

THE PATH TOWARDS UNISPACE-III

by

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Distinguished Leaders of Delegations, Ambassadors, Representatives of Member Nations and Friends.

Let me, at the outset, congratulate COPUOS on the organization, conduct, achievements and shortfalls of the historic UNISPACE-III Conference, on “10th Anniversary of UNISPACE-III”, at the fifty-second session of the Committee. I am indeed grateful to COPUOS for inviting me to participate in the Panel Discussion and Speak on “The Path Towards UNISPACE-III”. As Chairman of COPUOS during 1997-2000 and President of UNISPACE-III, I was indeed very fortunate to have been an integral part of UNISPACE-III Conference.

1. Introduction:

The historical launch of Sputnik-1 by USSR in 1957, which heralded the beginning of space age, irrevocably changed human kind’s understanding of our Universe and Earth’s place in the Universe. Since then humankind has sent hundreds of satellites into orbit for instantaneously gathering information on weather and natural disasters, obtaining data for optimal management of our natural resources and monitoring environment. Communication satellites have enabled us to interlink the entire humanity, thus shrinking time and distance and unfolding the rich diversity of the entire cosmos. Space technology due to its vast reach and ability to access even remotest corners of the globe, has provided

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great opportunities for achieving rapid socio-economic development to enable all nations, developing nations in particular, to improve the quality of life of their people. The extraordinary developments in space technology and its applications together with the convergence of computer and communication technologies have initiated the most powerful Information and Communication Technology (ICT) Revolution, which has revolutionised the globe affecting the entire humankind.

2. UNISPACE-I and UNISPACE-II:

Recognising the immense potential of space technology for socio-economic development, the United Nations established the Committee on Peaceful Uses of Outer Space (UN-COPUOS) in 1959 for promoting greater international collaboration among all nations in the development and application of space technology. The UN-COPUOS, organized the first UNISPACE Conference in Vienna in 1968, which succeeded in bringing an awareness of the vast potential of space benefits to all the Member States. Significant successes achieved in the seventies in the application of space technology, particularly in communication, weather monitoring and management of natural resources, clearly established the urgent need to promote greater use of space technology in all Member Nations through international cooperation, paving the way for the organization of UNISPACE-II in Vienna in 1982. Following the recommendations of UNISPACE-II, the United Nations programme on space applications was considerably strengthened and expanded, resulting in increased opportunity for developing countries to participate in educational and training activities in space science and technology and to develop their indigenous capabilities in the use of space technology applications.

One of the major accomplishments following UNISPACE 82 was the establishment of regional centers for space science and technology education, aimed at building human and institutional capacities for exploiting the immense potential of space technology for socio-economic development. International efforts in this regard resulted in the inauguration of Regional Center for Space Science and Technology Education in Asia and Pacific at Dehradun, India in

1995, followed by Regional centers in Morocco for French speaking countries in Africa and in Nigeria for English speaking countries in Africa in 1998 and in Brazil and Mexico in 2003 for the Latin American and Caribbean regions.

Large increase in the number of developing countries involved in space activities since UNISPACE-II, combined with the far reaching changes in the political climate of the world due to the end of the cold war, undoubtedly created a conducive atmosphere for increased international cooperation. Rapid growth in the commercialisation of space activities, which were earlier essentially the domain of Governments, made a qualitative change in the spread of space benefits across the world. New scientific discoveries helped in sharply focussing global attention on the environmental problems facing the world community. Major advances in space based observation of earth's atmosphere, oceans and biosphere led to the initiation of sustainable development. Sustainable development rightly became the watch word for the survival of humanity in the next millennium. Satellite communication resulted in bringing distant parts of the world including the most remote locations together, in a seamless way. Extensive use of space observations for applications related to surveying and mapping earth's resources, agriculture, environmental monitoring, disaster management and telecommunication infrastructure gained great importance.

At the same time the Committee recognized the increasing challenges such as continued population growth, unsustainable development and consumption patterns of the past, increased pressure on Earth's environment, scarcity of natural resources, growing demand to meet the basic needs of people and frequent occurrence of natural disasters having an adverse effect on the condition of the planet. The consequences were large scale degradation of land and coastal areas, increased air and water pollution, deforestation and loss of bio-diversity and further degradation in the living conditions. Many people, particularly living in the developing countries depending on limited amount of land, were caught in a vicious circle of environmental degradation and poverty. Abrupt changes in global climate, combined with poor health care facilities had

severe effect particularly on the health of poor people in the developing countries. Frequent occurrence of natural disasters causing enormous loss to property and life practically annulled all the economic progress made by the developing countries over decades. Globalisation following the Information Communication Revolution, had unfortunately further increased the digital divide between the people in the developed and developing countries, the haves and the have-nots of cyber space.

