

*United Nations/Indonesia
International Conference on Integrated
Space Technology Applications to Climate
Change*

Jakarta, Indonesia; 2 – 4 Sept. 2013



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The UNITED NATIONS GENERAL ASSEMBLY:

The United Nations General Assembly has served for more than 5 decades as the global forum to address challenges faced by societies around the world.

- *Peace and Human security;*
- *Eradication of poverty;*
- *Health and Education;*
- *Sustainable development;*
- *Climate Change and environmental degradation.*





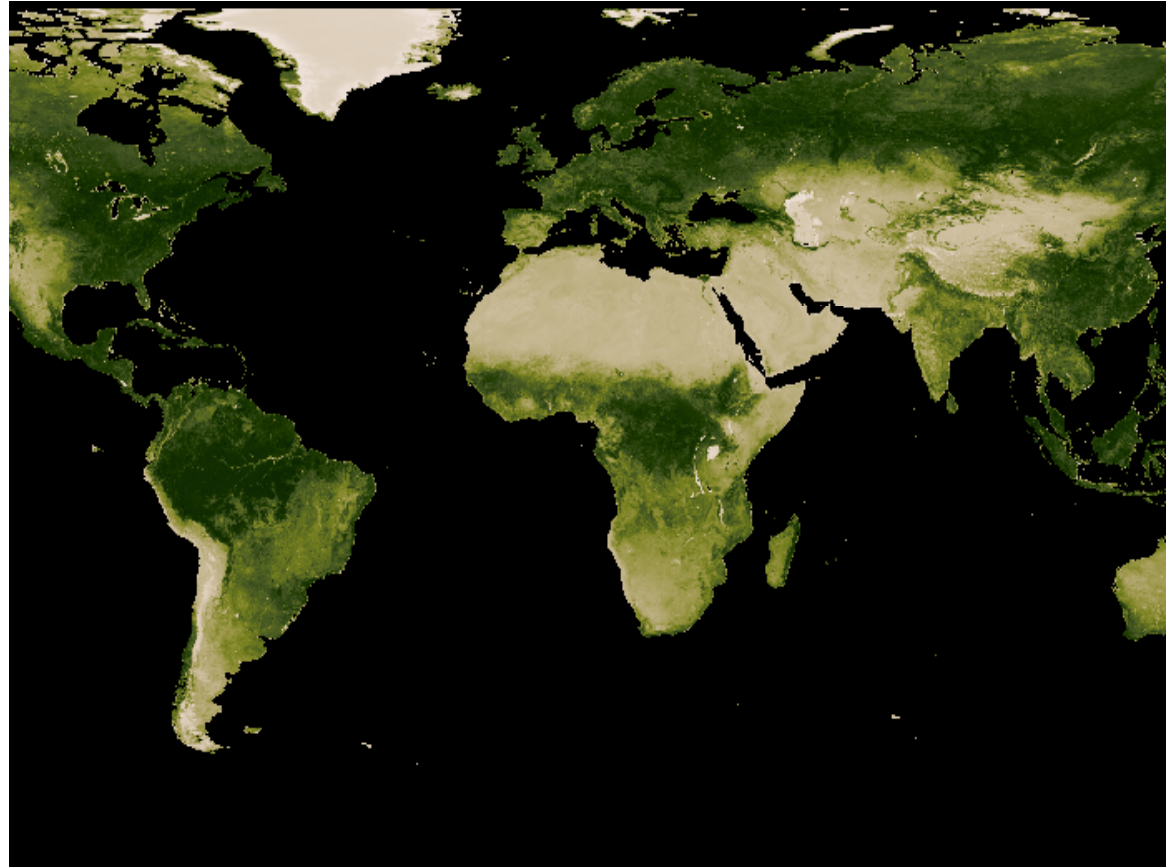
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GLOBAL OBSERVING SYSTEMS:

As a way to contribute to monitor environmental issues and climate change, the United Nations has co-sponsored the establishment of three complementary Global Observing Systems:

