



General Assembly

Distr.: Limited
23 May 2003

Original: English

Committee on the Peaceful Uses of Outer Space

Forty-sixth session

Vienna, 11-20 June 2003

Item 7 of the provisional agenda*

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

Input from the action teams for the report of the Committee on the Peaceful Uses of Outer Space to the General Assembly at its fifty-ninth session for its review of the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)

Note by the Secretariat

1. At its fortieth session, the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space continued to consider, through its Working Group of the Whole, the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III). The 11 action teams that had been established by the Committee on the Peaceful Uses of Outer Space at its forty-fifth session¹ reported to the Working Group of the Whole on the work that they had conducted to date.
2. The Scientific and Technical Subcommittee noted with appreciation the efforts made by the chairpersons and members of the 11 action teams in making progress in the implementation of the recommendations of UNISPACE III for which they were responsible. The Subcommittee noted with satisfaction the substantial progress achieved by many action teams (A/AC.105/804, para. 63).
3. The Scientific and Technical Subcommittee welcomed the establishment by the Committee at its forty-fifth session of a working group to prepare a report of the

* A/AC.105/L.244



Committee for submission to the General Assembly, in order for the Assembly to review and appraise, at its fifty-ninth session, in 2004, the implementation of the recommendations of UNISPACE III (A/AC.105/804, para. 67). It was noted that the report of the working group contained a list of sources of information that should be taken into account in preparing the report as well as an indicative, preliminary draft outline of the report.² The sources of information included recommendations and reports of the action teams.

4. With regard to the reports and recommendations of the action teams to be considered for incorporation into the report to the General Assembly, the Working Group of the Whole agreed to circulate a template to the chairpersons of the action teams. The Working Group of the Whole agreed that the action teams, in particular those which would have completed their work by June 2003, should complete and submit the template by the beginning of May 2003, for consideration by the Committee at its forty-sixth session (A/AC.105/804, annex II, para. 15 and appendix I).

5. Annexes I-XI of the present document contain the input from the 11 action teams established by the Committee at its forty-fifth session, in 2001.

6. As at 15 May 2003, the Action Team on Sustainable Development, to implement recommendation 11 of UNISPACE III, and the Action Team on Innovative Funding Sources, to implement recommendation 32 of UNISPACE III, had completed their work according to the work plans that they had submitted to the Scientific and Technical Subcommittee at its thirty-ninth session. The final report of the Action Team on Sustainable Development (A/AC.105/C.1/L.264) was submitted to the Subcommittee at its fortieth session. The final report of the Action Team on Innovative Funding Sources (A/AC.105/L.246) will be before the Committee at its forty-sixth session.

7. The Working Group of the Committee will consider the input contained in the templates completed by the 11 action teams, in preparing the report of the Commission to the General Assembly referred to in paragraph 3 above, in particular in reviewing the progress achieved by the action teams, identifying gaps in the implementation of the recommendations of UNISPACE III and considering the way ahead. As the action teams make further progress in their work and prepare their final reports for submission to the Scientific and Technical Subcommittee at its forty-first session, in 2004, it is anticipated that the input contained in the templates will be refined and revised as necessary and appropriate. Any revisions to the templates and additional input provided by the action teams will be considered by the Subcommittee at its forty-first session, when it finalizes its contributions to the report to the General Assembly.

8. Examination of the information provided by the 11 action teams indicates that most of them have completed their review of the current status of the matters relevant to the recommendations of UNISPACE III for which they are responsible. Findings of some of the action teams are based on the results of comprehensive surveys that they have conducted among the Member States, entities of the United Nations system and organizations with space-related activities. Some of them will require further work such as defining specific, concrete action necessary for the implementation of the recommendations, identifying the entities to undertake such actions and suggesting time frames.

9. In its resolution 57/116 of 11 December 2002, the General Assembly agreed that Member States should provide full support to the action teams in conducting their work. However, some of the action teams have indicated that the limited contributions from their members constituted impediments to their work. As the action teams enter the critical phase of defining actions to be undertaken to implement the recommendations for which they are responsible, the Committee might wish to call on all the members of the action teams, as well as other Member States, to provide full support to the work.

Notes

¹ *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 20 and corrigendum (A/56/20 and Corr.1), paras. 50 and 55.*

² *Ibid., Fifty-seventh Session, Supplement No. 20 (A/57/20), annex I.*

Annex I

Input from the Action Team on the Environmental Monitoring Strategy

<i>Action team number:</i> 1	<p style="text-align: center;"><i>Chairpersons:</i> Parviz Tarikhi (Islamic Republic of Iran), Abdul Rahim Loulou (Syrian Arab Republic) and A. Movlyav (Russian Federation)</p> <p style="text-align: center;"><i>Secretariat:</i> (Islamic Republic of Iran)</p>
1. <i>Membership:</i>	<p>(a) <i>Countries:</i> Argentina, Australia, Belarus, China, France, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Lebanon, Mexico, Mongolia, Morocco, Nigeria, Pakistan, Philippines, Portugal, Russian Federation, Saudi Arabia, Syrian Arab Republic, United Kingdom of Great Britain and Northern Ireland, United States of America;</p> <p>(b) <i>Organizations:</i> Department of Economic and Social Affairs of the United Nations Secretariat, United Nations Office on Drugs and Crime, Economic Commission for Europe, Economic and Social Commission for Asia and the Pacific, United Nations Environment Programme, United Nations Educational, Scientific and Cultural Organization,^a European Space Agency, International Society for Photogrammetry and Remote Sensing, Space Generation Advisory Council and Manila Observatory.</p>
2. <i>Brief mission statement:</i>	<p>(a) Address the needs and requirements for use and protection of environment through improved monitoring methods approved by different countries and organizations;</p> <p>(b) Develop a comprehensive worldwide environmental monitoring strategy for long-term global observations by building on existing space and ground capabilities.</p>
3. <i>Findings:</i>	<p>(a) In order to implement a comprehensive environmental monitoring strategy the available and produced data should be shared between the countries and organizations for better efficiency and economy;</p> <p>(b) The developed countries can support setting up the strategy technically while developing countries can provide field and ground data and information;</p> <p>(c) The partnership between relevant national, regional and international institutions should be enhanced, and the needed capacity should be built.</p>
4. <i>Recommendations for further action:</i>	<p>(a) Greater technical and scientific cooperation;</p> <p>(b) Enhancement of knowledge and exchange of experience among countries and organizations;</p> <p>(c) Development of policies leading to sustainable environmental development;</p> <p>(d) Anchoring the current development and national environmental action plans and rural development strategies.</p>

<p>◦. <i>Implementation already initiated:</i></p> <p>(a) A questionnaire on the environmental monitoring and observation capabilities and possibilities of the member countries and organizations was prepared and distributed among members of the Action Team;</p> <p>(b) The Action Team made efforts to expand and develop its activities and coverage of work by accepting new members, such as the Aquatic Ecosystem Health and Management Society.</p>
<p>∩. <i>Indication of impediments to implementation:</i></p> <p>Limited contribution from the members of the Action Team to its work.</p>
<p>∪. <i>Benefits to be derived from the implementation:</i></p> <p>(a) Ensuring the sustainable use of ecosystems;</p> <p>(b) Promoting national, regional and global cooperation on critical environmental issues.</p>
<p>∧. <i>Progress made by the Action Team:</i></p> <p>(a) The Action Team has held three meetings in Vienna during the sessions of the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee;</p> <p>(b) The Action Team is in the process of compiling comprehensive information on environmental monitoring strategy provided by its members.</p>

^a To be contacted through the Office for Outer Space Affairs of the United Nations Secretariat.

