widening of the digital divide, which was an alarming trend that must

be reversed. At the same time, ICT must be seen not as a handy panacea, but as a useful tool for development.

24. The developing world could enjoy the tremendous benefits of ICT only through comprehensive development and meaningful integration into the world economy. Accordingly, he agreed with the Secretary-General on the need for a comprehensive programme of action carried out through global ICT partnerships. The United Nations should play a pivotal role in designing and implementing that programme of action, which should be based on the concepts of national and international cooperation and partnership and should take into account the recommendations contained in the report of the Secretary-General (E/2000/52). At the national level, political will, priority-setting, the creation of a favourable environment for the dissemination, development and use of ICT and the integration of all related efforts into a coherent national development strategy were imperative. At the international level, the international community, especially the United Nations system, should help the developing world become integrated into the networked knowledge-based global economy through the provision of connectivity, human and institutional capacity-building and the development of content with a view to reflecting global diversity.

25. The United Nations was an unrivalled global forum for promoting consensus among all stakeholders, building partnerships to foster the flow of knowledge for development and harmonizing divergent interests. The system's capacity and coordination in that area should be strengthened, inter alia, through the establishment of an ICT task force and the review, by the Economic and Social Council, of the mandates and activities of subsidiary bodies dealing with ICT. With respect to funding, the proposal of the high-level panel of experts on ICT on the writing off of 1 per cent of the debt of each developing country (A/55/75-E/2000/55, para. 11 (d)) would give those countries an incentive to pursue their national endeavours in the field of ICT. His Government was fully committed to the strategic development of ICT and looked forward to cooperating in that regard with the United Nations system and other international partners, developed and developing countries, the private sector and non-governmental organizations.

26. **Mr. Takev** (Bulgaria) said that ICT had a substantial impact on the acceleration of growth, poverty eradication, sustainable development and the

integration of all countries and regions into the global economy. However, rich and poor countries were currently separated by a digital divide, in addition to a long-standing economic and social divide, which would inevitably widen without concerted efforts by the international community and especially the policy guidance and coordination of the Economic and Social Council. His Government hoped that a framework for action based on the report of the high-level panel of experts on ICT (A/55/75-E/2000/55) and on the findings and recommendations contained in the report of the Secretary-General (E/2000/52) would be developed before the forthcoming Millennium Assembly.

27. It was necessary to identify the national and regional actions needed to create an environment conducive to the rapid development, distribution and use of ICT. His Government had adopted and begun to implement a national information society strategy to meet the new technological challenges with a view to increasing prosperity. As regional coordinator for Central and Eastern Europe and Central Asia in relation to the year 2000 computer problem, Bulgaria had helped to increase regional cooperation in that area; recently, it had hosted a regional conference on the development of an information society, at which participating States had affirmed their willingness to continue to cooperate in the use of ICT as an instrument for economic and social development.

28. **Mr. Matsuura** (Director-General of the United Nations Educational, Scientific and Cultural Organization (UNESCO)) said that, with the emergence of a global knowledge-based economy that operated through ICT, the fundamental mission of UNESCO, which was to promote the free exchange of ideas and knowledge and to maintain, increase and diffuse knowledge, was more topical than ever. The technical potential of ICT, though extraordinary, was no substitute for the political resolve of the founders of UNESCO to develop and increase the means of communication between peoples. ICT had opened up previously unheard-of possibilities for the realization of such basic rights as education, freedom of expression and access to information. The aim of the knowledge-based economy must be to construct a "knowledge society" based on the sharing of knowledge.

29. It was necessary to bridge the digital divide in order to harness the potential of ICT to fight poverty

and exclusion. The United Nations system had a crucial role to play in setting up a framework for global governance of the information society. In that connection, the natural partners of UNESCO were the professional communities that produced, disseminated, processed and conserved information and knowledge: teachers, scientists, journalists, researchers, librarians, archivists and artists. Since those partners were vital intermediaries with all segments of society, UNESCO intended to use its links with them to reach those who had not yet been reached by ICT, particularly rural populations, the urban poor, the illiterate and the marginalized.