- *The Global Climate Observing System (GCOS);*
- *The Global Ocean Observing System (GOOS);*
- *The Global Terrestrial Observing System (GTOS).*





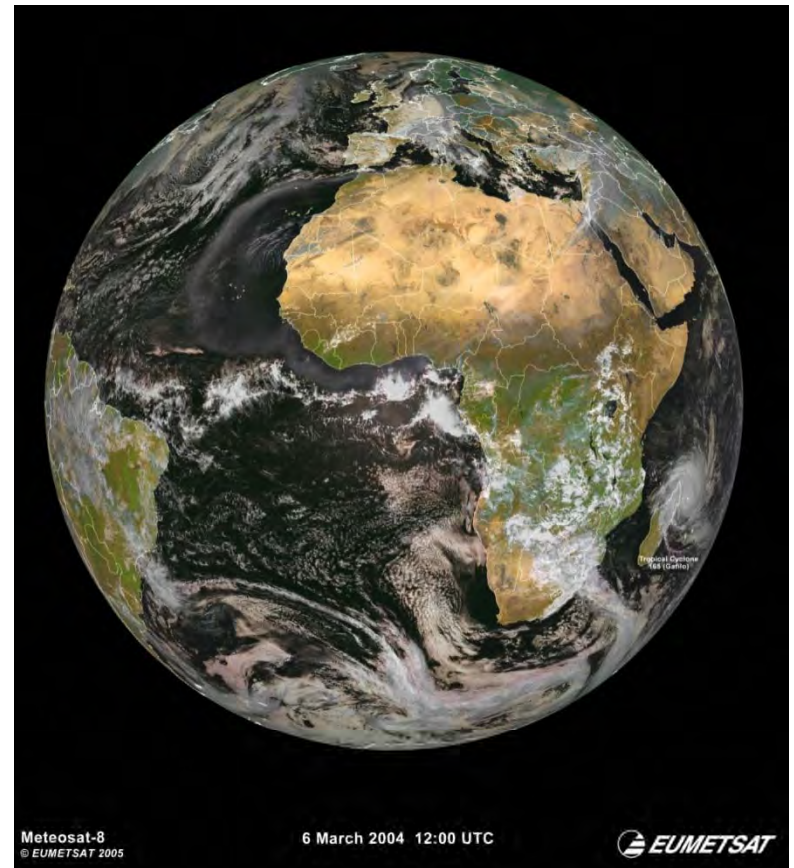
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A VIEW OF OUR PLANET FROM SPACE:

Space-based applications are being used to monitor a variety of parameters including:

- Specific Essential Climate Variables (ECV);
- Sea level globally;
- Land cover, land use, and urbanization trends;
- Cloud coverage;
- Glacier retreat and reduction in the size of polar caps.
- The global distribution of carbon dioxide in the atmosphere;
- Weather phenomena on a 24/7 basis.