Annex II

Input from the Action Team on the Management of Natural Resources

<i>Action team number: 2</i>	<i>Chairperson: V. Jayaraman (India)</i> <i>Secretariat: (to be determined)</i>
<p>1. <i>Membership:</i></p> <p>(a) <i>Countries:</i> Australia, Azerbaijan, Brazil, Bulgaria, Canada, Chile, China, Czech Republic, France, India, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Lebanon, Mongolia, Morocco, Nigeria, Pakistan, Philippines, Portugal, Russian Federation, Saudi Arabia, Syrian Arab Republic, United Kingdom of Great Britain and Northern Ireland and United States of America;</p> <p>(b) <i>Organizations:</i> Economic Commission for Europe, Economic and Social Commission for Asia and the Pacific, United Nations Educational, Scientific and Cultural Organization,^a Space Generation Advisory Council, Manila Observatory and Philippine Astronomical Society.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>Natural resources support the livelihoods of a vast majority of the population in developing countries. The millennium development goals (A/56/326, sect. III) and the World Summit on Sustainable Development have provided the framework for managing natural resources through the ecosystem approach, community participation and “Green governance”. The report of the Action Team harmonizes the recommendations of UNISPACE III on natural resource management in line with the perspectives of the millennium development goals and the World Summit.</p>	
<p>3. <i>Findings:</i></p> <p>(a) In recent years, Earth observation technologies (remote sensing, geographic information systems (GIS) and modelling) are being used operationally to put into the context the ecosystem approach towards policy formulation and planning, working out the suitable interventions and implementation mechanisms and supporting directly the basis of livelihoods for poor fishermen and farmers;</p> <p>(b) Promoting large-scale operationalization of Earth observation technologies, by Governments, private agencies and non-governmental organizations and at the community and stakeholders levels is of great significance. However, it is essential to understand the exact needs for information to be useful at all the levels. The use of Earth observation technologies must involve all the stakeholders, in order to become participatory in nature. One way of bringing together all the stakeholders could be through pilot or demonstration projects. The results of such a project are more likely to be accepted if a “bottom-up” approach is followed. The involvement of non-governmental organizations helps in integrating concerns at the grass-roots level. The use of Earth observation technologies as information support for “Green governance” and for the implementation of international protocols and conventions holds considerable promise and its success has already been demonstrated in some of the developing countries in the region of Asia and the Pacific;</p>	

(c) The use of Earth observation technologies involves a considerable amount of expertise as well as institutional mechanisms to deliver the services and products to the end-users. Among the capacity-building mechanisms, specialized training and institutional partnerships are important. Considering the urgent need for specialized training in the use of Earth observation applications in natural resource management, it is important to promote specialized training opportunities and disseminate the best practices through capacity-building activities.

4. *Recommendations for further action:*

(a) The use of Earth observation technologies in the natural resources management is important for the success of UNISPACE III as well as for the achievement of the millennium development goals and the implementation of the recommendations of the World Summit on Sustainable Development. The Office for Outer Space Affairs of the United Nations Secretariat can play the role of a catalyst in promoting and advocating the operational use of Earth observation technologies in building the natural resources base—especially in the framework suggested by the World Summit. The Office is an ideal platform to promote such concept by advocating the enabling policies among the Member States. This should make it possible to conduct proof-of-concept projects aimed at stakeholders and to establish a framework for international cooperation to promote the operational use of Earth observation technologies;

(b) It is important to develop a compendium highlighting best practices in Earth observation applications in natural resource management in line with the recommendations of the World Summit on Sustainable Development. With the analysis of experience and lessons learned based on the success stories gathered from different parts of the world—representing the diversity of the context and variety of the applications—the compendium will provide insights on the various operational issues and demonstrate the benefits of using Earth observation technologies to the stakeholders. The Action Team should take up this assignment as soon as possible;

(c) Earth observation applications in the natural resource sector require an interdisciplinary approach, involving database technologies, modelling frameworks, a multiplicity of themes and development of a decision support system. The interdisciplinary nature of Earth observation applications calls for focused and specialized training, taking into account the new paradigms emanating from recommendations of the World Summit on Sustainable Development. The Office for Outer Space Affairs could take the initiative to organize specialized training courses, taking advantage of the expertise and infrastructure available in the regional centres for space science and technology established in different parts of the world.

5. *Implementation already initiated:*

(a) The Space Generation Advisory Council (SGAC) is reviewing the report of the Action Team submitted to the Scientific and Technical Subcommittee at its fortieth session (A/AC.105/C.1/2003/CRP.5);

(b) The Action Team is initiating the process of compiling the compendium documenting best practices.

6. *Indication of impediments to implementation:*

The limited inputs from members of the Action Team, on success stories, lessons learned and expert opinions representing the diversity of the context and variety of Earth observation applications on the subject, hampered finalization of the report of the Action Team. Therefore, the report, in its present form, could not document the views and wisdom of all the members of the Action Team.

V. *Benefits to be derived from the implementation:*

(a) In line with the recommendations of UNISPACE III, the implementation of recommendations contained in the report of the Action Team will lead to mobilization of public opinion in favour of using Earth observation technologies in natural resource management, especially in developing countries;

(b) Integration of Earth observation in natural resource management will strengthen ongoing efforts to reach the millennium development goals and implement recommendations of the World Summit on Sustainable Development, besides supporting decisions of Governments and stakeholders worldwide on managing natural resources.

Λ. *Progress made by the Action Team:*

The Action Team is in contact with SGAC on harmonizing the report of the Action Team, taking into account the findings of other action teams.

The Action Team is making efforts to compile a compendium, documenting best practices drawn from different parts of the world in managing natural resources.

^a To be contacted through the Office for Outer Space Affairs of the United Nations Secretariat.

