

UN/Colombia/USA Workshop on
the Applications of Global Navigation Satellite Systems

Medellin, Colombia
23 – 27 June 2008



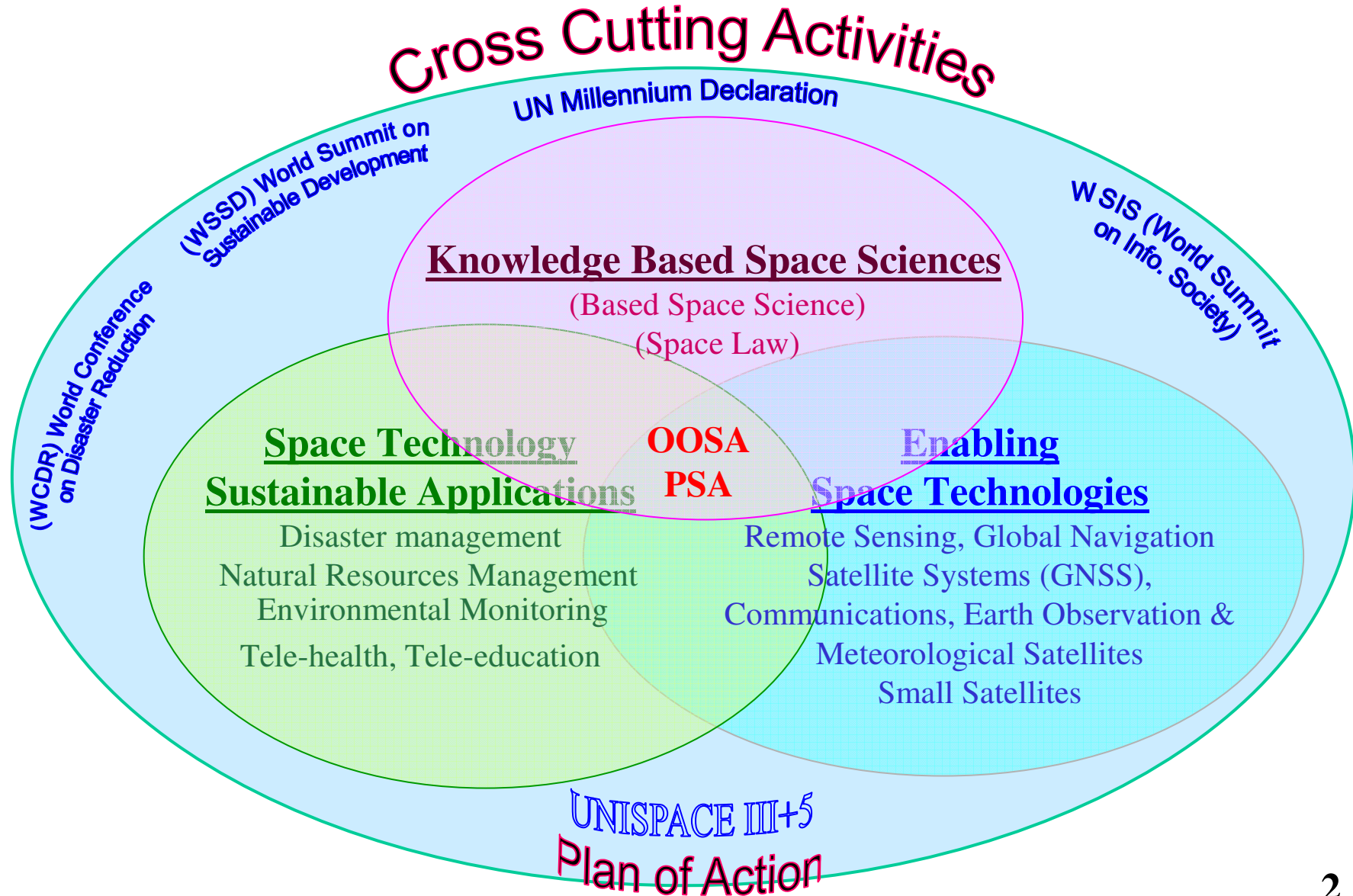
Overview
UN Programme on Space Applications

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United Nations Programme on Space Applications (PSA)



Priority Thematic Areas



Application based themes

- Disaster management
- Natural resources management and environmental monitoring
- Tele-health / Tele-education



Enabling space technologies

- Remote Sensing
- Communication satellites
- Global Navigation Satellite Systems
- Earth observation satellites
- Meteorological satellites
- Small satellites