3. Genesis of Preparation for UNISPACE-III Conference:

To address the serious challenges facing humanity as a whole and develop a comprehensive road map for promoting wide spread application of space technology developments, COPUOS initiated discussion for holding UNISPACE-III, the third United Nations Conference on the Exploration and Peaceful Uses of Outer Space. As the world transitioned from an era of confrontation to an era of cooperation, greater emphasis was placed on the practical application of space science and technology for human development.

- a) Accordingly COPUOS at its 1992 Session mooted the proposal for holding UNISPACE-III in 1995 to consolidate the momentum provided by the activities during the International Space Year (ISY) in 1992 and broaden International Cooperation with increased participation from developing countries. Based on the Committee's recommendation, the General Assembly in its resolution 47/67 of December 14, 1992 recommended that Member States might discuss during the Committee's 1993 Session, the possibility of holding UNISPACE-III.
- b) The emerging opportunities for greater cooperation in space activities led to the adoption by the General Assembly, in 1996, of the Declaration on International Cooperation in the Exploration and Use of Outer Space for the benefit and in the interest of All States, taking into particular account the needs of Developing Countries. The Declaration stressed that States are free to determine all aspects of their participation in international Cooperation in space activities, to be carried out on an equitable and

mutually acceptable basis and recognized commercial space activities as a mode for international cooperation.

- c) The Committee recognized the increasing challenges faced by humanity such as rapid population growth, expansion of industrial activities and increasing demand to meet the basic needs of people, in the context of limited resources, extensive land and coastal degradation, air and water pollution due to uncontrolled anthropogenic activities, loss of forest resources and bio-diversity and significant deterioration in living conditions, particularly in highly populated developing countries. In spite of the initiation of Information and Communication Revolution, the digital divide between the developed and developing countries was steadily increasing. It became clear, that the initiation of sustainable development practices, was the key to halt or even reverse this trend and protect the planet earth from increasing threats of rapid environmental challenges including climate change, deforestation, desertification, land degradation and loss of bio-diversity.
- d) COPUOS, after extensive discussions and considering the volume of work involved in the preparation, including definition of sharply focussed objectives and goals to be achieved, working out financial implications and time required for detailed preparation etc., finally recommended that UNISPACE-III should be convened at the UN office at Vienna in 1999 under “Space Benefits for Humanity in the Twenty-first Century”. The proposal of the Committee was endorsed by the General Assembly in its resolution 52/56 of December 10, 1997.
- e) The primary objectives of the conference were elaborated as:
 - a) To promote effective means of using space solutions to address problems of regional or global significance.

- b) To strengthen the capability of Member States, especially developing nations to use the results of space research for economic and cultural development and
- c) To enhance International Cooperation in space sciences and technology and its applications.

UNISPACE-III was perceived as an unique opportunity for “World’s experts and decision makers to meet and exchange information and ideas to advance human conditions into the next millennium”.

4. Identification of Themes for UNISPACE-III:

Following eight broad themes were identified for UNISPACE-III for harnessing the space potential for socio-economic development:

- (i) Protection of Environment:
 - (a) Extensive use of synoptic, continuous and long-term global observation from space to address environmental issues such as,
 - (i) Influence of the Sun on Earth’s environment; (ii) Global Change and (iii) Impact on environment and human health due to anthropogenic activities including ozone layer depletion and global warming.
 - (b) Maximising the use of space remote sensing for more reliable and timely predictions of weather, climate and natural disasters and provide assistance including information, training and financial support for developing countries to enable them to effectively deal with disaster management.
- (ii) Communication Networking: Facilitating extensive use of satellite communication to enable all countries, developing countries in particular, to benefit from the application of satellite based telecommunication services including communication, video-teleconferencing, multi-media communication infrastructure, global internet, tele-education and telemedicine.