Annex III

Input from the Action Team on Weather and Climate Forecasting

<i>Action team number: 4</i>	<i>Chairpersons: F. D. Santos (Portugal) and D. Hinsman (World Meteorological Organization)</i> <i>Secretariat: A. Antunes (Portugal)</i>
<p>1. <i>Membership:</i></p> <p>(a) <i>Countries:</i> Argentina, Australia, Azerbaijan, Brazil, Bulgaria, Canada, China, Cuba, Czech Republic, Hungary, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Lebanon, Nigeria, Pakistan, Philippines, Portugal, Russian Federation, Saudi Arabia, Syrian Arab Republic, Turkey and United States of America;</p> <p>(b) <i>Organizations:</i> Economic and Social Commission for Asia and the Pacific, United Nations Educational, Scientific and Cultural Organization,^a World Meteorological Organization, Manila Observatory and Philippine Astronomical Society.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>To address global challenges to enhance weather and climate forecasting through expanded international cooperation in the field of meteorological satellite applications.</p>	
<p>3. <i>Findings:</i></p> <p>(a) The plans existing within the United Nations system and in particular the World Meteorological Organization (WMO) planning process directly addressed activities needed to enhance weather and climate forecasting through expanded international cooperation in the field of meteorological satellite applications;</p> <p>(b) The Action Team agreed that mechanisms within and outside of the United Nations system constituted an effective means for international cooperation to achieve the goals set forth in the WMO planning process.</p>	
<p>4. <i>Recommendations for further action:</i></p> <p>(a) Strengthen support for member States of the National Meteorological and Hydrological Services in the implementation of the WMO long-term plan, including the necessary financial resources;</p> <p>(b) Support those national and international organizations providing space systems (operational as well as research and development) that seek to meet WMO observational requirements.</p>	

◦. *Implementation already initiated:*

The present space-based observing system is adequate to provide the data, products and services required for the present weather and climate forecasting needs and the vision for the future system responds to the increased needs for weather and climate forecasting. Two specific international groups are the Coordination Group for Meteorological Satellites and the Committee on Earth Observation Satellites (CEOS). The Coordination Group started as an informal group in 1972, to coordinate the first global geostationary system amongst satellite providers. The European Space Research Organization, the National Oceanic and Atmospheric Administration of the United States and the Japan Meteorological Agency were founder members. In 2002, research and development space agencies contributing to the space-based component of the global observing systems became members of the Coordination Group for Meteorological Satellites. CEOS was created in 1984 as a result of recommendations from the Economic Summit of the Group of Seven major industrialized nations. It serves as the focal point for international coordination of space-related, Earth observation activities among space agencies. CEOS encourages complementarity and compatibility among experimental and operational space-borne Earth observing systems through coordination in mission planning, promotion of full and non-discriminatory data access, setting of data product standards and development of compatible data products, services and applications.

∩. *Indication of impediments to implementation:*

(impediments not indicated)

∪. *Benefits to be derived from the implementation:*

The extension of reliable weather and climate forecasting and assessments of the causes and course of longer-term Earth system change were two major accomplishments of WMO and its partner organizations that have a demonstrable value to humanity. However, they also opened a door towards a greater range of possibilities in the future. Annual losses due to natural disasters, most of which were weather-related, exceed on average 50,000 lives and tens of billions of dollars. Some research activities indicate that longer-term climate change would have an impact on the distribution, frequency and intensity of severe weather events. Annual decisions on food and fibre production, multi-year investments in infrastructure development, and management of fresh water resources, to name just a few contemporary socio-economic issues, could benefit significantly from reliable, extended services and products, such as:

(a) A 30-minute warning of very destructive weather events: for example, tornado prediction beyond 10 minutes is notoriously difficult but necessary in susceptible areas;

(b) A 5-day hurricane track prediction to +/-30 km: to reduce the number of false warnings resulting from the present landfall location uncertainty of 400 km at 3 days;

(c) A 10-14 day weather forecast: new measurements, especially tropospheric winds, and substantial advances in modelling capability can push short- and medium-term weather prediction to the limits;

(d) A 12-month regional rain rate: recent efforts in global water cycle modelling indicate the potential to determine regionally specific water cycle projections from global-scale water cycle observations;

(e) A 15-20 month El Niño prediction: "hindcasting" of the two most recent El Niño events indicates that this is possible with an adequate system of space-based and in situ observing capability paired with focused modelling efforts;

(f) A 10-year climate prediction: decade-scale climate prediction is theoretically possible with the extension of the research systems now being deployed to future operational systems.

Λ. *Progress made by the Action Team:*

Since its formation, the Action Team has held several workshops and meetings, including those held during sessions of the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee. The review by the Action Team is complete and the implementation of the recommendations listed above will further enhance weather and climate forecasting through expanded international cooperation in the field of meteorological satellite applications.

^a To be contacted through the Office for Outer Space Affairs of the United Nations Secretariat.

Annex IV

Input from the Action Team on Public Health

<i>Action team number: 6</i>	<i>Chairperson: J. Hamilton (Canada)</i> <i>Secretariat: (to be determined)</i>
1. <i>Membership:</i>	
(a) <i>Countries:</i> Argentina, Australia, Azerbaijan, Bulgaria, Canada, China, Cuba, Czech Republic, Ecuador, Iran (Islamic Republic of), Iraq, Italy, Kazakhstan, Lebanon, Nigeria, Pakistan, Philippines, Portugal, Saudi Arabia, Slovakia, Syrian Arab Republic, Turkey and United States of America;	
(b) <i>Organizations:</i> Economic and Social Commission for Asia and the Pacific, World Health Organization, ^a Space Generation Advisory Council, Manila Observatory and Philippine Astronomical Society.	
2. <i>Brief mission statement:</i>	
To improve public health services by expanding and coordinating space-based services for telemedicine.	
3. <i>Findings:</i>	
(a) There is a legitimate need for space-based services for telemedicine, whether in countries that are members of the Group of Eight or in less developed countries;	
(b) In addition to telemedicine, space-based technologies have other applications to improve public health, for example:	
(i) To identify and monitor situations conducive to emergence of specific diseases;	
(ii) To conduct surveillance at the national level to identify and monitor spread of infectious diseases;	
(iii) To maintain data on best medical practices and disseminate that information on a global basis;	
(iv) To use space-based technologies for continuing education for the general public and for medical professionals;	
(c) The uses of space-based technologies listed above are specifically applicable to disaster monitoring and mitigation in addition to improving general public health.	
4. <i>Recommendations for further action:</i>	
(a) Establish a secretariat;	
(b) Identify resources for fulfilling the mission as stated above and for delivering the products in accordance with the work plan of the Action Team, i.e. organization of a United Nations conference for telemedicine specialists, development of an international disease management network and preparation of a report on the status and potential of telemedicine worldwide.	