Knowledge based themes

- Basic Space Science
- Space Law



Cross cutting covergae

- Capacity building - Regional Centres post graduate education; Fellowship Programmes
- Participation of youth in space activities
- Millennium Declaration
- World Summit on Sustainable Development
- World Summit on Information Society
- COPUOS and Plan of Actions



UN Programme on Space Applications (PSA) Activity Summary

A. Training for capacity-building in developing countries:

- **Workshops, training courses, expert meetings and symposiums**
 - 10-12 activities each year

- **Affiliated regional centres continue to provide long term postgraduate courses**
 - 4 Regional Centres for Space Science and Technology Education

- **Fellowship programme**
 - UN/Italy Long-Term Fellowship Programme on Global Navigation Satellite Systems (GNSS) and Related Applications – beginning 2005
 - UN/Argentina Fellowship Programme on Advanced School for Training in Landscape Epidemiology – beginning 2007

B. Disseminating and increasing the awareness of knowledge-based themes

- **Basic space science: Explore possible ways for sustainable development**
- **Space Law: Build capacity, UN Treaties and Principles on Outer Space**

C. Providing technical advisory services and promoting regional cooperation

Programme on Space Applications Activity Summary (cont'd)

D. Promoting the use of and access to space-based technology & information

- **Data sharing: Distribution and use of available global Landsat data sets for sustainable development in Africa**
- **Pilot projects for sustainable development**
 - **Regional and national task teams**
- **Satellite communications applications**
- **Global Navigation Satellite Systems (GNSS) Applications**
- **Satellite-Aided Search and Rescue For Distress Situations**
- **Integrated Space technology applications to thematic areas**
 - Natural resources management and environmental monitoring
 - Disaster management
 - Tele-health / Tele-education
 - Basic Space Sciences

Categories of the PSA Pilot Projects

I. Data sharing project: “Distribution and use of available global Landsat data sets for sustainable development in Africa”

- US Government, through NASA and USGS, provided the *circa* 1975, 1990 & 2000 global Landsat datasets for further distribution and use.
- Since 2005, PSA has provided Landsat imagery to 14 institutions spread through Africa region for education, training and project development.



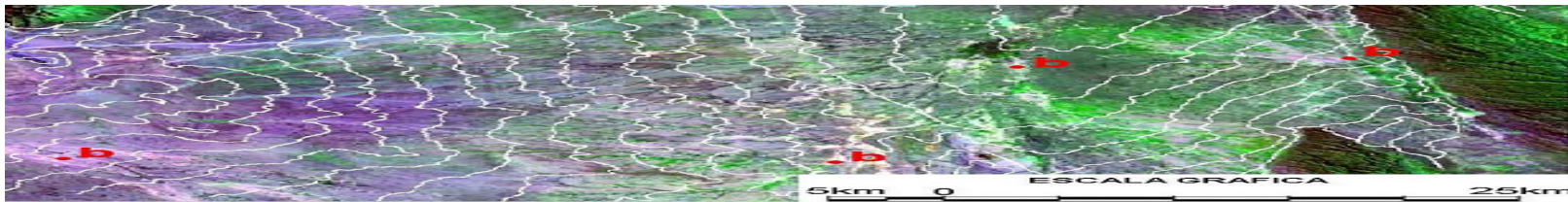
II. Policy, strategy and national budgetary allocation:

- for implementing operational space technology projects
- approach to establish policies for data sharing and space technology applications

Categories of the PSA Pilot Projects (cont'd)

III. Mapping, analysis and applications:

- Practice on defined priority areas of disasters and environmental issues
- Establish Base maps for focused types of natural disasters



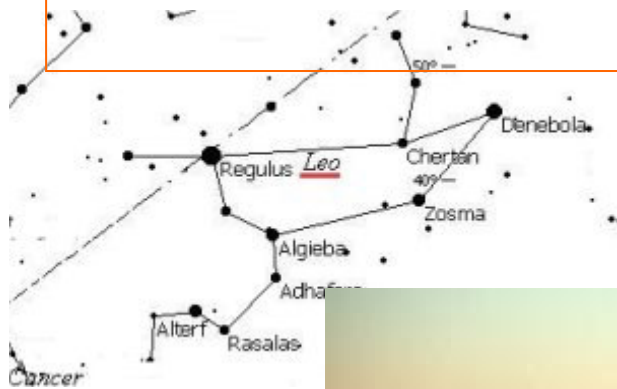
IV. Capacity Building, Training and Education

- Raise awareness on the benefits of space technology applications to improve national economic and social growth
- Stimulate the growth of indigenous nuclei and an autonomous technological base
- Provide low cost continuous education and training on how to use the space technologies and access to information resources

