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Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)

Draft Report of the Committee on the Peaceful Uses of Outer Space on the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space: Chapter IV, "Synergies between the implementation of the recommendations of UNISPACE III and the results of global conferences held within the United Nations system and other global initiatives"

The present document contains a draft text for Chapter IV, "Synergies between the implementation of the recommendations of UNISPACE III and the results of global conferences held within the United Nations system and other global initiatives". The text will be distributed in all languages of the United Nations as document A/AC.105/C.1/L.272/Add.5

Draft report of the Committee on the Peaceful Uses of Outer Space on the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)

Addendum

IV. Synergies between the implementation of the recommendations of UNISPACE III and the results of global conferences held within the United Nations system and other global initiatives

[Note: The draft text of Chapter IV below has been prepared based on the results of the correlation between the recommendations of UNISPACE III and those emanating from the United Nations Millennium Summit (New York, 6-8 September 2000), the World Summit on Sustainable Development(Johannesburg, South Africa, 26 August – 4 September 2002) and the first phase of the World Summit on the Information Society (Geneva, Switzerland, 10-12 December 2003) as reflected in the table contained in document A/AC.105/C.1/2004/CRP.10.]

1. "The Space Millennium: Vienna Declaration on Space and Human Development"[1] adopted by UNISPACE III contains the nucleus of a strategy to address global challenges in the future. In identifying the global challenges and developing a draft of such strategy, the Committee on the Peaceful Uses of Outer Space took into account the results of the global conferences held by the United Nations in the 1990's that identified priorities for the twenty-first century to promote human development. Those priorities provided the basis for the discussions at the United Nations Millennium Summit. The goals enshrined in the United Nations Millennium Declaration were further examined by the subsequent United Nations global conferences to develop plans for specific actions to be undertaken.

2. Many of the actions called for in the Vienna Declaration have relevance to the goals and objectives of the United Nations Millennium Summit, the World Summit on Sustainable Development and the World Summit on the Information Society, all of which were convened after UNISPACE III. The implementation of those actions recommended by UNISPACE III would contribute to making progress in the follow-up actions resulting from those global conferences.

3. Following UNISPACE III, the Committee and the Office for Outer Space Affairs, as well as individual members of the Committee and their space agencies, increased their efforts to bring to the attention of the global conferences of the United Nations the societal benefits derived from space science and technology and their applications. One example of such efforts is the initiative taken by the

[1] *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 19-30 July 1999* (United Nations publication, Sales No. E.00.I.3), chap. I, resolution 1.

Chairman of the Committee to send a letter to the Secretary-General in 2001, to draw his attention to the need to consider the contributions of space science and technology to a greater extent in the implementation of the recommendations of major United Nations conferences.[2] The Committee and its Scientific and Technical Subcommittee followed this initiative by developing a statement of the Committee to be presented to the World Summit on Sustainable Development.[3] The Committee on Earth Observation Satellites (CEOS) actively participated in the preparatory process leading to the World Summit and made important contributions to its outcome.

4. In its Plan of Implementation, the World Summit on Sustainable Development recognized satellite remote sensing and satellite global positioning as means of implementation of its recommended actions[4]. The World Summit promoted the increased use of satellites particularly in the areas of water resources management, systematic observation of Earth's atmosphere, land and oceans as well as disaster management.[5]

5. The outcome of the first phase the World Summit on the Information Society also reflects the increased efforts of the Committee and the Office to link the societal benefits of space applications to the goals of the global conferences. At its fortieth session, in 2003, the Scientific and Technical Subcommittee underlined the importance of the Summit and recommended the active participateion of the Committee and the Office in both phases of the Summit.[6] As contributions to the discussions in the first phase of the Summit, the Office submitted to the secretariat of the Summit the results of the United Nations/Thailand Workshop on the Contributions of Space Communication Technology to Bridging the Digital Divide (Bangkok, 1-5 September 2003).[7] During the first phase of the Summit, the Office also organized a Panel of Experts on the topic of the Workshop as one of the side events of the Summit.