30. UNESCO advised its member States on ICT applications at all levels of education and promoted the use of ICT in non-formal and continuing education. The educational systems of developing countries needed wide access to ICT and to educational content produced with public funds. The international community, especially the United Nations system, should promote the sharing of educational experience and software, particularly by making widely available educational material in the public domain. One approach would be to link all relevant sources into a *World Education Portal*, a reference web site which UNESCO planned to initiate in collaboration with interested national and international partners.

31. UNESCO would make ICT access for all a central aim of its efforts. It had launched a number of pilot projects, such as multi-purpose community information centres including community radios linked to the Internet. It was also working on the issues of cultural and linguistic diversity, freedom of expression on the Internet and the threat to privacy. Its new intergovernmental Information for All programme would provide a platform for international collaboration and partnerships on information access and on the ethical, legal and social impact of ICT. The aim of all those activities was to create a truly inclusive knowledge society.

32. **Mr. Satoh** (Japan) said that ICT must never be considered an asset reserved exclusively for developed countries. Instead, it must be used to create digital opportunities for people in every country. ICT could enable developing countries to jump directly into the industrial revolution of the twenty-first century. Some developing countries had already used ICT to spur economic development. However, the possibility that the so-called digital divide would widen further was a

source of great concern. The international community must make concerted efforts to support the use of ICT by developing countries. The role of the private sectors of the developed countries was vitally important to the success of those efforts. At the same time, developing countries must assume ownership of the strategy for taking advantage of ICT.

33. Japan had taken a series of initiatives to promote international cooperation in the use of ICT for development. For example, it had hosted an international symposium on information technology and development cooperation. As President of the Group of Eight for 2000, it had made ICT a central focus of the agenda of the forthcoming Kyushu-Okinawa Summit, at which participants would consider practical measures to help developing countries make rapid progress through the use of ICT. He hoped that those deliberations, as well as the current Council session and the Millennium Summit, would lead to a global understanding on how to make the best use of digital opportunities and how to bridge the digital divide.

34. His Government had recently announced its intention to provide \$1 million for the United Nations Development Programme (UNDP) project to promote ICT in the Pacific region. Moreover, it had announced to the members of the Association of South-East Asian Nations (ASEAN) that it would increase its support for the "e-ASEAN" initiative to improve ICT infrastructure throughout East Asia. It also intended to implement projects in the amount of \$1.5 million for the promotion of ICT in Africa, in cooperation with UNDP. At the Kyushu-Okinawa Summit, Japan would announce a comprehensive cooperation package to promote the use of ICT for developing countries, with particular emphasis on intellectual assistance for policy- and system-building; human capacity-building through training and education; infrastructure and networking; and the use of ICT in development assistance.

35. **Mr. Wang Yingfan** (China) said that information and communication technology had progressed by leaps and bounds in the 1990s, accelerating the process of economic globalization and contributing to the global allocation of resources and the cross-border flow of capital, technology and commodities and thus to greatly enhanced productivity throughout the world. However, for all the benefits and opportunities brought about by ICT, there were also negative effects, and the

rapid pace of science and technology had failed to bring prosperity to all nations. The gap between North and South had widened as a result of the digital divide, casting a shadow over hopes for the common development and prosperity of all humankind. Most developing countries were unable to reap the benefits of ICT because of their low development levels and the absence of significant international cooperation in that field.

36. Current achievements in science and technology were the crystallization of the wisdom accumulated by humankind over thousands of years, they therefore belonged to the entire human family. All countries and peoples were entitled to share the benefits of those achievements. The United Nations and its Member States should use ICT to eliminate poverty, narrow the North-South divide and promote the common development and prosperity of all the world's people.

37. Every country should grasp the opportunities for development offered by information technology. Developing countries should give priority to education and technological progress, formulate information-based development strategies and choose a path to national prosperity through science and education. The international community should create a favourable external environment for developing countries to upgrade their information technology and demonstrate the political will to assist them in their efforts to bridge the digital divide, providing financial support and technology transfer and helping them to improve education and training. That should be done in a spirit of mutual benefit and cooperation. In particular, the developing countries should be helped to become possessors of information technology, not just users of IT equipment. New forms of South-South cooperation in high- technology fields such as ICT should also be explored.