- (iii) Navigation: Promoting extensive use of position / location capability such as those provided by GPS and GLONASS for position location, navigation and search and rescue.
- (iv) Furthering Knowledge and Capacity Building: Capacity building for creating appropriate knowledge and skills in space technology, through education, training and research.
- (v) Enhancing Education and Training Opportunities for Youth:
Providing educational / training opportunities for young scientists / engineers.
- (vi) Information Needs and Global Approach:
Assisting developing countries in strengthening their information infrastructure to enable them greater access to information and fully participate and benefit from ICT revolution.
- (vii) Promoting Spin-Offs and Commercial Benefit from Space Activities:
Promoting spin-off products and services accruing from space technology development, for environmental monitoring, public safety, health services, remote sensing applications, computer and information technology development, etc.
- (viii) Promotion of International Cooperation:
Promoting extensive international cooperation between developing and developed nations, taking advantage of the fading away of cold war tensions. Special bi-lateral, regional and multi-lateral agreements could be initiated for carrying out integrated global observations on disaster management.

5. Preparation for Unispace-III:

- (i) In order to ensure success of UNISPACE-III and in accordance with General Assembly Resolution 1952/56, several regional preparatory conferences were held in Kuala Lumpur in May 1998 for Asia,

Concepcion in October 1998 for Latin America and Caribbean, Rabat in October 1998 for Africa and in Bucharest in January 1999 for Eastern Europe. In addition to promoting regional cooperation in space science and meteorology, these conferences also discussed issues related to UNISPACE-III to formulate their common regional approach and role.

6. Major Recommendations from Regional Preparatory Conferences:

(A) Asia-Pacific:

- (i) Forge close cooperation between Member States for enhancing and fully utilizing their capability to plan and utilize earth observation data for national, regional and global benefits and for carrying out regional as well as global studies.
- (ii) Involve policy and decision makers fully for effective management and financial support, particularly for disaster management and mitigation.
- (iii) Develop mechanisms for effective data exchange and transfer between Member States to enable all states to benefit from space technology applications.
- (iv) Encourage and support Member States to leap frog into advanced telecommunication systems and build a robust satellite based regional communication network by forging good cooperation between Member States on issues of frequency planning and coordination, technical training etc. and also promoting communication industries.

(B) Africa and Middle East:

- (i) Forge enhanced cooperation in capacity building in remote sensing applications towards improvement of resources, infrastructure development.

- (ii) Ensure total coverage of region through economic and social councils by establishing new Earth Observation Ground receiving stations, if necessary.
- (iii) Development of prospective, pro-active and participatory science and technology policies and implementation strategies to derive maximum benefit from Space for enhancing living standard of people.
- (iv) Involvement of private sector participation in all aspects of space industry including related applications.
- (v) Development and support for regional African Satellite Communication to achieve robust communication networking of the region.

(C) Latin America and Caribbean:

- (i) Identify and establish focal points for effective data exchange and dissemination.
- (ii) Produce risk-microzoning maps (micro-seismicity, hydrometeorology, urban and rural protection etc.) through full access to and use of satellite imaging data and geographic information systems.
- (iii) Improve and benefit from satellite communication networking by supporting regional / inter-regional coordination.

(D) Eastern Europe:

- (i) Develop regional systems for environmental monitoring of Black Sea and Caspian Sea for oil slicks, ship traffic, ecology and climate change.
- (ii) Educate decision makers in all aspects of practical applications of remote sensing for national development.
- (iii) Increase awareness and active participation of Member States particularly through exposure to recent developments in

satellite communication, satellite navigation and communication networking.

All regions stressed on enhancement of education / training opportunities for youth, promotion of international cooperation, development of small satellite projects, promotion of space industry and spin-off benefits, involvement of private sector / industries and optimal use of space technology for achieving sustainable development.

7. **Conduct of UNISPACE-III and its Recommendations:**

Distinguished delegates,

UNISPACE-III was convened in Vienna, in accordance with General Assembly resolution 52/56, from 19 to 30 July as a special session of the Committee on the Peaceful Uses of Outer Space, open to all Member States. The Conference was opened on July 19, 1999 in the presence of Mr. Kofi Annan, Secretary General of UN and HE Thomas Klestil, Federal President of Austria. I was unanimously elected as the President of historic UNISPACE-III Conference. Attended by more than 2,500 participants, including delegates from 100 States as well as representatives of intergovernmental and non-governmental organizations, industry and research institutions, UNISPACE-III was an outstanding success. The rest is history.

Distinguished delegates,

The Vienna declaration, outcome of UNISPACE-III Conference embodies the hopes and aspirations of all Member States and their determination to work together in the employment of space science and technology advances for the benefit of the entire humankind and improvement of their quality of life. You will hear more about these from the next two speakers.

Thank you, for your attention.