6. In its Plan of Action,[8] the World Summit on the Information Society recognized the role of satellite as a means to develop and strengthen national, regional and international broadband network infrastructure. It called for support to promote the provision of global high-speed satellite services for underserved areas such as remote and sparsely populated areas.[9] The Summit also encouraged the use of unused wireless capacity, including satellite, in developed countries and in particular in developing countries, to provide access in remote areas, especially in

[2] A/56/306.
[3] *Official Records of the General Assembly, Fifty-seventh Session, Supplement No. 20* (A/57/20), annex III.
[4] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August – 4 September 2002* (United Nations publication, Sales No. E.03.II.A.1), chap. I, resolution 2, paras. 110 (b), 132, 132 (a), 133 (b) and (c).
[5] Ibid., paras. 28, 37 (c) and 38 (g).
[6] A/AC.105/804, para. 141.
[7] For full report of the Workshop, see A/AC.105/810.
[8] WSIS-03/GENEVA/DOC/5-E.
[9] Ibid., para. 9 d).

developing countries and countries with economies in transition, and to improve low-cost connectivity in developing countries.[10]

7. While the World Summit on Sustainable Development and the World Summit on the Information Society identified specific areas where space science and technology and their applications could play an important role, there are many other areas where they could contribute to the implementation of the outcomes of those summits and of the United Nations Millennium Declaration. Synergy between the follow-up activities of UNISPACE III and those of the global conference of the United Nations system could be further increased.

8. The programme budget approved for the programme on the peaceful uses of outer space for the biennium 2004-2005[11] reflects the importance of increasing such synergies. It indicates that the strategy to address global challenges as articulated in the Vienna Declaration will continue to provide the policy framework for the programme while placing particular emphasis on promoting the use of space science and technology and their applications in implementing the United Nations Millennium Declaration and follow-up actions of the World Summit on Sustainable Development.[12]

A. United Nations Millennium Declaration

9. The Vienna Declaration called for a several actions to protect the Earth's environment and to manage its resources. Those actions are based on the respect for nature, one of the fundamental values identified in the United Nations Millennium Declaration.

10. In particular, the implementation of the recommendations of UNISPACE III to develop a comprehensive worldwide environmental monitoring strategy[13] and to improve the management of Earth's natural resources[14] would directly support many of the actions called for in the Millennium Declaration to protect the common environment. Space applications provide useful tools, for example, to manage forest resources and to support the full implementation of the Convention on Biological Diversity and the Convention to Combat Desertification.[15] The recommendation of UNISPACE III to improve the management of Earth's natural resource with the use of remote sensing data would also support actions called for in the Millennium Declaration to support development and poverty eradication, for example, through the development of water management strategies.[16]

11. Many of the actions called for in the Vienna Declaration to use space applications for human security, development and welfare support global efforts to promote equality, another fundamental value identified in the Millennium Declaration, to ensure that no individual and no nation must be denied the

[10] Ibid., para. 9 i).
[11] *Official Records of the General Assembly, Fifty-eighth Session, Supplement No. 6* (A/58/6/Rev.1), Part II, Section 6.
[12] Ibid., paras. 6.6 and 6.7.
[13] Recommendation no.1 of UNISPACE III.
[14] Recommendation no. 2 of UNISPACE III.
[15] General Assembly resolution 55/22, para. 23.
[16] Ibid.

opportunity to benefit from development. Those actions contribute to the development and poverty eradication, protection of the common environment, and protection of the vulnerable in all parts of the world.

12. The implementation of the recommendation of UNISPACE III to improve public health services by expanding and coordinating space-based services for controlling infectious diseases[17], for example, could help achieve the goal indicated in the Millennium Declaration to halve or begin to reverse by 2015 the scourge of malaria and other major diseases.[18] Remote sensing could be integrated into disease surveillance systems, to be developed into early warning systems for infectious diseases such as malaria, cholera, hantavirus and Rift Valley fever.

13. The implementation of an integrated, global system to manage natural disaster mitigation, relief and prevention efforts, another recommendation of UNISPACE III[19] would contribute to reducing the number and effects of natural and man-made disasters and ensuring that all civilian populations that suffer disproportionately the consequences of natural disasters are given every feasible assistance and protection.[20]

14. The Vienna Declaration called for an action to promote literacy and enhance rural education by improving and coordinating education programmes and satellite infrastructure.[21] Undertaking this action would help achieve another goal of the Millennium Declaration to provide equal access to all girls and boys by 2015 to all levels of education.[22] Providing education and training opportunities to all people is fundamental to economic, social and cultural development, and to poverty eradication. Many of the actions recommended in the Vienna Declaration to enhance education and training opportunities, therefore, contribute to the poverty eradiation. Examples of such include those actions to enhance capacity-building through the development of human and budgetary resources[23] and to encourage all States to provide their children and youth, especially females, through appropriate educational programmes, with opportunities to learn more about space science and technology and their importance to human development.[24]