<p>◦. <i>Implementation already initiated:</i></p> <p>A preliminary discussion has taken place with the Space Generation Advisory Council regarding its possible provision of secretariat assistance.</p> <p>Bulgaria has suggested the possibility of holding a telemedicine conference in conjunction with a telemedicine and telehome care trade fair planned in Luxembourg in April 2004.</p>
<p>∩. <i>Indication of impediments to implementation:</i></p> <p>Inability to identify adequate resources; lack of funding is the principal impediment.</p>
<p>∪. <i>Benefits to be derived from the implementation:</i></p> <p>(a) Overall improvement of the well-being of people worldwide;</p> <p>(b) Better disease monitoring and management at both national and global levels;</p> <p>(c) Improved educational opportunities for the general public and for medical professionals;</p> <p>(d) Assistance in natural or man-made disaster monitoring and mitigation.</p>
<p>∧. <i>Progress made by the Action Team:</i></p> <p><i>(information not provided)</i></p>

^a Only to receive information.

Annex V

Input from the Action Team on Disaster Management

<i>Action team number: 7</i>	<i>Chairpersons:</i> Li Chuanrong (China), J. Breton (France) and S. Parashar (Canada)
<i>Secretariat:</i> Canada, China and France	
<p>1. <i>Membership</i></p> <p>(a) <i>Countries:</i> Argentina, Australia, Azerbaijan, Belarus, Bolivia, Canada, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, Finland, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Kazakhstan, Lebanon, Mexico, Morocco, Nigeria, Pakistan, Peru, Philippines, Portugal, Russian Federation, Saudi Arabia, Senegal, Syrian Arab Republic, Thailand, Turkey, United Kingdom of Great Britain and Northern Ireland and United States of America;</p> <p>(b) <i>Organizations:</i> Office of the United Nations High Commissioner for Refugees, Office for the Coordination of Humanitarian Affairs of the United Nations Secretariat, secretariat of the International Strategy for Disaster Reduction, Economic and Social Commission for Asia and the Pacific, United Nations Environment Programme, United Nations Office for Project Services, Food and Agriculture Organization of the United Nations, United Nations Educational, Scientific and Cultural Organization, World Health Organization,^a European Space Agency, European Association for the International Space Year, Space Generation Advisory Council, Manila Observatory and Philippine Astronomical Society.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>The mission of the Action Team is to examine the implementation, especially through international cooperation, of an integrated global system to manage natural disaster mitigation, relief and prevention efforts through Earth observation, communication and other space-related services, making maximum use of existing capabilities and filling gaps in worldwide coverage.</p>	
<p>3. <i>Findings:</i></p> <p>(a) Space systems are already useful tools for the authorities of countries threatened or hampered by disasters. Space systems will become increasingly important as new generations of satellites come into operation. However, in practice, the utilization of space systems today is far from frequent, mainly because of the cost of space-derived information, in particular at the disaster prevention phase, and the perceived complexity and lengthy process of tasking space systems during crisis;</p> <p>(b) The needs of users vary significantly depending on the type of disaster. One single system may not meet all requirements. The real user needs are not those expressed by the space community but those expressed by local authorities involved in disaster prevention and civil protection authorities, who do not necessarily use the same language as the space operators and whose needs are not easily understood by space operators;</p> <p>(c) A variety of local and national situations exist with regard to the capacity to make optimal use of valuable space data and communications for various disaster situations. It should be kept in mind that responsibility for civil protection and disaster management lies with the sovereign States. An international integrated global system itself will not manage disasters; it will only provide services to national authorities.</p>	

4. <i>Recommendations for further action:</i>
(a) Space operators should set up a mechanism to organize coordinated rapid response by space systems to disasters;
(b) The international community should establish an international mechanism to capitalize upon and disseminate expertise on space and disasters, including lessons learned and results of research;
(c) International training programmes should be organized for experts and civil protection field officers;
(d) An international entity should be created to deal with space and natural disasters.
◦. <i>Implementation already initiated:</i>
The Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also known as the International Charter on Space and Major Disasters), initiated after UNISPACE III and now in full operation, with major partners such as the Indian Space Research Organisation, the European Space Agency, the National Oceanic and Atmospheric Administration of the United States, the Centre national d'études spatiales of France and the Canadian Space Agency, can be considered a first step in the implementation of the recommendations.
∩. <i>Indication of impediments to implementation:</i> (<i>impediments not indicated</i>)
∪. <i>Benefits to be derived from the implementation:</i>
(a) Easier access to space-derived information in all phases of disasters for all nations;
(b) Establishment of an international entity dealing with space and natural disasters;
(c) In the long term, significant reduction of the toll paid by each nation to natural disasters: by adopting enhanced policies in the disaster prevention phase for urban planning and land use, based on more accurate and credible risk prediction; and by providing more accurate and credible early warning, such as in the case of floods, and immediate and efficient support to relief operations.
∧. <i>Progress made by the Action Team:</i>
The Action Team conducted surveys among Member States on the user needs and national capacity in using space systems for disaster management. On the basis of the results of the surveys and input provided by its members, the Action Team compiled reports on those subjects.
The Action Team established six working groups on various disaster types (earthquakes, floods, forest fires, droughts, ice hazards, and oil spills and technological disasters) and four task forces on cross-cutting issues (technical and operational, organizational, capacity-building, and funding and financing aspects of disaster management). Through those subsidiary bodies, the Action Team is currently conducting a gap analysis to examine the impediments and obstacles in using space-based services and systems for disaster management and to identify possible solutions.

^a Only to receive information.

Annex VI

Input from the Action Team on Global Navigation Satellite Systems

<p><i>Action team number:</i> 10</p>	<p><i>Chairpersons:</i> K. Hodgkins (United States of America) and M. Caparole (Italy)</p> <p><i>Secretariat:</i> India, Malaysia (for compilation of the report) and International Telecommunication Union (for the web board management)</p>
<p>1. <i>Membership</i></p> <p>(a) <i>Countries:</i> Australia, Austria, Belarus, Brazil, Bulgaria, Canada, Chile, China, Colombia, Czech Republic, France, Germany, Hungary, India, Iran (Islamic Republic of), Iraq, Italy, Japan, Lebanon, Malaysia, Mongolia, Morocco, Pakistan, Philippines, Poland, Portugal, Republic of Korea, Russian Federation, Saudi Arabia, Syrian Arab Republic, Turkey and United States of America;</p> <p>(b) <i>Organizations:</i> Economic and Social Commission for Asia and the Pacific, International Telecommunication Union, European Space Agency, European Commission, European Organisation for the Safety of Air Navigation (Eurocontrol), Civil GPS Service Interface Committee, European Association for the International Space Year, American Institute of Aeronautics and Astronautics, International Association of Institutes of Navigation, International Bureau of Weight and Measures, International Federation of Surveyors and International GPS Service.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>(a) Survey current efforts to achieve a seamless satellite-based radio navigation and positioning system;</p> <p>(b) Assess current models of international cooperation and identify those with potential applicability to evolving global navigation satellite systems (GNSS) and services;</p> <p>(c) Propose specific recommendations for entities of the United Nations, its Member States and other international organizations on actions to promote GNSS user interests, increase the level of awareness and improve the quality and facilitate the utilization of GNSS services, in particular in developing countries.</p>	
<p>3. <i>Findings:</i></p> <p>(a) GNSS and their augmentations are generally recognized as being useful for a wide range of civil and commercial applications. System providers are working to increase awareness among policy makers of the benefits of this technology, but the task is beyond the resources of any individual operator. A coordination mechanism involving operators of GNSS and their augmentations, as well as appropriate international organizations, could easily be established for this purpose;</p>	