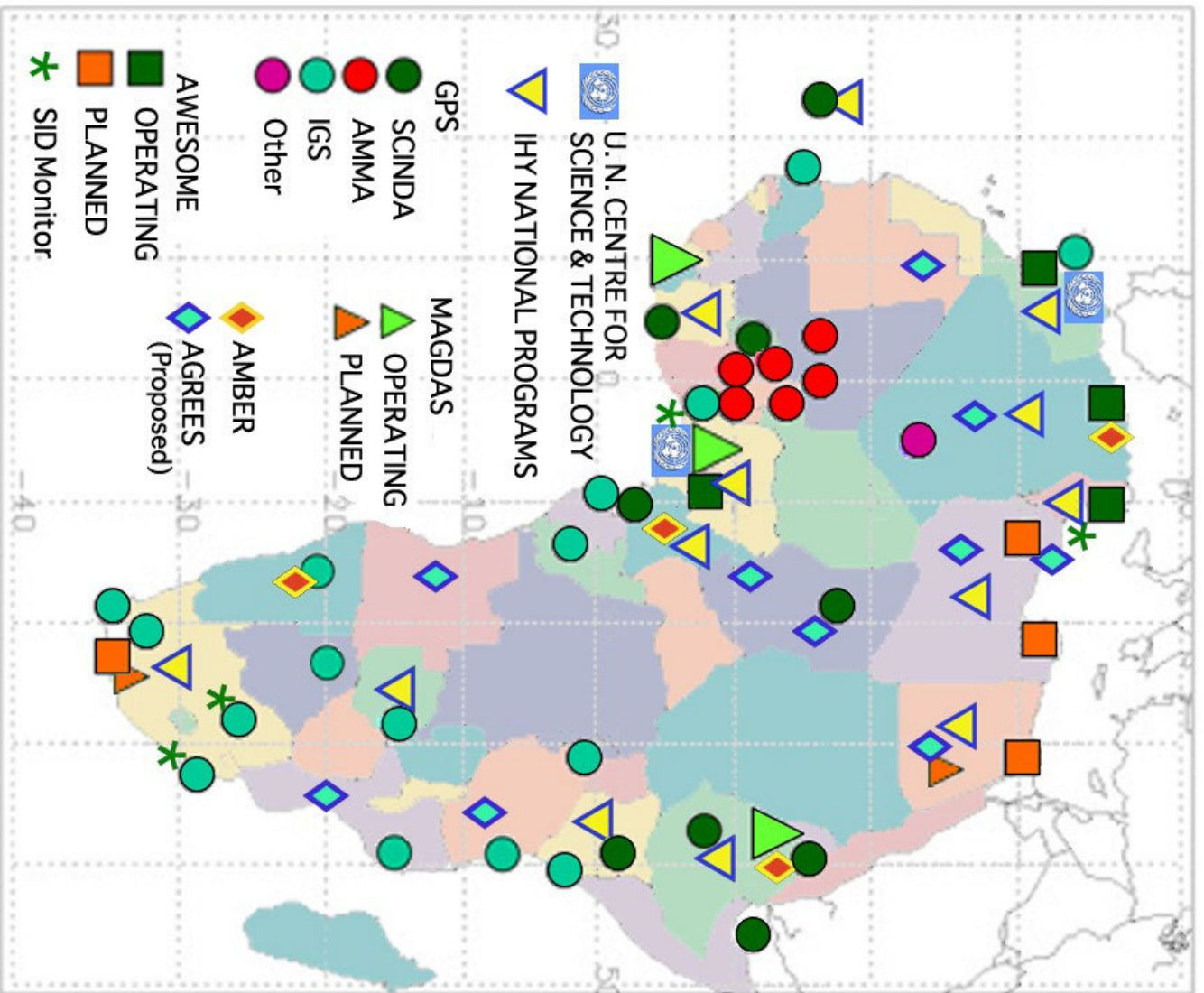
Categories of the PSA Pilot Projects (cont'd)

V. Pilot projects on basic space sciences

- Provide donated planetariums and astronomical telescope facilities
- Deploy low-cost, ground-based, world-wide instrument arrays for the International Heliophysical Year (IHY) 2007
 - As an example, a map of Africa pilot projects is shown on next slide



Example: International Heliophysical Year (IHY) 2007 Projects in Africa



Categories of the PSA Pilot Projects (cont'd)

VI. Tele-health using space technologies

- National Needs Assessment on implementing tele-health nationally
- Establish network forum to share information, exchange views and needs, lobby for establishing government policy on tele-health
- Assessment on specifications for communication system network configurations for different applications of tele-health
- Project initiatives in Latin America and the Caribbean was published in September 2007, book title: “Space Technology for E-health”
- Provide assistance to the COPUOS Action Team 6