15. The Vienna Declaration also includes actions to strengthen and reposition space activities in the United Nations system. For example, strengthening the coordination of mutually beneficial activities between the Committee and other United Nations entities[25], called for in the Vienna Declaration, would help achieve better coordination between the United Nations and its agencies, an action called for in the Millennium Declaration.[26] Involvement of civil society in the work of the United Nations and strengthening of the partnerships with the private sector are an

[17] Recommendation no. 6 of UNISPACE III.
[18] Ibid., para. 19.
[19] Recommendation no. 7 of UNISPACE III.
[20] Ibid., para. 23.
[21] Recommendation no. 8 of UNISPACE III.
[22] Ibid., para. 19.
[23] Recommendation no. 17 of UNISPACE III.
[24] Recommendation no. 21 of UNISPACE III.
[25] Recommendation no. 29 of UNISPACE III.
[26] Ibid., para. 30.

area where both the Vienna Declaration and the Millennium Declaration call for actions.

16. All the actions called for in the Vienna Declaration would, in particular, benefit Africa, thus contributing to achieving goals enshrined in the Millennium Declaration to meet the special needs of Africa.

Table 1: Synergies between the recommendations of UNISPACE III and actions called for in the United Nations Millennium Declaration

Recommendations of UNISPACE III	*United Nations Millennium Declaration*
Protection of the Earth's environment and managing its resources - Environmental monitoring strategy - Management of natural resources	- Values and principles: respect for nature - Development and poverty eradication - Protecting our common environment - Meeting the special needs of Africa
Use of space applications for human security, development and welfare - Public health - Disaster management - Tele-education - Sustainable development	- Values and principles: Equality - Development and poverty eradication - Protecting our common environment - Meeting the special needs of Africa - Protecting the vulnerable
Enhancing education and training opportunities and ensuring public awareness of the importance of space activities - Capacity building - Information sharing and spin-offs from space activities - Opportunities for children and youth to learn about and participate in space activities	- Development and poverty eradication - Human rights, democracy and good governance - Meeting the special needs of Africa
Strengthening and repositioning of space activities in the United Nations system - Reaffirming the role of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies and its secretariat - Development of space law - Coordination between the Committee and other United Nations entities - New and innovative funding sources - Promotion of the peaceful uses of outer space with all States, international organizations and civil society, including industry	Strengthening the United Nations Development and poverty eradication

B. Plan of Implementation of the World Summit on Sustainable Development

17. Space science and technology and their applications permeate various aspects of sustainable development. They serve as a useful tool for monitoring and conducting assessment of environment, managing the use of natural resources, providing early warnings, providing education and health services to rural and remote areas and connecting people around the world. Capacity building in the use and applications of space science and technology is a backbone to the efforts to promote sustainable development in these areas where space-based services and systems could serve as useful tools.

18. The recommendation of UNISPACE III to assist States, especially developing countries, in applying the results of space research with a view to promoting the sustainable development of all people[27] provides an overarching policy framework for linking the follow-up actions of UNISPACE III to the implementation of the outcome of the World Summit on Sustainable Development. This recommendation has also relevance to a several actions identified in the Johannesburg Plan of Implementation as means of implementation, such as to encourage networking with and between centres of scientific excellence in developing countries, to establish regular channels between policy makers and the scientific community to request and receive science and technology advice for the implementation of Agenda 21,[28] and to create and strengthen networks for science and education for sustainable development.[29]

19. The recommendations contained in the Vienna Declaration would, particularly those relating to the protection and management of the Earth's environment and its resources have direct relevance to many of the actions recommended in the Plan of Implementation of the World Summit on Sustainable Development ("Johannesburg Plan of Implementation"). For example, the recommendations of UNISPACE III to develop a comprehensive, worldwide, environmental monitoring strategy for long-term global observations by building on existing space and ground capabilities[30] and to improve the management of Earth's natural resources by increasing and financing the research and operational use of remote sensing data[31] would support a number of actions called for in the Johannesburg Plan of Implementation to monitor the quality and quantity of water resources and to enhance their use and management. Remote-sensing and satellite technologies have been recognized by the World Summit as a means to improve water resource management and scientific understanding of the water cycle. Other actions contained in the Johannesburg Plan of Implementation that have relevance to those two recommendations of UNISPACE III relate to, inter alia, the management of oceans and coastal environment as well as marine and

[27] Recommendation no. 11 of UNISPACE III.