(b) It appears that the general public and governmental and non-governmental experts understand the basic utility of navigation, positioning and timing services offered by GNSS. While current and future GNSS operators are in a competitive mode, it is fully expected that collaboration will increase in order to serve the user community better. Outreach efforts must move beyond simple awareness among the general public and experts to provide assistance in the integration of GNSS into the basic infrastructure (government, commercial, scientific) of countries, in particular in the developing world. This requires the convening of regular regional workshops (similar to those recently organized by the Office for Outer Space Affairs of the United Nations Secretariat) and the development of “road maps”, as well as the preparation of technical reports for the introduction of GNSS services in developing countries;

(c) GNSS signal security and integrity are one of the top priorities for the global user community, regardless of application. There is an urgent need for assistance to national and regional authorities, in particular in developing countries, to establish mechanisms for identifying and eliminating sources of interference that could degrade signals from GNSS and their augmentations.

4. *Recommendations for further action:*

(a) GNSS and augmentation providers should establish a GNSS coordination board that would include appropriate international organizations for the purposes of: (i) optimizing compatibility and interoperability; (ii) identifying mechanisms for implementing measures to protect the reliability and integrity of signals at the national, regional and global levels; (iii) coordinating modernization activities to meet user needs; (iv) developing “road maps” and preparing technical reports for the introduction of GNSS services; (v) organizing regional workshops; and (vi) providing training opportunities in GNSS, in particular in developing countries. It would be necessary to have a secretariat for the GNSS coordination board. One possibility would be to use the model of the Committee on Earth Observations Satellites, with secretariat responsibility rotating among the members on an annual basis. The GNSS coordination board must complement the International Civil Aviation Organization (ICAO) activities in promoting GNSS applications in civil aviation;

(b) (i) The Office for Outer Space Affairs, through the United Nations Programme on Space Applications, should continue to hold regional workshops for promoting the use of GNSS and their augmentations in developing countries;

(ii) The regional centres for space science and technology education affiliated with the United Nations should consider including GNSS programmes in their training activities;

(iii) In cooperation with GNSS and augmentation providers, or the proposed GNSS coordination board, the Office should maintain a web site to be developed to include information on systems descriptions, recent application developments, training opportunities, sources for assistance in integrating GNSS into national infrastructure as well as in protecting signal reliability and integrity at the national and regional levels. The GNSS coordination board could develop a concept and structure for the web site, as well as identify working methods to collect and update the information on a regular basis. Once this has been done, the web site could become part of the web site of the Office for Outer Space Affairs, to be maintained by the Office in cooperation with the GNSS coordination board.

◦. *Implementation already initiated:*

The implementation of recommendation 4 (b) (i) above already started with the series of four regional workshops (Austria, Chile, Malaysia and Zambia) and one international expert meeting on GNSS for sustainable development held in the period 2001-2002 with co-sponsorship of the United Nations, the United States and the European Space Agency. An additional meeting to review progress on the implementation of recommendations made by the United Nations/United States of America International Meeting of Experts on the Use and Applications of Global Navigation Satellite Systems, held in Vienna in November 2002, is being planned for December 2003.

∩. *Indication of impediments to implementation:*

As for the recommendations that require actions by the Office for Outer Space Affairs, one of the major impediments would be limited resources, including staff resources, to carry out additional work, in particular within the framework of the United Nations Programme on Space Applications. The same would hold true for those recommendations requiring additional resources from system providers. Whereas the civil aviation applications of GNSS are well coordinated through ICAO, the proposed GNSS coordination board would face an uphill task in promoting the use of GNSS for applications in fields other than civil aviation. This is primarily because some of the non-civil aviation applications for providing accurate position location and navigation services are dependent on telecommunications and other infrastructure available in the country. As yet, there is no international body to oversee and coordinate the specifications of the equipment and services in these areas.

∪. *Benefits to be derived from the implementation:*

Benefits from the implementation of the recommendation in section 4 (a) above would include increased awareness on the part of policy makers of the benefits of GNSS and subsequent increase in the political support that would result in government funding for the integration of GNSS into the national infrastructure. Benefits from the implementation of recommendations listed in section 4 (b) above would include the increased training opportunities in GNSS for developing countries, enhanced access by developing countries to information on GNSS and augmentations, as well as their applications and available services, and enhanced technical advisory services for developing countries to use GNSS in their development activities.

∧. *Progress made by the Action Team:*

The Action Team has held six meetings. It has: (a) compiled comprehensive information on GNSS and augmentations, including policies, system descriptions and associated activities carried out through international cooperation; (b) conducted a global survey on the existing training opportunities in the field of GNSS; and (c) identified GNSS applications unique to regions.

Annex VII

Input from the Action Team on Sustainable Development

<i>Action team number:</i> 11	<i>Chairperson:</i> A. A. Abiodun (Nigeria) <i>Secretariat:</i> The Presidency, Abuja, Nigeria
<p>1. <i>Membership:</i></p> <p>(a) <i>Countries:</i> Azerbaijan, Belarus, Bolivia, Chile, China, Czech Republic, Egypt, India, Iran (Islamic Republic of), Iraq, Lebanon, Monaco, Mongolia, Morocco, Nigeria, Pakistan, Peru, Philippines, Portugal, Russian Federation, Saudi Arabia, South Africa, Syrian Arab Republic, Turkey, United Kingdom of Great Britain and Northern Ireland and United States of America;</p> <p>(b) <i>Organizations:</i> Economic and Social Commission for Asia and the Pacific, United Nations Educational, Scientific and Cultural Organization,^a International Society for Photogrammetry and Remote Sensing, European Association for the International Space Year, National Space Society, Space Generation Advisory Council, Manila Observatory and Philippine Astronomical Society.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>(a) Examine the features that single out space technology as an indispensable component of any viable sustainable development agenda and specifically address how space technology can enhance human understanding and management of fundamental life-support systems—air, land and water—including the assessment and management, for example, of agriculture and food security, safety, environment, education, transportation, health care and disaster mitigation;</p> <p>(b) Determine the critical steps that each country should take in order to achieve the space capability necessary to support its sustainable development goals.</p>	
<p>3. <i>Findings:</i></p> <p>(a) The collection and analysis of space-acquired data, including the use of geographical information, is a starting point on the path towards sustainable development. The inability of many societies to undertake development efforts that are sustainable is rooted in poor-quality data collection, organization and management;</p> <p>(b) Space technology has brought into sharper focus the interdependence of the world on sustainable development issues. This is exemplified by the Principles Relating to Remote Sensing of the Earth from Outer Space (General Assembly resolution 41/65, annex), the volcanic eruption of Mount Pinatubo in 1991, and the entering into force, on 1 November 2000, of the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also known as the International Charter on Space and Major Disasters);</p> <p>(c) There is growing investment and participation by Member States, in particular by developing countries, in space activities as a result of their recognition of the role of space technology as a viable sustainable development tool.</p>	