38. The United Nations should guide and coordinate the promotion of ICT for development, acting as a forum for international cooperation in that field and helping Member States to formulate relevant laws and technical standards. His delegation hoped that the United Nations would mobilize further resources and support to help developing countries grasp the opportunities of the information revolution and bridge the North-South digital divide, so that ICT could contribute to the elimination of poverty and the achievement of economic growth and sustainable development. His Government had always been

committed to promoting information technology and attached great importance to international cooperation in the information field. It was willing to join with the rest of the international community in strengthening that cooperation so that ICT could benefit all of humankind.

39. **Mr. Powles** (New Zealand) thanked the representatives of private sector organizations, multilateral bodies and international financial institutions who had contributed to the high-level segment. That broad participation was a model for the kinds of partnership required to fully harness the potential of ICT for development.

40. For people living in the United States of America, there was no escaping the power of the technological revolution. Every day, they were inundated with electronic advertisements and offered endless opportunities for electronic commerce, and they could perform all manner of tasks at the click of a mouse. For members of the upcoming generation, ICT would be a crucial part of every activity and knowledge and awareness of it would be central to their role in shaping the future. However, the revolution was not yet a global one, as could be seen from the fact that nearly 90 per cent of Internet users lived in industrialized countries, or that sub-Saharan Africa had just 0.1 per cent of the world's Internet connections. The challenge facing the international community was to ensure that all people, not just the wealthy in the developed world, had the capacity to join that revolution and benefit from the opportunities it brought.

41. That was not to say that ICT was the panacea for the world's problems. It was still essential to address human development needs such as eradicating poverty and providing basic education, health services and shelter. What ICT could do was contribute to meeting those needs and thus provide opportunities for speedy and sustainable development. Such opportunities were never more apparent than for small island developing States such as those in the South Pacific, whose development had traditionally been constrained by isolation and small internal markets but whose situation was currently changing. ICT, in the form of Web pages, Internet-based marketing and other activities, had led to the growth of new markets and increased revenue from areas such as tourism. It had also been crucial in opening up educational opportunities through distance-learning programmes and access to information.

42. However, the great opportunities offered by ICT had yet to be realized fully in the Pacific, because access to, and awareness and knowledge of, ICT remained limited. Practical steps must be taken to bridge the digital divide. The international community should also address gender inequalities in ICT use: women currently accounted for only a small percentage of users, but stood to benefit enormously from the empowerment that could come from ICT. Bridging the digital divide would require innovative approaches, as well as a sustained increase in or, in the case of some donor countries, a reversal of the decline in ODA. Such assistance needed to be targeted effectively and guided by the specific developmental needs of each recipient country. ICT-related ODA should be focused on capacity-building, which remained the key to enabling developing countries to benefit from ICT. His delegation supported initiatives such as SIDSNet, the Internet-based networking forum for small island developing States, which helped to reduce the impact of distance and isolation by giving them constant access to information on relevant issues.

43. Partnerships were the key to opening up ICT opportunities for developing countries. One such partnership must be forged between the public and private sectors in all countries. The private sector drove much of the progress in ICT and would continue to do so. The public sector could support that progress by creating an environment conducive to growth in the ICT sector through liberalization, ensuring competition and setting up a fair regulatory framework for ICT development. At the global level, his delegation urged extension of the moratorium on customs duties on e-commerce transactions. In the area of development assistance, increased attention must be given to developing public/private partnerships and encouraging sustainable relationships between technology companies and developing countries.

44. The international community must acknowledge the crucial role that ICT could play in improving lives around the world. In so doing, it must ensure that ICT did not become another area in which a modern innovation exacerbated division and inequity but one in which technology was used for improving the lives of all people.

45. **Mr. Chowdhury** (Observer for Bangladesh) said that a consensus had emerged that expansion of ICT was indispensable for economic growth in the developing countries. ICT had grown exponentially in

the developed countries and much of their recent economic progress was attributable to increased information flows. ICT thus held considerable promise for the developing world, but little had so far been achieved. The majority of people in the developing countries had remained at the margin of advances in ICT, owing to a lack of infrastructure, investment and capacity. However, it was still possible to acquire a certain degree of connectivity and to start benefiting from wider access to information. ICT development required, in addition to efforts by national Governments, that the private sector play a prominent role, supplemented by support from bilateral donors and multilateral development institutions.