[28] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (United Nations publication, Sales No.E.93.I.8 and corrigenda), vol. I: *Resolutions Adopted by the Conference*, resolution 1, annex II.

[29] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August – 4 September 2002* (United Nations publication, Sales No. E.03.II.A.1), chap. I, resolution 2, paras. 108 and 111.

[30] Recommendation no. 1 of UNISPACE III.

[31] Recommendation no. 2 of UNISPACE III.

coastal ecosystems, desertification and drought, forest management, and climate change. The recommendation of UNISPACE III to improve the management of Earth's natural resources also supports a number of actions in the Johannesburg Plan of Implementation in the area of poverty eradication, such as those to develop national programmes that should enable those living in poverty to have increased access to productive resources, in particular land and water.[32]

20. In the area of climate change, the recommendations of UNISPACE III to develop and implement the Integrated Global Observing Strategy[33] has direct relevance to, for example, the action contained in the Johannesburg Plan of Implementation to strengthen cooperation and coordination among global observing systems and research programmes for integrated global observations.[34] UNISPACE III recommendation to enhance weather and climate forecasting by international cooperation in the field of meteorological satellite applications[35] also has relevance to many actions in the Johannesburg Plan of Implementation in the areas of water resources management, disaster management and climate change.

21. A set of recommendations of UNISPACE III relating to the use of space applications for human security, development and welfare support many actions contained in the Johannesburg Plan of Implementation in the areas of poverty eradication, health and protection and management of natural resource base of economic and social development. The recommendation of UNISPACE III to improve public health services by expanding and coordinating space-based services for telemedicine and for controlling infectious diseases[36] supports a several actions called for in the Johannesburg Plan of Implementation in the area of health and sustainable economic and social development. Space-based services for telemedicine would support actions not only to promote equitable and improved access to affordable and efficient health-case services,[37] but also to promote and develop partnerships to enhance health education, to achieve improved health literacy on a global basis by 2015.[38] In addition to the use of telemedicine and tele-health, the use of remote sensing and geographic information systems (GIS) could support the fight against and control of communicable diseases, such as Ebola, and non-communicable diseases.[39]

22. An integrated, multi-hazard, inclusive approach to address vulnerability, risk assessment and disaster management, including prevention, mitigation, preparedness, response and recovery, was identified by the World Summit as an essential element of a safer world in the twenty-first century.[40] Many of the actions that were considered necessary by the World Summit in this regard would greatly

[32] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August – 4 September 2002* (United Nations publication, Sales No. E.03.II.A.1), chap. I, resolution 2, para. 7(c).
[33] Recommendation no. 3 of UNISPACE III.
[34] Ibid, para. 132 (a).
[35] Recommendation no. 4 of UNISPACE III.
[36] Recommendation no. 6 of UNISPACE III.
[37] Ibid., para. 54(b).
[38] Ibid., para. 54(e).
[39] Ibid., para. 64 (b) and (e)
[40] Ibid., para. 37.

benefit from the implementation of an integrated, global system to manage natural disaster mitigation, relief and prevention efforts through Earth observation, communications and other space-based services, making maximum use of existing capabilities and filling gaps in worldwide satellite coverage, a recommendation of UNISPACE III[41]. The combined use of Earth observation, communications, as well as positioning satellites would support all phases of disaster management.

23. Applications of communications satellites would enhance not only access to health services but also to education and training opportunities particularly in rural and remote areas. They would play an important role in bridging the digital divide. The recommendations of UNISPACE III to promote literacy and enhance rural education by improving and coordinating educational programmes and satellite-related infrastructure[42] and to improve knowledge-sharing by giving more importance to the promotion of universal access to space-based communication services[43] concern applications of communications satellites and support many actions called for in the Johannesburg Plan of Implementation to ensure that children everywhere will have equal access to all levels of education.[44] The implementation of the recommendation of UNISPACE III to improve knowledge – sharing would support sustainable development in a globalizing world. For example, it is directly linked with the acion called for in the Plan to assist developing countries and countries with economies in transition in narrowing the digital divide and harnessing the potential of information and communication technologies (ICTs) for development, which would support the World Summit on the Information Society.[45] (See section C below.)