4. *Recommendations for further action:*

(a) Each country should urgently develop the necessary policy, commensurate with its capability, for space-related sustainable development programmes and should periodically sensitize its decision makers to the value and contribution of space science to human development through the organization of appropriate national and regional conferences. Each country should urgently develop its indigenous personnel through participation in regional centres of excellence in space science and technology and establish networks among national and regional institutions in order to facilitate and enhance collaborative research opportunities;

(b) In order to provide active coordination in environmental activities, international institutions, such as the United Nations Environment Programme and the Food and Agriculture Organization of the United Nations, should provide Member States with intellectual leadership that is built on a strong scientific and technical foundation. In order to provide a reliable basis for decision-making, existing conventions relating to sustainable development should forge stronger links with other science-based institutions worldwide, such as the International Society for Photogrammetry and Remote Sensing, the Committee on Space Research and the International Astronautical Federation (IAF), and their scientific advisory bodies should be expanded to include experts in the fields of space science and technology;

(c) At the level of political leadership, African and West Asian countries should urgently emulate the organization of programmes at the regional level similar to the activities of the Space Conference of the Americas and the Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific. The General Assembly should find a way of regularly evaluating the compliance of Member States with globally agreed sustainable goals.

5. *Implementation already initiated:*

(a) Establishment of regional centres for space science and technology education sponsored by the United Nations;

(b) The ongoing organization of sustainable development activities by the Office for Outer Space Affairs of the United Nations Secretariat, the European Space Agency (ESA), the Committee on Earth Observation Satellites (CEOS) and IAF, in cooperation with Member States;

(c) The entry into force of the International Charter on Space and Major Disasters on 1 November 2000.

6. *Indication of impediments to implementation:*

(a) Space activities, in particular those which can support sustainable development programmes, are not being identified as a national priority;

(b) Failure to provide the necessary political support at the national level and to make the necessary national financial and other commitments for space-based sustainable development programmes.

V. *Benefits to be derived from the implementation:*

(a) Availability of skilled personnel who can contribute to the generation and use of scientific and technical knowledge and the making of adjustments in existing institutional arrangements;

(b) Establishment of regional and international agreements focusing on areas of cooperation in space activities that could support sustainable development efforts, including the establishment of appropriate networks;

(c) Availability of space-related advisory panels that can support the various existing international conventions relevant to sustainable development;

(d) Establishment of agreements between each country and funding entities, such as the United Nations Development Programme, the World Bank and the International Monetary Fund, focusing on providing support for those aspects of the country's development agenda which emphasize sustainable development.

Λ. *Progress made by the Action Team:*

(a) Through the development of the Action Team's report and participation in international meetings and conferences, members of the Action Team have contributed to the ongoing global awareness of the role of space science and technology in sustainable development;

(b) The Action Team is cooperating with international organizations, such as the Office for Outer Space Affairs, the United Nations Educational, Scientific and Cultural Organization, CEOS and ESA, in their activities on sustainable development for the benefit of Member States;

(c) The Action Team is sensitizing Member States to the need to bridge the digital divide within and across regional blocks and to the role and importance of the International Charter on Space and Major Disasters.

^a To be contacted through the Office for Outer Space Affairs of the United Nations Secretariat.

Annex VIII

Input from the Action Team on Near-Earth Objects

<p><i>Action team number:</i> 14</p>	<p><i>Chairperson:</i> R. Tremayne-Smith (United Kingdom of Great Britain and Northern Ireland)</p> <p><i>Secretariat:</i> United Kingdom with assistance from the United States of America, the Committee on Space Research, the International Astronomical Union and the Spaceguard Foundation</p>
<p>1. <i>Membership:</i></p> <p>(a) <i>Countries:</i> Australia, Brazil, China, Czech Republic, Finland, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Lebanon, Pakistan, Poland, Russian Federation, Saudi Arabia, Syrian Arab Republic, United Kingdom of Great Britain and Northern Ireland and United States of America;</p> <p>(b) <i>Organizations:</i> European Space Agency, Committee on Space Research, International Astronomical Union, National Space Society, Space Generation Advisory Council, The Spaceguard Foundation and European Space Science Committee—European Science Foundation.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>(a) Review the content, structure and organization of ongoing efforts in the field of near-Earth objects (NEOs);</p> <p>(b) Identify any gaps in the ongoing work where additional coordination is required and/or where other countries or organizations could make contributions;</p> <p>(c) Propose steps for the improvement of international coordination in collaboration with specialized bodies.</p>	
<p>3. <i>Findings:</i></p> <p>(a) The threat of NEOs is believed to be comparable to more familiar hazards and the risk is global;</p> <p>(b) A range of scientific areas require support and coordination in order to improve the evaluation and assessment of risk;</p> <p>(c) Planned, integrated collaboration offers the most cost-effective response for scientific efforts (search, study and planning for mitigation), as well as emergency or civil contingency action.</p>	
<p>4. <i>Recommendations for further action:</i></p> <p>(a) Encourage increased international collaboration to address the issues and improve understanding of the nature of the threat; write improved guidelines for risk management organizations by 2005;</p>	

(b) The International Council for Science (ICSU) should consider, and encourage its member organizations to consider, the recommendations contained in various reports (see the workplan and other reference documents, such as the report of the task force on potentially hazardous NEOs commissioned by the Government of the United Kingdom and the findings and conclusions of the Organisation for Economic Cooperation and Development (OECD) Global Science Forum Workshop on Near Earth Objects: Risks, Policies and Actions, held in Frascati, Italy, in January 2003), and help plan the necessary multidisciplinary activity;

(c) Relevant activity needs to be better coordinated at the national, regional and international levels using and enhancing existing mechanisms wherever possible. Such activity could be coordinated by the Committee on the Peaceful Uses of Outer Space, possibly by including an agenda item on the subject in the Scientific and Technical Subcommittee at its forty-second and forty-third sessions in 2005 and 2006.

