Building Capacity of Developing Countries in Using Space Technology for Sustainable Development

United Nations Office for Outer Space Affairs

T. Chiku,
Chief, Committee Services and Research Section

Outline

• Overview of the work of the Office for Outer Space Affairs (OOSA)
• Legislative bodies
  – Committee on the Peaceful Uses of Outer Space
  – Achievements and current focus of work: UNISPACE III Follow-Up
• Focus and priority areas of work of OOSA
  – Sustainable Development
  – Capacity Building
  – GNSS
  – Disaster Management
• Areas of cooperation with FIG

United Nations Office for Outer Space Affairs

• Objective: To promote international cooperation in the peaceful uses of outer space for the benefit of all countries, in particular developing countries
• Main functions:
  – Secretariat for the UN Committee on the Peaceful Uses of Outer Space and its two Subcommittees
  – Implements UN Programme on Space Applications
  – Secretariat for the UN Inter-Agency Meeting on Outer Space Activities
• Organizational structure:
  – Office of the Director
  – Committee Services and Research Section (CSRS)
  – Space Applications Section (SAS)

Legislative Bodies

• United Nations General Assembly: 4th Committee
• United Nations Committee on the Peaceful Uses of Outer Space
  – Scientific and Technical Subcommittee
  – Legal Subcommittee

Membership of COPUOS and Observers

• Membership:
  – Original membership: 24 States
  – Currently 65 States
• Observers
  – Intergovernmental organizations: ESA, IMCO, ITSO, ORTEAN
  – Non-governmental organizations: ASE, CEOS, COSPAR, EUSIT, IAA, IAF, IAU, ILA, IASSA, ISPRS, ISSAC, SIA, TPS

Major achievements of COPUOS

• Five United Nations Treaties on Outer Space
  – Outer Space Treaty of 1967
  – Rescue Agreement of 1968
  – Liability Convention of 1972
  – Registration Convention of 1975
  – Moon Agreement of 1979
• Five sets of principles and declarations
  – Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space (1963)
  – Broadcasting Principles (1962)
  – Nuclear Power Sources Principles (1992)
Major achievements of COPUOS (continued)

- Three United Nations Conferences on the Peaceful Uses of Outer Space
  - UNISPACE I (1968)
  - UNISPACE II (1982)
  - UNISPACE III (1999)
- Establishment and expansion of the UN Programme on Space Applications (UNISPACE I & UNISPACE II & UNISPACE III)
- Establishment of regional centres for space science and technology education (UNISPACE II)
- Adoption of the "Vienna Declaration: Space and Human Development" (UNISPACE III)

Focus of work: UNISPACE III Follow-Up

- Creating synergy: COPUOS, OOSA and Inter-Agency Meeting on Outer Space Activities
  - COPUOS: international policy framework
  - OOSA: capacity building; training & education and operational activities; coordination and cooperation between COPUOS and other bodies in the UN system
  - Inter-Agency Meeting: coordination among UN entities (programme level)

UNISPACE III Follow-up by COPUOS through Action Teams

- 12 Action Teams in total have been established by UN Committee on the Peaceful Uses of Outer Space (COPUOS)
  - Action Team Nr. 1: Environmental Monitoring Strategy
  - Action Team Nr. 3: Knowledge-sharing
  - Action Team Nr. 4: Weather and climate monitoring
  - Action Team Nr. 6: Public health
  - Action Team Nr. 7: Disaster management
  - Action Team Nr. 9: Knowledge-sharing
  - Action Team Nr. 10: GNSS
  - Action Team Nr. 11: Sustainable Development
  - Action Team Nr. 14: Near-Earth objects
  - Action Team Nr. 17: Capacity building
  - Action Team Nr. 18: Awareness increase
  - Action Team Nr. 32: Innovative funding sources

- Recommendations on Disaster Management and GNSS: assigned highest priority by Member States of the United Nations
- Disaster Management Action Team: co-chaired by Canada, China and France
- GNSS Action Team: co-chaired by the United States and Italy

Priority areas of OOSA following UNISPACE III

- Overarching policy goal: space science and technology for sustainable development
  - UN Millennium Development Goals
- Operational goal: capacity building of developing countries in the use of space science and technology
  - Education and training support
  - Administration of long-term fellowships
  - Technical assistance
  - Outreach programmes for young people, policy makers and the general public

Capacity Building

- COPUOS: "Space and Education" 2004-2006
  - Space into Education, Education in Space, Space for Education
  - Cooperation with UNESCO
  - UN Decade of Education for Sustainable Development
- UN Programme on Space Applications
  - UN workshops, seminars and training courses and follow-up projects; long-term fellowships
- Regional Centres for Space Science and Technology Education
  - Asia: India (inaugurated in 1999)
  - Africa: Morocco (for French-speaking countries) (inaugurated in 1998)
  - Latin America: Brazil and Mexico (2 campuses) (inaugurated in 2003)
  - 3 courses on RS and GIS

Priority thematic areas of UN Programme on Space Applications: capacity building for developing countries

- Space technologies for disaster management
- Satellite communications for e-health and e-learning
- Space technologies for the management of natural resources and environmental monitoring
- Use and applications of Global Navigation Satellite Systems
- Education and research areas in basic space science
- Space law

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Capacity Building (continued)

- Inter-Agency Meeting on Outer Space Activities
  - Open-session: policy discussions with COPUOS members
  - Inventories of equipment, education and training materials, satellite datasets and other capacity-building resources provided by UN entities
- Cooperation with other international entities
  - Committee on Earth Observation Satellites (CEOS): Working Group on Education, Training and Capacity Building
  - Ad Hoc Group on Earth Observations: Sub-Group on Capacity Building

Global Navigation Satellite Systems

- COPUOS: Action Team on GNSS
  - Recommendations to UN General Assembly: establishment of an International Committee on GNSS (ICG)
  - Planning meeting for a first meeting of ICG: 1 June 2004, Vienna
  - Consideration by COPUOS as part of its recommendations to the General Assembly for its endorsement as part of initiatives following its UNISPACE III+5 review
  - Possible first meeting of ICG: end November/1st half of December 2004, Vienna
- UN Programme on Space Applications
  - Series of regional workshops and international meetings
    - Identification of priority areas for follow-up projects
    - Continuation of regional workshops and organization of expert meetings to initiate follow-up projects

Disaster Management

- COPUOS Action Team on Disaster Management
  - Recommendations to UN General Assembly: development of an implementation plan for the establishment of an Disaster Management International Space Coordination Organization (DMISCO)
    - Negotiations in COPUOS: 2-11 June 2004
- Inter-Agency Coordination
  - Policy statement on the use of space technology for disaster reduction: World Conference on Disaster Reduction (Kobe, Japan, January 2005)
  - Inter-Agency Task Force on Disaster Reduction
- Capacity-building
  - Series of regional workshops and follow-up projects through regional networks
- Operational activities
  - International Charter “Space and Major Disasters”
    - International agreement among space agencies to support relief efforts in the event of major disasters by providing space-based data and information
    - OOSA as a cooperating body, enabling the UN system to have access to the Charter: OOSA provides 24/7 hotline

Areas for possible cooperation with FIG

(continued)

- Sustainable development: achieving policy goals
  - Contributions to the follow-up process of the UN Millennium Summit and WSSD
  - Contributions to Commission on Sustainable Development