

Brazil's statement for the COPUOS Plenary

1. Mr. Chairman, the General Assembly agreed that the Committee should consider, at its fiftieth session, a new item. This item entitled *“International cooperation in promoting the use of space-derived geospatial data for sustainable development”*, under a multiyear workplan, adopted by the Committee at its forty-ninth session. It is my pleasure today to point out how Brazil intends to cooperate with COPUOS to support this initiative.
2. The recent scientific reports by the International Panel on Climate Change leave no doubt about our common responsibilities in having produced an enormous change in our planet's environment. The evidence of change is already with us.
3. The scientific evidence also points out that the worst changes will fall on the more vulnerable populations worldwide. Populations already in danger, especially in desert and arid regions in the tropical belt, are especially vulnerable to climatic change. Thus the call is for immediate and cooperative action. The faster we act, the better results we can produce.
4. Thirty years of experience using land imaging satellites show that timely and high-quality geospatial data provides significant societal benefits associated with. Applications areas such as agriculture, deforestation assessment, disaster monitoring, drought relief, and land management have much to gain from space-based data.
5. Mr Chairman, despite the large success of global remote sensing programmes and the widespread availability of remotely sensed data, there is a “knowledge gap” when extracting information from images. This “knowledge gap” has arisen because our capacity to build sophisticated earth observation satellites is not matched by our means of producing information from these data sources. To a significant extent, we are failing to exploit the potential of the spatial data we collect.
6. Much of this “knowledge gap” has resulted from a big imbalance in public spending in geoinformation technology. Major earth observation satellites programmes have budgets on the billion-dollar range, where most of the money is spent in building and operating the satellites and sensors. By contrast, the public resources spent in enabling users worldwide for making use of such data are a small fraction of the cost of the space-based systems.
7. Mr. Chairman, Brazil considers that a change on this status requires adopting two concerted actions, which are within the areas of action of

COPUOS: global open access data policies and global outreach policies.

8. By global data access we mean a global consortium of land imaging satellite, which would provide data access to a constellation of satellites. Data from this constellation would be available free to all countries of the world.
9. The land imaging satellite constellation would provide 10-30 metre global land cover multispectral images at least once a week, and if possible, every 2 days. This timely data would meet the needs for fast-response applications, which are critical in all areas.
10. *Mr Chairman, is this conception of global open data access but a dream?* Brazil believes that it can be done. Together with China, our main partner in space, we are taking significant steps.
11. China and Brazil have a joint programme called CBERS, which stands for China-Brazil Earth Resources Satellite. The CBERS satellites have global coverage, using optical multispectral cameras.
12. Currently, the CBERS programme includes five satellites: (a) CBERS-1, launched in October 1999, operations ended in July 2003; (b) CBERS-2, launched in October 2003, fully operational today; (c) CBERS-2B, to be launched in September 2007; (d) CBERS-3, to be launched in October 2009; (e) CBERS-4, to be launched in October 2011.
13. China and Brazil consider that CBERS data is a “public good”. Thus, we have adopted an open data distribution policy for CBERS. CBERS images are available on Internet, free to all users in China and in South America. Currently, CBERS is the most widely available remote sensing satellite worldwide. Brazil alone has delivered more than 300,000 images since 2004 to its users in South America.
14. Brazil and China have recently agreed on a far-reaching proposal for free distribution of CBERS data to the African countries. By this proposal, the currently two existing LANDSAT ground stations that cover most of Africa - Maspalomas, in the Canary Islands, Spain, and Hartebeesthoek, in South Africa - will be upgraded to receive CBERS data.
15. This will allow to Spain and South Africa to receive CBERS data free of any charge and redistribute them, also freely, to the more than 20 African countries that are within the visibility circle of these two ground stations.
16. The CBERS free data distribution policy is considered to be an example to other nations. Already it is influencing the plans for future earth observation programmes. The Committee on Earth Observation Satellites (CEOS), an international organization of satellite operators, is defining a

series of constellations. One of those is constellations is the Land Surface Imaging (LSI) Constellation.

17. CEOS is trying to find ways about how existing and future land imaging satellites can provide tangible benefits to society. Within CEOS, there is a growing awareness that the most productive way forward is a free and open data policy for space-based earth observation data.
18. Mr. Chairman, despite significant progress on forums such as CEOS, there is a need for a forum where the global issues related to data policies are voiced in an equitable basis. And this forum is the United Nations. COPUOS has thus a significant role to play, by making strong recommendations on data policies for earth observation data that benefit the world as a whole.
19. But the role of COPUOS on the matter of *promoting the use of space-derived geospatial data for sustainable development* would be incomplete if it addressed only data policies. There is a second issue which is important: capacity building on the use of space-based geospatial data.
20. Space-based data comes in different blends of multispectral, multiresolution and multitemporal data. To be useful, this data needs to be merged with ground-based observations and surveys. *How can we make good use of such diverse data for sustainable development?*
21. Brazil's proposed policy for COPUOS is supporting globally distributed open source software. We need to build a global collaborative network of users and developers that can address the information needs of developing nations.
22. Addressing these challenges is not merely a quest for increasingly sophisticated technical solutions. We need to consider the complexity and heterogeneity of the different communities. With such cooperation and support mechanisms, we can develop "networks of actions" which are sustainable.
23. Mr. Chairman, Brazil's is actively engaged in capacity building, including:
 - Co-hosting with Mexico UN Regional Centre for Space Science and Technology for the Latin America and the Caribbean.
 - Co-charing with Spain the Capacity Building coordination of the Executive Committee of GEO (Group on Earth Observation).
 - Developing a suite of open source software products for interpretation and analysis of geospatial data. The SPRING software has

versions in Spanish, Portuguese and English and has been downloaded by more than 100,000 users worldwide.

- Working with international partners to build a global network of developers involved in open source software for geographical information systems.

24. Open source software is key engine to bridge the digital divide. Open source software represents a paradigm shift in how information technologies are used in developing countries.
25. Mr. Chairman, combining open data access and open source software is the best way to combine the efforts of developed and developing nations to promote the use of space-derived geospatial data for sustainable development. Brazil is working hard with its partners worldwide to support these goals. We applaud the efforts of COPUOS to engage in this discuss and hope that free data and free software is adopted as a strong policy on COPUOS.