◦. *Implementation already initiated:*

ICSU to consider the issues arising from the OECD Global Science Forum Workshop held in Frascati, Italy. Missions to NEOs are being increasingly coordinated internationally.

∩. *Indication of impediments to implementation:*

Overlap and competition exist in search and discovery activity and there is no automatic follow-up of observations in many cases.

An overall solution requires the involvement of government as well as science. Scientific disciplines need to work together more and also to address the needs of civil emergency staff.

∪. *Benefits to be derived from the implementation:*

Greater coordination and cooperation will lead to improved search capability and efficiency.

∧. *Progress made by the Action Team:*

Progress was made in developing the understanding of the Action Team and the Scientific and Technical Subcommittee on NEO issues.

Annex IX

Input from the Action Team on Capacity-Building

<i>Action team number: 17</i>	<i>Chairperson: T. Okamoto (Japan)</i> <i>Secretariat: (to be determined)</i>
<p>1. <i>Membership:</i></p> <p>(a) <i>Countries:</i> Argentina, Azerbaijan, Bolivia, Brazil, Canada, Colombia, Ecuador, Egypt, France, Hungary, India, Iran (Islamic Republic of), Japan, Kazakhstan, Lebanon, Morocco, Nigeria, Pakistan, Peru, Philippines, Portugal, Saudi Arabia, Syrian Arab Republic and United States of America;</p> <p>(b) <i>Organizations:</i> Economic and Social Commission for Asia and the Pacific, United Nations Educational, Scientific and Cultural Organization, European Space Agency, Committee on Space Research, International Astronomical Union, Space Generation Advisory Council and Manila Observatory.</p>	
<p>2. <i>Brief mission statement: overall goal and focus of work of the Action Team:</i></p> <p>To enhance capacity-building activities through: (a) sharing the information on the existing infrastructure such as fellowship programmes; and (b) enhancing educational and training opportunities at every level, from children to experts and teachers, especially in developing countries.</p>	
<p>3. <i>Findings:</i></p> <p>(a) In order to enhance capacity-building as a whole, it is necessary to reduce the gap between space-faring countries and developing countries. Emphasis should be placed on enhancing educational and training opportunities in developing countries by improving access to educational and training information, such as on best-practice cases of space-faring countries. In this regard, more effective utilization of existing training opportunities offered within the United Nations system, such as those by the regional centres for space science and technology education affiliated to the United Nations, should be promoted and an interregional network should be established for information exchange;</p> <p>(b) All levels of educational and training opportunities, from children to postdoctoral fellows, teachers, and experts, should be promoted. For this purpose, educational and training information for all levels should be disseminated and shared, bearing in mind the emphasis placed in developing countries on capacity-building at the university level because of the importance of effective capacity-building, especially in space applications for those countries;</p> <p>(c) Capacity-building cannot be achieved in a short period of time. It is important to develop long-term strategies as well as short-term ones to ensure the steady enhancement of capacity-building.</p>	
<p>4. <i>Recommendations for further action:</i></p> <p>To be discussed among member countries at the seventh coordination meeting of the Action Team, to be held on 13 June 2003.</p>	

◦. *Implementation already initiated:*

(a) Various types of capacity-building activities are being carried out, such as the Global Learning and Observations to Benefit the Environment (GLOBE) Programme, Eduspace of the European Space Agency, the Space Education Project of the United Nations Educational, Scientific and Cultural Organization, Space Generation Advisory Council activities, Ad Hoc Working Group on Education and Training of the Committee on Earth Observation Satellites and the Space Technology, Applications and Research (STAR) programme of the Asian Institute of Technology;

(b) The Forum for Capacity-Building was organized by the Action Team in Houston, Texas, United States, on 15 October 2002 (with 52 participants from 17 countries and organizations). The results of the Forum are available on the web site of the Office for Outer Space Affairs of the United Nations Secretariat (www.oosa.unvienna.org/unisp-3/followup/action_team_17/houston2002/index.html).

Information on the activities of the Action Team, including coordination meetings, is available on the web site of the Action Team (www.bonnooffice2002.org/UN).

∩. *Indication of impediments to implementation:*

(a) There is a large gap in capacity-building between space-faring countries and developing countries;

(b) The language problem is one of the barriers that must be taken into account, especially in space education for very young students, as most of the information is available in English only;

(c) The digital divide between space-faring countries and developing countries is also an impediment to the dissemination of educational or training information.

∪. *Benefits to be derived from the implementation:*

Capacity-building activities would be facilitated especially in developing countries, and capacity-building would be enhanced at all levels and in all regions, contributing to the enhancement of peaceful uses of outer space.

∧. *Progress made by the Action Team:*

The Action Team has already held six coordination meetings. On the basis of input provided in response to the questionnaire circulated by the Action Team and other input from member countries, member organizations and other interested cooperating countries, including China and Cuba, the Action Team is preparing its final report, which will include an overall picture of capacity-building and related information.

Annex X

Input from the Action Team on Increasing Awareness

<i>Action team number:</i> 18	<i>Chairpersons:</i> L. Sperry (United States of America) and J. Wimmer (Austria)
<i>Secretariat:</i> (to be determined)	
<p>1. <i>Membership:</i></p> <p>(a) <i>Countries:</i> Australia, Austria, Bolivia, Brazil, Czech Republic, Egypt, France, Iran (Islamic Republic of), Iraq, Italy, Kazakhstan, Lebanon, Malaysia, Morocco, Nigeria, Pakistan, Peru, Philippines, Portugal, Saudi Arabia, Syrian Arab Republic and United States of America;</p> <p>(b) <i>Organizations:</i> Economic and Social Commission for Asia and the Pacific, United Nations Educational, Scientific and Cultural Organization,^a European Space Agency, Committee on Space Research, International Law Association, International Society for Photogrammetry and Remote Sensing, International Space University, European Association for the International Space Year, National Space Society, Space Generation Advisory Council, Spaceweek International Association, Austrian Space Agency, Manila Observatory and Philippine Astronomical Society.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>(a) Evaluate ongoing efforts to increase awareness among decision makers and the general public of the value of space activities and the role space activities can play;</p> <p>(b) Prepare a listing of illustrative examples of successful outreach activities;</p> <p>(c) Identify potential outreach activities and potential target audiences, in particular with regard to the work of the Committee on the Peaceful Uses of Outer Space and the Office for Outer Space Affairs of the United Nations Secretariat;</p> <p>(d) Provide recommendations on future outreach activities and potential target audiences.</p>	
<p>3. <i>Findings:</i></p> <p>(a) Recommendation 18 of UNISPACE III (“Increase awareness among decision makers and the general public of the importance of space activities”) is being implemented at various levels (the intergovernmental, governmental and non-governmental levels), partly within the framework of specifically designed activities;</p> <p>(b) As it is not possible to compile a complete list of relevant activities worldwide, the Action Team is focusing on examining and selecting illustrative examples;</p> <p>(c) Considerable differences remain as to the emphasis placed by the various relevant actors on increasing awareness.</p>	
<p>4. <i>Recommendations for further action:</i></p> <p>(a) Assessment by the Committee on the Peaceful Uses of Outer Space in the course of its work on reviewing the progress made in the implementation of the recommendations of UNISPACE III in 2003 and 2004;</p>	