46. Connectivity had increased in Bangladesh, thanks to the energy, ingenuity and entrepreneurship of individuals, the involvement of the private sector and government support. The use of mobile telephones had spread to many remote villages, providing livelihoods to the poor, who often obtained micro-credits to set up cell phone businesses, and connecting people in distant areas to the rest of the world.

47. The global ICT revolution offered tremendous opportunities, but also brought great risks for developing countries. Unable to keep pace in a fast-changing world, those countries were in danger of falling behind even more rapidly than before. In order for developing countries to benefit from ICT, a number of conditions must be met: national Governments must establish legal and regulatory frameworks which would support ICT development; developing countries must identify the ICT sectors that were a priority for them, such as poverty alleviation, better education, health and nutrition, prevention of pollution and timely management of disasters; the United Nations must coordinate global efforts to bridge the digital divide, contribute to awareness-raising and the sharing and dissemination of best practices and provide assistance at the national level; investments must continue to be made in literacy and basic education programmes and also in higher education in order to develop the human resources needed to exploit increased connectivity; and adequate resources must be mobilized to extend the global networked economy into the developing world, thereby accelerating global growth and bringing benefits to all.

48. The technology gap between developed and developing countries had become an important factor in widening the income gap between them. Urgent

measures must be taken immediately to close that divide.

49. **Mr. Nguyen Thanh Chau** (Viet Nam) said that many countries were unable to benefit from ICT because they lacked the necessary human and institutional capacities and ICT infrastructures, particularly the ability to exploit the Internet effectively. If the digital divide was not bridged, differential access to knowledge and information could exacerbate existing inequalities and imbalances. His delegation supported the Secretary-General's call for a programme of action to bridge that divide, using ICT to reduce poverty and narrow the development gap within and among nations.

50. His Government was fully aware of the impact of ICT on development and had, since the early 1990s, focused on upgrading the country's poor ICT infrastructure, primarily the national post and communication system, with a view to alleviating poverty. Special efforts had been made to connect people in remote and mountainous areas to the national network. Post offices in such areas had gradually been turned into clearing-houses where local people could have access not only to telephones but also to newspapers, magazines and other sources of information. Viet Nam had been officially connected to the World Wide Web in November 1997, and the number of Internet subscribers had increased dramatically.

51. Those modest achievements had already stimulated the development of the ICT market in Viet Nam, which had grown by 20 per cent annually in recent years. The Government was preparing to launch a new ICT development programme for the period 2001-2005 as part of its overall national development strategy. The programme provided for setting up an appropriate legal framework, improving ICT infrastructure, training human resources at the university level and disseminating knowledge on ICT to the general public, and investing in research and development. Those measures were designed to place ICT at the service of social and economic development and to foster the establishment of an ICT industry in Viet Nam.

52. Access for all was a key to ensuring the effectiveness and sustainability of the contribution of ICT to development. Comprehensive efforts were needed to make such access a reality. However,

because of their limited resources and low level of development, developing countries faced considerable difficulties in promoting ICT development, making international cooperative measures in that field essential. Such measures should include: joint action to reverse the ongoing downward trend in ODA and fulfilment of the target of allocating 0.7 per cent of GDP for that purpose; promotion of technology transfer, capacity-building and human resources development; and establishment of a strong linkage between ICT development and the goal of reducing poverty and narrowing the development gap.

53. Over 200 years had elapsed since the industrial revolution, yet poverty and inequality among and within countries persisted and were in fact growing. ICT must be turned into a powerful tool for achieving the goal of development for all, a challenge which called for the active participation of all countries, international organizations, financial and commercial institutions, the business community and non-governmental organizations.

54. **Mr. de Haen** (Assistant Director-General of the Food and Agriculture Organization of the United Nations (FAO)) said that modern information and communication technologies offered an enormous potential for generating knowledge which enabled people, even in the remotest and poorest parts of the world, to expand their opportunities and improve their living conditions. FAO believed that: a balance must be struck between expanding connectivity, improving information management and generating content relevant to the poor; much could be done to circumvent the digital divide; and the United Nations system should adopt a proactive approach to ensuring that developing countries became equal and well-informed partners in the new information age.

