

CEOS Chair's Perspective

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My dear CEOS colleagues,

Welcome to this session. You know that we are just a month away from the CEOS Plenary Meet to be held at Bangalore in October 2012. As CEOS Chair and host agency, I extend a warm invitation to all of you to please be present at the Meet where important decisions will be taken to drive the future course of CEOS actions and also it is where the baton of the next leadership of CEOS Chair will be passed on to Canadian Space Agency (CSA). I take this opportunity to extend special welcome to CSA at the Bangalore Plenary.

CEOS stands for and commits itself to an increased cooperation in satellite based earth observation and thus supporting activities related to Societal Benefit Areas to make Earth a better habitable place. In the present recessionary international scenario of political and economical uncertainties it is opportune that we focus on low cost technology and increased cooperation on satellite missions, their data sharing and techniques of broadening their application and utilization. In this endeavour, international cooperation among space agencies is already increasing and needs further push.

France and India have exemplified this with the recent successful launch of French satellite SPOT-6 from the Indian launch pad using the indigenously built polar satellite launch vehicle PSLV, which also marked the 100th mission of ISRO. Both the space agencies have time and again shown that zeal in cooperation on space

missions. This was the case this year with the successful mission of Meghatropics satellite, too, carrying microwave sensors for earth observation just a few months ago that was built and made operational through mutual partnership. Very soon the SARAL – ALTIKA is planned for launch. India is also working with agencies like NASA, NOAA, Eumetsat to make available scatterometer data to global community. The demise of many satellites which were supporting the Virtual Constellations is a major concern. In order to support the bigger challenges of data for GLAM, GFOI, Geohazards, etc., the cooperative effort of space agencies is very important to bridge the data gap. As I understand from yesterday's deliberations that the participation from China and Russia are more and more desirable for VCs and we need to put some more effort on this. Recent agreement of EUMETSAT with China State Oceanic Administration in the context of CEOS should be considered very important.

Also, geo-politically, there is growing diffidence building up across borders making the technical intercourse among scientific manpower a tad difficult. The flourishing communication technology comes pretty handy in this to minimize physical Meetings and Symposia for networking purposes and for building cooperation and tie ups among various scientific teams and their space agencies. We must take recourse to the use of modern communication methods to engage in video conferences sitting in the comfort of our homes or work places. We have found it economical and effective as well, bringing down expenses on travels and other logistic arrangements. This idea has come about owing to the difficulty we all are facing these days owing to government directive on financial austerity measures at all levels. The video and teleconferences through services like WebEx and GoToMeeting have proved effective and made possible for us to do our duties as part of our commitments to international community at CEOS.

Talking on the climate studies and earth observation missions, we know very well that we have to engage in studying long term change processes that cannot be achieved by single mission. The satellite technology is also fraught with risk and hence interoperability of sensors to fill data gaps, open data sharing, contingency planning, etc., need greater attention. Going by the recent joint draft on Climate research by CEOS, CGMS and WMO, I have learnt and gained a lot as CEOS Chair as to what the community thinks and stands by. We, as a major space agency with a number of operational satellites carrying earth observation and meteorological sensors, always support this idea on the need to develop a joint framework internationally for stewardship of climate studies through a holistic approach.

Both the climate and earth resources studies entail enormous effort on calibration-validation and infrastructure development, identifying international reference standards - both ground and space based- and relevant test sites, that prepare us to make measurements that are consistent, accurate and help in harmonizing data archival, processing and distribution. The active participation of different agencies in the joint field campaigns and satellite sensor inter-comparison exercises provide excellent opportunity for product assessment and data fill using other platforms. CEOS has matured in these tasks. All praise to different technical expert teams in the form of Working Groups on Climate, CalVal, Information Systems and Services, Capacity Building, etc., the last among these is engaged in the noble activity of promoting and spreading education in remote sensing techniques and data availability to lesser privileged nations across different continents. Virtual Constellations comprising of technical experts in individual application areas on Atmospheric Composition, Ocean surface topography, Ocean Colour Radiometry, Land Surface Imaging. Ocean Wind Vectors, Sea Surface Temperature, etc., have also played major role and they need to increase their engagements in

joint studies to define unified models and algorithms that will be of mutual benefit across the global agencies on science and policy making.

The joint Climate document, that is still undergoing several layers of editing internally among potential expert groups, is an eye opener in this regard. I call it revolutionary from the CEOS perspective as it throws open discussion among all stake holders as to what is of top priority and how we need to organize ourselves in order to penetrate the mindset of political bigwigs and our bread earners, that is, policy makers and financial institutions including respective governments, and also deliver globally relevant products.

Going through the CGMS and WGCV documents on calibration, traceability, quality assurance of data products, archiving, processing, distribution, etc., it is evident that many of the ideas and tasks carried out by both teams are almost similar in nature and may be termed complementary rather than duplication. But this leads to drain of resources and man hours of work expended on each effort separately. I call upon Strategic Implementation Team within CEOS to please give a thought on bringing these teams together by identifying differences in level of refinements required by both teams. It would be opportune to take a look at similar complementary activities in other areas as well and bring these teams together so that a unified mechanism and architecture can be built across CEOS whereby earth observation and climate study teams both can gain, thus saving precious resources of material and manpower.

Finally, the governance!

We have made rapid strides thus far in programme planning and task team formations. We need to move ahead beyond GEO post-2015 in the implementation of the GEOSS goals leading to a measurable and identifiable deliverables giving us a clear visibility

in international forums. While CEOS has been responding to the many demands put on it by various international bodies, sometimes stretching itself to the limits and other times drawn into newer activities. In this regard it is necessary to revisit the fundamentals that drive the governance of this body that is principally of voluntary nature in terms of participation, sharing of responsibilities and managing internal and external resources of finance and in-kind. In this regard the work being done through CSS is commendable. We acknowledge the fact that some things are outside our control, being dictated by the policies of the individual governments and leadership at respective space agencies. Yet we cannot sit silent and need to make necessary efforts wherever possible. That can be done effectively only through demonstration of our significant outcomes that can be showcased by virtue of the benefits they can offer. I hope that the 3 year outcome defined in the course of CSS for each VCs and WGs would make CEOS more organized and productive.

The continuity and availability of people to share responsibility is one of the concerns now. We need to formulate means to ensure these through necessary deliberations at the earliest to identify continuity of teams for CEOS leadership including the posts of CEO and DCEO over long term.

Today all efforts put on plans and arrangements made at CEOS do not percolate to mission objectives at space agencies. I see a need to make that a possibility at the earliest else it will be a case of missed opportunity and work of paper tigers going into oblivion. All space agencies need to be more receptive to the needs articulated by voluntary coordinating bodies like CEOS evolved through its different technical groups.

CEOS through its influence on GEO should make a concerted effort in building a case of support from heads of all space agencies and

governments for technical, managerial and financial support to the CEOS Programmes.

Finally, I thank one and all at SIT for organizing this Technical Workshop and to SEO for the effective video-communication arrangements.

Best wishes to all.