24. The use and applications of global navigation satellite systems (GNSS) support sustainable development not only through enhancing safety of transporation but also through many other areas, such as the management of environment and disasters, search and rescue, management of natural resources, agriculture, mapping, surveying and Earth sciences. In this regard, the implementation of the recommendation of UNISPACE III to promote the enhancement of, universal access to and compatibility of space-based navigation and positioning systems[46] would help undertake many of the actions called for in the Johannesburg Plan of Implementation those to protect and manage the natural resource base of economic and social development, as well as some of the actions to eradicate poverty.

25. Capacity building is a fundamental element of sustainable development. Throughout the Johannesburg Plan of Implementation, the World Summit on Sustainable Development called for a number of actions in various areas to strengthen institutional capacity and enhance education and training opportunities. UNISPACE III placed emphasis on the importance of capacity building in the use of space science and technology and their applications, particularly in developing countries. The action called for in the Vienna Declaration, in particular, to enhance capacity-building through the development of human and budgetary resources, the

[41] Recommendation no. 7 of UNISPACE III.
[42] Recommendation no. 8 of UNISPACE III.
[43] Recommendation no. 9 of UNISPACE III.
[44] Ibid., para. 7(g).
[45] Ibid., para. 52.
[46] Recommendation no. 10.

training and professional development of teachers, the exchange of teaching methods, materials and experience and the development of infrastructure and policy regulations[47] has direct relevance to a number of actions identified in the Plan as means of implementation. The use of remote sensing and satellite technologies and satellite data is also specifically mentioned in the Plan in the areas of water resources management and disaster management.[48]

26. Providing equal access to education has been identified by the World Summit on Sustainable Development as a means to achieve poverty eradication. In this regard, some of the actions called for in the Plan to eradicate poverty are related to the recommendation of UNISPACE III to enhance capacity-building, mentioned above in paragraph 25, as well as the recommendation to encourage all States to provide their children and youth, especially females, through appropriate education programmes, with opportunities to learn more about space science and technology and their importance to human development[49].

27. The Johannesburg Plan of Implementation contains sets of recommendations aimed at sustainable development of small island developing States and sustainable development for Africa. Many of the recommendations of UNISPACE III concerning specific application fields and cross-cutting areas could support many of the actions recommended in the Johannesburg Plan of Implementation to enhance sustainable development of Africa, in particular recommendations relating to environmental monitoring strategy, management of natural resources and capacity building.[50] Those recommendations relating to the management of natural resources, climate and weather forecasting, public health and disaster management[51] are related to some of the actions recommended in the Plan for sustainable development of small island developing States.

28. The Johannesburg Plan of Implementation contains actions to promote sustainable development in a globalizing world.[52] The intrinsic nature of space-based systems as a global system contributed to some extent to the globalization of the world, presenting both challenges and opportunities. The strategy presented in the Vienna Declaration is a blue map for turning the challenges of globalization particularly for developing countries into opportunities to leapfrog the development, reducing the risk of marginalization and vulnerability to changing world in terms of environmental conditions, pace of commerce and trade, flow of goods and people, or implications of economies and policies beyond national borders.

[47] Recommendation no. 17.
[48] Ibid., paras. 28 and 37 (c).
[49] Recommendation no. 21.
[50] Recommendations no. 1, 2 and 17 of UNISPACE III.
[51] Recommendations no. 2, 4, 6 and 7 of UNISPACE III.
[52] Ibid., paras. 47-52.