55. In the first area FAO had found that more attention needed to be given to capacity-building for effective information management and to the generation of content relevant to the needs of the poor, the food insecure and those vulnerable to the impact of disasters. In the second area, it was clear that for a resource-poor rural family in a developing country, having a workstation with Internet connection in the home would not be a high priority. The family would probably not have the education and training to use the workstation effectively; the information available via the Internet would very likely be in a language they did not use; and, most importantly, the content of that

information was likely to be of limited relevance to their needs. In order to circumvent the digital divide, the poor must be given the knowledge they needed to improve their livelihood. FAO had developed an array of specialized information systems which were used by those working for and with rural people and there were other types of modern communication technologies which were directly usable and used by farmers themselves, such as cellular telephones for obtaining market prices and radio and video communications for the dissemination of extension messages. One example of a specialized system developed by FAO was its Global Information and Early Warning System, a desktop mapping system using satellite images and other real-time digital information which enabled FAO to assist its members and, through them, populations prone to food shortages. That system had recently been provided to several national and regional early-warning agencies, which had adapted it to their specific needs.

56. In the third area, FAO had recently convened a consultation on agricultural information management which had been attended by representatives from 88 member countries. The priority issues that had emerged had been access to relevant information, capacity-building in information management and the importance of adopting common standards and guidelines. The United Nations system, Governments and the private sector all had distinct roles to play in that field. Within the United Nations system, for instance, efforts must be made to harmonize databases and indicators addressing the same or similar issues, such as poverty, malnutrition or food insecurity. No matter what ICT systems were developed and what agreements were reached, however, the poor would benefit only if their Governments were able to participate in the process of change as equal and well-informed partners alongside the more technologically advanced countries. The international community, and the United Nations system in particular, had a responsibility to ensure that the "digital divide" was turned into a "digital opportunity".

57. **Mr. Itsumi** (Secretary-General of the International Telecommunication Union) said that the use of ICT should make it possible to close the digital divide between the countries of the developed North and the developing South by helping to build businesses, extend access to health care and education and promote better communications among societies and individuals. However, the telephone lines essential

to ICT were unequally distributed. More than a third of the world's population lived in low-income countries, but they shared only 4 per cent of the world's telephone lines, fewer than 0.7 per cent of mobile telephones and under one tenth of 1 per cent of Internet host computers. Most of the world's citizens had never made a telephone call or sent an e-mail, and for large parts of the world the telephone network was not even within walking distance. The digital divide could not be bridged unless fixed telephone lines and mobile connections were more widely distributed.

58. To help its member States achieve universal access to ICT, as well as upgrade their basic telecommunication networks, ITU had been responding to requests from countries to help establish a regulatory framework and attract foreign investment. In order to advise on best practices, it had launched a project for carrying out a number of country case studies of the diffusion of the Internet in developing countries and for identifying the essential components of an Internet-friendly market environment.

59. The role of Governments in developing countries should consist of facilitating new investment and the introduction of modern technologies and ensuring that efficient services were available at the lowest possible cost. Experience had shown that that was best done by involving the private sector. Countries which had opted for market liberalization were now achieving rates of growth which surpassed those of the developed world. In Nepal, which had liberalized satellite access to the Internet in 1999, Internet connections had increased 15-fold in only eight months. In Egypt, the entry to the market of two privately owned mobile telephone operators had resulted in a rise in the number of mobile telephone users from under 100,000 at the end of 1998 to 1.25 million by April 2000. In such competitive markets, the functions of service provider and regulator must be clearly separated by establishing a stable regulatory framework. Governments must also introduce policies for achieving universal access.