<p>(b) Observations and recommendations by the Committee and the General Assembly in 2004 regarding the state of implementation of the recommendation and types of possible future action for all relevant actors;</p>
<p>(c) Practical suggestions for future activities of the Committee and the Office for Outer Space Affairs in the framework of the United Nations.</p>
<p>◦. <i>Implementation already initiated:</i> (see “Findings”, section 3 (a), above)</p>
<p>∩. <i>Indication of impediments to implementation:</i> The vastness of the subject makes a comprehensive evaluation and assessment very difficult.</p>
<p>∪. <i>Benefits to be derived from the implementation:</i> An increase of awareness would lead to a better understanding on how space activities can, in particular, contribute in a cost-effective manner to sustainable development, environmental protection and human security.</p>
<p>∧. <i>Progress made by the Action Team:</i> The Internet-based process of gathering information from Governments and non-governmental entities through specially designed questionnaires is well on track; an interim report will be ready for the Committee at its forty-sixth session, in 2003.</p>

^a To be contacted through the Office for Outer Space Affairs of the United Nations Secretariat.

Annex XI

Input from the Action Team on Innovative Sources of Financing

<i>Action team number: 32</i>	<i>Chairperson: M. Laffaiteur (France)</i> <i>Secretariat: (not identified)</i>
<p>1. <i>Membership:</i></p> <p>(a) <i>Countries:</i> Algeria, Australia, Colombia, Czech Republic, France, Germany, Iran (Islamic Republic of), Kazakhstan, Mexico, Morocco, Nigeria, Pakistan, Philippines, South Africa and Syrian Arab Republic;</p> <p>(b) <i>Organizations:</i> Economic and Social Commission for Asia and the Pacific, European Space Agency, National Space Society, Space Generation Advisory Council, Manila Observatory and Philippine Astronomical Society.</p>	
<p>2. <i>Brief mission statement:</i></p> <p>For many years, the use of space applications, mainly by developing countries, encountered various problems, including the lack of qualified personnel and equipment and especially the absence of financial resources for the implementation of the process. The large scope of the utilization of space technologies, mainly in Earth observation, has been demonstrated during the last 20 years. However, these promising technologies have not supported development as much as they should have.</p> <p>In this regard, it was decided at UNISPACE III to conduct a study to adopt measures aimed at identifying new and innovative sources of financing at the international level, including in the private sector, in order to support the implementation of the recommendations of UNISPACE III in developing countries. The workplan of the Action Team for 2002 and 2003 was adopted by the Scientific and Technical Subcommittee at its thirty-ninth session, in 2002.</p>	
<p>3. <i>Findings:</i></p> <p>The Action Team has identified three main prerequisite elements for any development project that involves the use of space applications:</p>	
<p>(a) <i>Funding:</i> Lack of funding is often the major obstacle in introducing space technology into operational development programmes or projects. That obstacle is generally linked to: (i) limited awareness of the possibilities and requirements for securing adequate financial resources to support priority programmes; (ii) difficulty in proving the cost-benefit advantage of space applications techniques to decision makers and potential users. Decision makers, responsible for these programmes or projects, must ensure to provide adequate information to the development banks or aid agencies.</p>	
<p>(b) <i>Political commitment:</i> Government support is a must for projects or programmes of national scope and for projects for which international funding will be sought. The institutions that would participate in a pilot or demonstrative project using space applications should make a firm commitment, in cash and/or in kind to the implementation of the project, as this will add credibility to the project proposal. The institutions that have been identified as users in the project proposal should clearly indicate their commitment to using the space application upon demonstration of its cost-effectiveness;</p>	

<p>(c) <i>Education and training:</i> There is a pressing need to provide developing countries with further education and training opportunities in all areas of space science and technology. Trained personnel is essential if space technologies are to be integrated into operational programmes.</p>
<p>4. <i>Recommendations for further action:</i></p>
<p>(a) To study carefully, in close liaison with the space industry, how it can contribute to the existing Trust Fund for the United Nations Programme on Space Applications. This should be done by the Action Team in order to present proposals to the Scientific and Technical Subcommittee at its forty-first session, in 2004;</p>
<p>(b) The United Nations should urgently request all Member States to contribute to the Trust Fund for the United Nations Programme on Space Applications. It would be the matter of a strict application of the corresponding provisions of the resolution adopted at UNISPACE III, which stipulates that all States should be invited to support financially or in kind in an annual letter from the Secretary-General that will, inter alia, identify priority project proposals for enhancing and assisting technical cooperation activities, in particular for human resource development;^a</p>
<p>(c) In order to mobilize space industry on the partnership issue, the Scientific and Technical Subcommittee should prepare a “white paper” that should be submitted to space industry. The document should contain a presentation of the main recommendations of UNISPACE III and the needs for the coming years;</p>
<p>(d) Experts in development banks or aid agencies are not always aware of the possibilities of space application techniques. It could be useful to include in the United Nations Programme on Space Applications the organization of short workshops for such experts in order to present the possibilities offered by space applications to support development, utilizing the results of pilot projects or techniques already used in application programmes.</p>
<p>◦. <i>Implementation already initiated:</i> (information to be provided)</p>
<p>⋄. <i>Indication of impediments to implementation:</i></p> <p>(a) The difficulty to convince development banks and aid agencies to support development programmes using space applications;</p> <p>(b) Well-trained people are necessary, but they need good prospects. This requires a long-term political commitment.</p>
<p>∇. <i>Benefits to be derived from the implementation:</i></p> <p>Increased availability of funding sources for the implementation of the recommendations of UNISPACE III.</p>
<p>∧. <i>Progress made by the Action Team:</i></p> <p>The report prepared by the Action Team (A/AC.105/L.246) should lead to greater awareness of the difficulties faced by developing countries in the utilization of space applications. This report should help decision makers, including those in development banks and aid agencies, in the use of space applications for the implementation of development projects. As the funding problem is inherent in a large number of recommendations of UNISPACE III, the proposals contained in the report should certainly be useful for enhancing the implementation of the recommendations.</p>

^a 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, sect. I, para. 1 (f).