Table 2: Synergies between the recommendations of UNISPACE III and actions called for in the Plan of Implementation of the World Summit on Sustainable Development

Recommendations of UNISPACE III	*Plan of Implementation of the World Summit on Sustainable Development*
Protection of the Earth's environment and managing its resources - Environmental monitoring strategy - Management of natural resources - Integrated Global Observing Strategy - Weather and climate forecasting	- Poverty eradication - Changing unsustainable patterns of consumption and productions - Protecting and managing the natural resource base of economic and social development -- Water resources -- Sustainable fisheries -- Management of oceans, coastal environment, marine and coastal ecosystems -- Climate change, transboundary air pollution, ozone hole -- Disaster management -- Agriculture -- Desertification and drought -- Mountain ecosystems -- Forest management -- Sustainable mining - Sustainable development for Africa - Sustainable development of small island developing States - Means of implementation
Use of space applications for human security, development and welfare - Public health - Disaster management - Tele-education - Knowledge-sharing - Global navigation satellite systems - Sustainable development	- Poverty eradication - Protecting and managing the natural resource base of economic and social development -- Water resources -- Sustainable fisheries -- Disaster management -- Mountain ecosystems - Health and sustainable development - Sustainable development in a globalizing world - Sustainable development for Africa - Sustainable development of small island developing States - Means of implementation
Enhancing education and training opportunities and ensuring public awareness of the importance of space activities - Capacity building - Information sharing and spin-offs from space activities - Opportunities for children and youth to learn about and participate in space activities	- Poverty eradication - Protecting and managing the natural resource base of economic and social development -- Water resources -- Disaster management -- Mountain ecosystems - Sustainable development for Africa - Means of implementation

Recommendations of UNISPACE III	*Plan of Implementation of the World Summit on Sustainable Development*
Strengthening and repositioning of space activities in the United Nations system	- Means of implementation

C. Plan of Action: First Phase of the World Summit on the Information Society

29. Increased connectivity among countries, communities and individuals around the world is one of the aspects of the globalization of the world to which space technology and its applications significantly contributed. Communication and broadcasting satellites played an important role particularly in disseminating a vast amount of images, data and information from a single point to multiple points around the world. They could also play a significant role in ultimately bridging the digital divide.

30. Some of the recommendations of UNISPACE III aim particularly at facilitating and expanding the use of satellite communications. Their implementation would contribute to carrying out the Plan of Action adopted at the first phase of the World Summit on the Information Society[53] particularly to enhance information and communication infrastructure and access to information and knowledge.

31. The implementation of the recommendations of UNISPACE III to develop a comprehensive, worldwide environmental monitoring strategy[54] and to improve the management of Earth's natural resources[55] would involve the use of satellites to facilitate access to and disseminate information. Those recommendations have close relevance to the action called for in the Plan of Action of the World Summit to use and promote information and communication technologies (ICTs) as an instrument for environmental protection and the sustainable use of natural resources as well as to ensure the systematic dissemination of information using ICTs on agriculture, fisheries, forestry and food.[56]

32. Some of the actions called for in the Plan of Action of the World Summit to implement e-strategies, such as in e-environment, e-agriculture, e-health and e-science, would benefit from the use of communication satellites specifically promoted or implied in the recommendations of UNISPACE III to use space applications for human security, development welfare. In particular, the recommendation to improve public health services by expanding and coordinating space-based services for telemedicine[57] has direct relevance to the action called for in the Plan of Action to encourage the adoption of ICTs to improve and extend health care and health information system to remote and underserved areas.[58] In the area of e-health, the Plan also calls for an action to strengthen and expand ICT-

[53] WSIS-03/GENEVA/DOC/5-E.
[54] Recommendation no. 1.
[55] Recommendation no. 2.
[56] Ibid., paras. 20 a) and 21 a).
[57] Recommendation no. 6.
[58] Ibid., para. 18 e).

based initiatives for providing medical and humanitarian assistance in disasters and emergencies.[59] This action is also related to the recommendation of UNISPACE III to implement an integrated, global system to manage natural disaster mitigation, relief and prevention efforts.[60]

33. Tele-education is another area where there is synergy between the recommendations of UNISPACE III and those of the World Summit on the Information Society. In the efforts to enhance information and communication infrastructure, the World Summit, in its Plan of Action, called for an action to provide and improve ICT connectivity for all schools and universities and other institutions accessible to the public.[61] In the Vienna Declaration, UNISPACE III recommended an action to promote literacy and enhance rural education by improving and coordinating educational programmes and satellite-related infrastructure.[62]

34. The recommendation of UNISPACE III to improve knowledge-sharing by giving more importance to the promotion of universal access to space-based communication services and by devising efficient policies, infrastructure, standards and applications in development projects[63] has close link with a number of actions included in the Plan of Action of the World Summit. The implementation of thi recommendation, for example, would support the actions called for by the World Summit to devise appropriate universal access policies and strategies, and their means of implementation, as well as to develop and strengthen broadband network infrastructure, including delivery by satellite and other systems, to help in providing the capacity to match the needs of countries and their citizens and for the delivery of new ICT-based services.