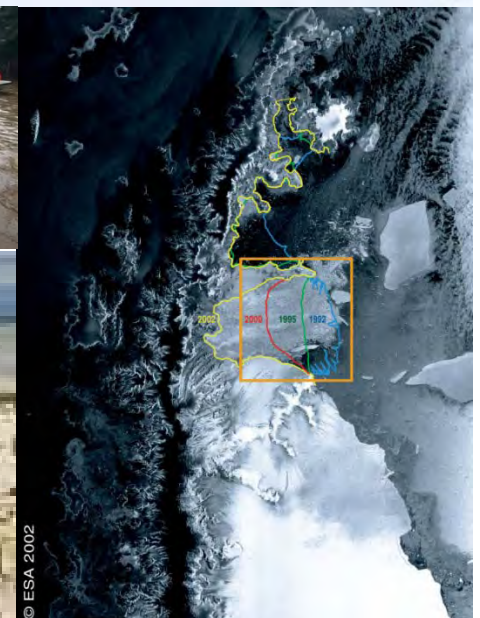
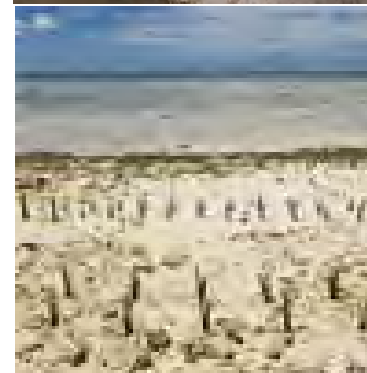
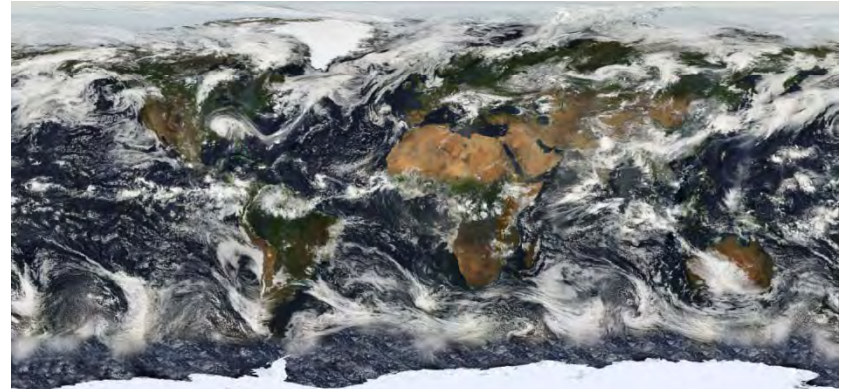


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In 2009, Mr. Ban Ki-moon, Secretary General of the United Nations, stated that:

“...Climate change remains the defining challenge of our time. The journey will be difficult, but it is one we must make. And it is one we must make together. The science demands it. The global economy needs it. And the lives and well-being of billions depends on it....”





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***COPUOS AND UNOOSA: bringing the benefits of space
to humankind***

Recognizing the benefits of space science and space applications, in its 48th Session in 2008, the *Committee on Peaceful Uses of Outer Space (COPUOS)* reiterated the need for the United Nations *Office for Outer Space Affairs (UNOOSA)* to enhance its efforts on climate change.



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COPUOS:

The **Committee on the Peaceful Uses of Outer Space (COPUOS)** was set up by the United Nations General Assembly in 1959 to facilitate international cooperation in peaceful uses of outer space. COPUOS has two Sub Committees:

- Scientific and Technical Sub Committee;
- Legal Sub Committee.