60. The role of countries in the developed North should be to provide investment and to open their own markets to equipment and services from the South. There was also the issue of pricing. The use of telecommunication and Internet services ought to be cheaper in developing countries, where average incomes were lower, than in developed ones. However, the cost of Internet services was generally much higher in the developing South, inter alia, because of the high

prices paid for connection to the Internet protocol. In order to connect to the global Internet backbone, developing countries had to pay for the full cost of the international leased line to the country providing the hub. Over 90 per cent of international IP connectivity passed through North America. The traffic on leased lines passed in both directions, benefiting customers in the hub country as well as the developing country, yet the costs were borne primarily by the latter and its customers. The net cash flow on the Internet was therefore from the developing South to the developed North.

61. In order to narrow the digital divide in international IP connectivity, the private sector should take the lead by investing in new capacity or constructing new routes, and Governments should ensure that markets for infrastructure were open to competition. National regulators should work together to ensure greater transparency in the pricing of international leased lines, especially for the least developed countries, and more equitable funding arrangements should be found for international leased lines. Bearing in mind that two companies controlled over half the market in international IP connectivity, the trend on international routes towards consolidation of market share must be closely monitored by competition watchdogs. The free market might not in itself be sufficient to address all aspects of the digital divide in Internet connectivity; there was also a need for international cooperation, especially among regulatory agencies.

62. **Mr. Segond** (President of the State Council of the Canton of Geneva) observed that the rich countries, with only 19 per cent of the world's population, accounted for 91 per cent of Internet users. Meanwhile, most of the countries of the South encountered numerous difficulties in obtaining and using Internet services; they needed help in acquiring the necessary infrastructure and hardware and in familiarizing themselves with the new technologies. Those issues had been addressed at two meetings focusing on Africa, which he had organized with President Konaré of Mali in Geneva and Bamako. The aim of the Geneva meeting, in 1996, had been to facilitate full participation by civil society in the debate about the information society; the Bamako meeting, in early 2000, had brought together representatives of 50 countries and decision makers from the public and private sectors. Three lessons had been learned: that a

genuine information society could be built only by the whole of civil society; that the South must be involved in defining the rules of the information society, which must guarantee cultural diversity; and that women, as pillars of the community and the economy, must be enabled to play a proper role.

63. With those aims in view, he and President Konaré had launched the ANAIS network, which served more than 10 African countries and which had led to the formulation of guidelines for the information society, as reflected in the Bamako Declaration and Programme of Action. The world summit on the information society, to be held in 2003 at ITU Headquarters should discuss both technology and content. It should define rules guaranteeing free access to universal knowledge, freedom of expression, promotion of linguistic and cultural diversity and respect for the international public order. The Canton of Geneva would soon be setting up an international secretariat to facilitate the full participation of civil society in the summit. Switzerland was willing to host the summit because it was aware of the need to encourage synergy among the international organizations concerned, maximize the effectiveness of the preparatory work and minimize costs.

64. **Mr. Hirono** (Seikei University) summarized the results of the International Symposium on Information Technology and Development Cooperation, organized by the Government of Japan, the World Bank and UNDP in Tokyo on 3 and 4 July 2000.

65. Information technology provided great opportunities for individuals, corporations, communities and countries to speed up economic growth, restructure industry and expand employment and incomes. Because of the sheer pace of investment and technical progress in IT, the future competitiveness of all stakeholders depended on their state of readiness for the "digital economy", which was set to take over from the traditional economy. Developing countries were being left behind, and the Symposium had therefore focused on ways to create a "digital bridge" across the "digital divide".

66. Of a total of about 300 million Internet users, increasing by about 150,000 a day, over 90 per cent were in industrialized countries. Users in developing countries were predominantly young male urban dwellers working in both the public and the private sector. The more advanced developing countries, such

as Brazil, Chile, Estonia, Hong Kong, the Republic of Korea, Malaysia, Singapore and China, had adopted government policies to promote progress in information technology use. They had been rapidly expanding their investment in IT infrastructure and IT-related human resources, and had incorporated IT development strategies into their economic and social development plans. The introduction of a regulatory framework to maintain competition, along with the deregulation and privatization of State monopolies in the communication sector and increased liberalization in trade, finance and investment regimes, had helped those countries not only to restructure their industries in order to remain competitive on the world market but also to increase per capita income, employment and public participation in community and national affairs.