35. A number of actions called for in the Plan of Action in the area of capacity building relate to the use of communications satellites as a tool to enhance education and training opportunities particularly in rural and remote areas. Some of those actions relate to strengthening the capacity of countries to develop e-strategies, which would include the integration of satellite communications into the information and communications infrastructure. The implementation of the recommendation of UNISPACE III to enhance capacity building in space science and technology and their applications[64] could support the efforts to undertake many of those actions called for by the World Summit.

Table 3: Synergies between the recommendations of UNISPACE III and actions called for in the Plan of Action of the World Summit on the Information Society

Recommendations of UNISPACE III	***Plan of Action of the World Summit on the Information Society***
Protection of the Earth's environment and managing its resources - Environmental monitoring strategy - Management of natural resources	- E-environment - E-agriculture

[59] Ibid., para. 18 f).
[60] Recommendation no. 7.
[61] Ibid., para. 9 c).
[62] Recommendation no. 8.
[63] Recommendation no. 9.
[64] Recommendation no. 17.

Recommendations of UNISPACE III	*Plan of Action of the World Summit on the Information Society*
Use of space applications for human security, development and welfare - Public health - Disaster management - Tele-education - Knowledge-sharing - Sustainable development	- Information and communication infrastructure - E-health - E-environment - E-agriculture - E-science - Access to information and knowledge - Capacity building - Role of governments and all stakeholders in the promotion of ICTs for development
Enhancing education and training opportunities and ensuring public awareness of the importance of space activities - Capacity building	- Information and communication infrastructure - E-health - E-science - Capacity building - Role of governments and all stakeholders in the promotion of ICTs for development - Media - Digital solidarity agenda
Strengthening and repositioning of space activities in the United Nations system - Promotion of the peaceful uses of outer space with all States, international organizations and civil society, including industry	- Role of governments and all stakeholders in the promotion of ICTs for development - International and regional cooperation

D. Other Global Initiatives

36. The implementation of the recommendations of UNISPACE III could contribute to many global initiatives that are undertaken after UNISPACE III outside the United Nations system with the aim of supporting social, economic and cultural development. One example is the Global Monitoring for Environment and Security (GMES), a joint initiative of the European Space Agency (ESA) and the European Community (see also paragraph […]). Approved by the ESA Ministerial Council in November 2001, the Earthwatch GMES Services Element (GSE) is expected to deliver policy-relevant services to end-users primarily, although not exclusively, from Earth observation sources and to enable end-users to become key players in the move from present generation Earth observation satellites to future European systems that would deliver vital information on global environment and security. There are currently ten GSE services covering such applications as urban mapping, water management, forest fire and flood management, crop monitoring, ocean surveillance and ice monitoring. The focus areas of GSE include making GMES global. The activities associated with GMES contribute to the implementation of recommendations of UNISPACE III particularly in the areas of

environmental monitoring, management of natural resources and disaster management.[65]

37. Following the agreement of the leaders of G-8 partners in Evian, France, in June 2003, to the Cooperative Action on Science and Technology for Sustainable Development, the Earth Observation Summit was held in Washington, D.C. in July 2003. The Earth Observation Summit launched an initiative to build a comprehensive, coordinated and sustained Earth observation system of systems and established an intergovernmental ad hoc Group of Earth Observations, consisting of more than 30 countries and 20 international entities. This is another example of a global initiative that have relevance to the recommendations of UNISPACE III. The Group of Earth Observations aims to develop by early 2005 a ten-year implementation plan for building such a system, taking into account the findings and recommendations of its five sub-groups on architecture, data utilization, user requirements and outreach, capacity building, and international cooperation. Follow-up actions to be undertaken as part of the implementation of recommendations of UNISPACE III, particularly in the areas of environmental monitoring strategy, management of natural resources, integrated global observing strategy, weather and climate forecasting, public health, disaster management, sustainable development, capacity building and awareness increase[66], could complement and create synergies with the efforts to develop and operate such Earth observation system of systems.

[65] Recommendations 1, 2 and 7 of UNISPACE III.
[66] Recommendations 1, 2, 3, 4, 6, 7, 11, 17 and 18 of UNISPACE III.