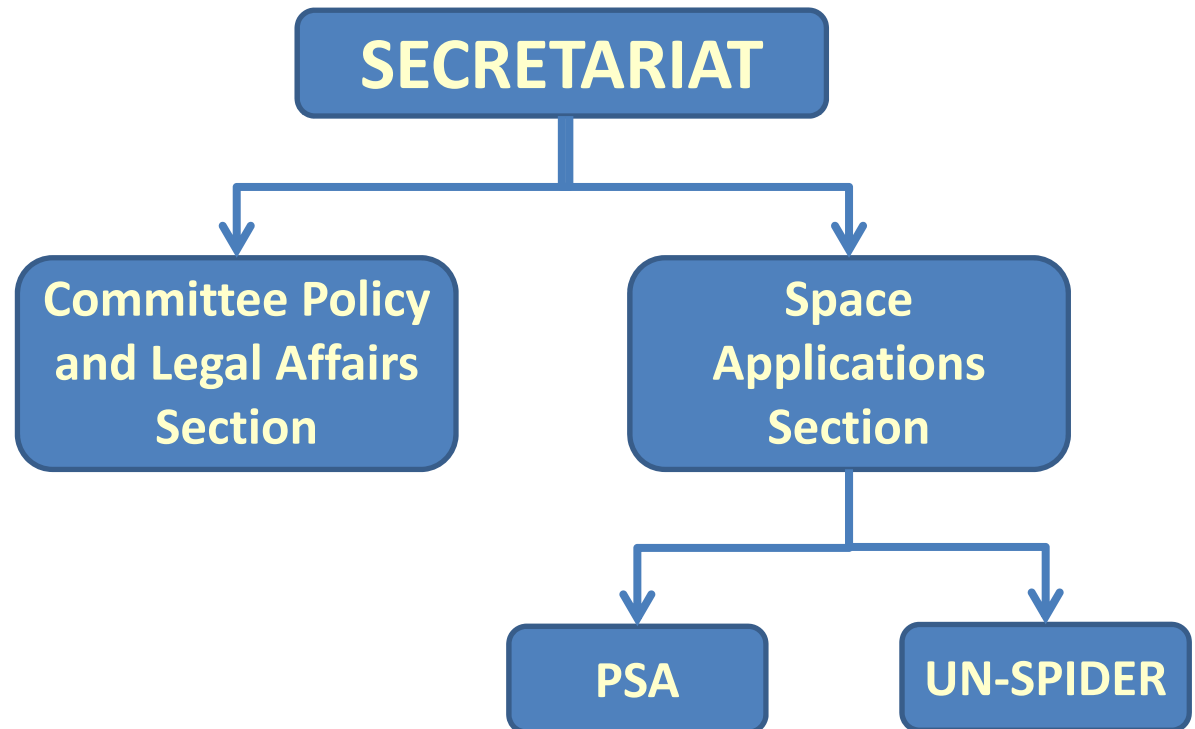


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UNOOSA:

*The core business
of the Office is to
promote
international
cooperation in the
use of outer space
to achieve
development
goals for the
benefit of
humankind.*





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THIS CONFERENCE IN JAKARTA:

In 2012, UNOOSA and National Institute of Aeronautics and Space of Indonesia (LAPAN) agreed to conduct the conference to discuss the use of integrated space technology applications to identify and to contribute to the implementation of measures related to mitigation and adaptation to climate change.

The ***European Space Agency (ESA)*** provided a financial contribution to support this conference.





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THIS CONFERENCE IN JAKARTA:

The conference recognizes the fact that climate change:

- Manifests itself in **different ways** in various regions of the world (polar caps and glaciers, mountains, coastal areas, valleys, small islands);
- Affects societies **in different ways** (sea-level rise, weather-related disasters, changing weather patterns, changing patterns in vector-borne diseases, etc);
- impacts of climate change will be **felt more severely in developing countries and Small Island developing States**, which are most vulnerable
- Affects various **sectors of development** (energy, agriculture, transportation, etc);
- Affects **ecosystems and services provided by the environment.**





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THIS CONFERENCE IN JAKARTA:

The conference incorporates plenary and working group sessions covering nine areas:

- Weather and Climate;
- Climate change and the environment;
- Climate Change and Disasters;
- Mitigation / REDD+;
- Mitigation and Adaptation in Mountains;
- Adaptation in Coastal Areas;
- Adaptation in Agriculture;

- The Role of Research in Climate Change issues;
- Data Policy





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THIS CONFERENCE IN JAKARTA:

The conference brings together experts from more than 30 countries of the world:

- Asia;
- South-East Asia;
- Australia
- Europe;
- Africa;
- The Middle East
- North and Central America;
- The Caribbean.



Map of Global Soil Degradation (UNEP GRID ARENDAL)



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THIS CONFERENCE IN JAKARTA:

The conference aims:

- 1) To serve as a forum to discuss ways in which countries affected by climate change can make better use of space technology applications to assess vulnerability to climate change;
- 2) To serve as a forum to discuss potential alternatives in the context of mitigation and adaptation to climate change;
- 3) To improve synergies among space agencies and organizations targeting efforts on climate change;
- 4) To strengthen international, regional and national cooperation in this area;
- 5) To raise awareness on the recent advances in space –based technologies, services and information resources which can be use to assess the impacts of climate change and the effects of measures implemented to reduce such impacts;
- 6) To contribute to the efforts carried out by the United Nations, Member States and regional and international organizations in this area of climate change.



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THANK YOU FOR YOUR KIND ATTENTION