67. The Symposium had pointed to the danger of anti-competition forces coming to the fore in the context of intense global competition in IT-related sectors. Regulators, especially in industrialized countries, must remain alert to the negotiations on worldwide conglomerate mergers and acquisitions in those sectors. Participants had also been warned that Governments of industrialized countries must not stand in the way of further progress in IT in the private sector, particularly in the area of an emerging convergence between computing, communications and broadcasting technologies and the next generation of mobile telephones. The basic policy issue for developing countries was how to create an effective partnership between the public and private sectors in using IT for development and in dealing with such pressing problems as poverty reduction, food insecurity, illiteracy, ill health and environmental degradation.

68. It had been agreed at the Symposium that ODA could be usefully employed to assist developing countries in implementing effective IT policies, training the necessary human resources, expanding IT infrastructure and extending IT applications to problems in education, health and the environment. For that purpose, donor contributions must be coordinated and programmes and projects devised which reflected people's felt needs. IT technology should be transferred at a cost affordable to developing countries, inter alia, through expanded South-South cooperation, and technical cooperation should be provided in IT-related human resources development and institution-building.

The focus should be on goals which were achievable in the short and intermediate term.

69. The policy recommendations made at the Symposium fell into two groups: action to be taken by developing countries and by action to be taken by the international donor community. Developing countries had been asked to accelerate the introduction of a legal and institutional framework for IT, including the deregulation and privatization of State monopolies in communications and broadcasting and the development of IT infrastructures such as high-speed information and communication networks. Administrative efficiency in central and local government machinery would be improved through IT applications, as in the case of the National Information Centre of India, which operated at national, state and district levels. Public information and public services should also be made more transparent, and the education and health sectors should benefit from IT applications, as should public enterprises, defence and security, disaster prevention and environmental management. IT hardware should be recycled through tax and financial incentives. Governments should explore measures to improve productivity in the private sector by accelerating IT applications in manufacturing distribution and the service sectors. They could give priority to the development of new IT-related businesses by introducing an appropriate legal and institutional framework, as well as fiscal incentives. They should focus on developing IT infrastructure in remote and rural areas, on improving IT literacy for all and on increasing access among the more vulnerable segments of the population, especially women.

70. Many speakers at the Symposium had emphasized the need for those working in small-scale enterprises to have access to computers and Internet services, and for Internet cafés to be installed nationwide. Representatives of both industrial and developed countries had agreed that there was a need to revise outdated laws and regulations on information and communication and to strengthen protection against IT piracy, the abuse of information and unethical content.

71. The international donor community had been urged to take action to reverse the growing digital divide by expanding technical and financial cooperation for enhancing the capacity of IT policy personnel, technicians and engineers. Technical and financial cooperation was also needed for improving and expanding IT physical infrastructures, installing

electronic public administration systems and enhancing the capacity to develop and use IT products and applications.

72. The Symposium had produced a consensus on enhancing technical cooperation among developing countries in the design, development and management of information systems. Aspects of such cooperation, such as the integration of traditional knowledge and Western science, gender and computer literacy and the social implications of IT, had been addressed in a recent inter-university forum between China, Hong Kong and Malaysia. It had also been agreed at the Symposium that it was vital to consolidate the international framework for accelerating the progress of IT applications and production, by strengthening multilateral arrangements for the protection of intellectual property rights and adopting international standards for IT-related technical services and dispute settlement procedures. It had been recommended that international organizations, including the United Nations system, the World Bank and the regional development banks, should expand IT-related financial and technical cooperation, in line with the recommendations of the high-level panel of experts on information and communication technology.

73. The success of IT applications and products appeared to depend on Governments' practising a policy of economic liberalization. For instance, the removal of barriers had enabled Indian entrepreneurs working overseas to invest in software production, at home, and had made it possible for IT-related multinational corporations to follow suit, mobilizing technical and entrepreneurial talents in India at relatively low cost and subsequently exporting their output to North American and other markets. Although the contribution of the "Bangalore miracle" to spreading the benefits of IT progress within India had been limited, it had succeeded in reducing India's current account deficits, and boosting business confidence, and it was to be hoped that Governments of other developing countries would follow India's example.

The meeting rose at 6.25 p.m.