

**REPORT OF CEOS AD-HOC  
WORKING GROUP ON  
EDUCATION AND TRAINING (WGEdu)  
(16th CEOS PLENARY MEETING)**

**SUBMITTED BY WGEDU CHAIR  
(MUKUND RAO, ISRO)**

**COMMITTEE ON EARTH OBSERVATION  
SATELLITES (CEOS)  
WORKING GROUP ON EO EDUCATION AND  
TRAINING (WGEdu)  
NOVEMBER, 2002**

Committee of Earth Observation Satellites  
16th CEOS Plenary Meeting  
Frascati, Italy

November, 2002

## **Report of the CEOS Working Group on EO Education and Training (WGEdu)**

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### **SUMMARY AND PURPOSE**

In 1999, the 13th CEOS Plenary established an ad hoc working group on EO Education and Training (WGEdu) led by ISRO “to prepare a strategy for CEOS future activities in education and training in developing countries.” The 15th CEOS Plenary in 2001 adopted the CEOS Strategy in EO Education and Training and tasked the WGEdu to plan and implement it over a 3-year period. Through 2002, the WGEdu met once in Ottawa and had 3 teleconference meetings to develop a set of initiatives that would roll the Action Plan and Strategy into visible outputs. The significant aspects of the initiatives have been the CEOS EO Education and Training Materials Discovery site; the development of a Type-II partnership with education, training and capacity-building as major thrust areas; possible actions for a CEOS Principles of Satellite Data Provision in support of Earth Observation Education and Training and also the new development of a CEOS CDROM for education and training in developing countries. These initiatives will help implement the strategy and also further a partnership in the area of EO education and training. This report is submitted to the 16<sup>th</sup> Plenary Meeting of CEOS.

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### **ACTION PROPOSED**

PLENARY IS INVITED TO REVIEW THE WGEDU REPORT AND TO ENDORSE THE PROPOSED RESOLUTION.

Attachments:

1. Report of WGEdu for 16<sup>th</sup> Plenary
2. Proposed Resolution of CEOS WGEDU for 16<sup>th</sup> CEOS Plenary

## 1. INTRODUCTION

1. CEOS, in its 13<sup>th</sup> Plenary meeting held at Stockholm, established an ad-hoc Working Group on EO Education and Training (WGEdu) to address the issue of EO Education and Training and to arrive at a CEOS Strategy on EO Education and Training. With MrMukund Rao of ISRO Chairing the WGEdu, the WG has nominees from ASI, BNSC, CCRS, CNES, CRI, CSA, CSIRO, DLR, ESA, EUMETSAT, ISPRS, INPE, NASA, NASDA, NOAA, NRSCC, NSC, UN-ESCAP, UN-OOSA and WMO. Other CEOS Members/Associates have provided support and encouragement through their Contacts. Various EO Education and Training institutions have been specially invited to participate in the WGEdu activities. 14<sup>th</sup> Plenary also endorsed Dr Sergio Camacho, UN-OOSA as Vice-Chair of WGEdu. Full list of members and special invitees from CEOS and other institutions is given in **ANNEXURE-I**.
2. In 2001, the WGEdu proposed a Strategy on EO Education and Training and a 3-year Action Plan for implementing the Strategy to the 15th CEOS Plenary. The CEOS Plenary adopted the Strategy and Action Plan and directed WGEdu to implement the Actions over the next 3 years. In summary, the following were actions identified for implementing the Strategy:
  - Encourage CEOS agencies to make EO materials available to education and training institutions. Towards this, a format for inventory of materials worked out and received the inputs based on this.
  - Established a resource library of information regarding Earth Observation training and education together with an interactive, user-driven, web-based access mechanism.
  - Develop a set of CEOS data principles for education and training use. This set of principles will be a local addition to the current two sets of data exchange principles which CEOS agencies have adopted—the one for global change research and the one for operational use for the public benefit. The new set of data principles will enable timely and affordable access to data for Earth observation education and training efforts; improve access to the variety of Earth observation data available from Earth observation satellites and other sources for developing applications; enable teachers, trainers, students and scholars to utilise and become familiar with these data
  - Work with UN Centres and other EO education and training institutions to develop the curricula and also assessed their requirements in terms of EO data so that CEOS agencies can leverage their existing training assets and programs by providing Earth observation data, expertise and materials.
  - Initiate specific initiatives for CEOS materials to leverage and position EO capabilities – specifically for education and training.
  - Bring focus on EO Education and Training activities through enhanced international cooperation and bringing together resources and capabilities for education and training.

- To increase awareness of Earth Observation technology and applications – specifically in developing countries.
- To work with educational institutions to experiment with and demonstrate new tools and techniques for imparting education and training in the field of Earth observation.

## 2. MAJOR ACTIVITIES OF WGEDU DURING 2002

3. CEOS WGEdu conducted its business through 3 teleconference meetings and a firm WG meeting held at Ottawa during May 21-22, 2002. The WGEdu carried over some of the activities of the past year and concentrated on implementing the Action Plan.
4. In 2002, CEOS WGEdu has initiated and furthered the following activities:
  - 4.1. CEOS agencies were requested to leverage their existing training assets and programs by committing EO data to the EO education & training agencies – especially the UN Centre. To assist this process, WGEdu has initiated a survey of the UN Centre needs (of data, materials and resources).
  - 4.2. CCRS/NASDA/ISRO coordinated for preparing an inventory of available EO materials with CEOS agencies as part of establishing the Resource Library. NASDA is hosting website of WGEdu activities which posts inventories and pointers to EO Education materials on the web. The design of a web page and pointers to available materials has been worked out. Towards populating the database, CEOS agencies have been requested to provide their metadata on EO education and training resources.
  - 4.3. CEOS WGEdu, in collaboration with ISPRS TC VI and sponsorship from ISRO, is developing a proto-type of a Internet based EO and GIS training programme with the main focus "learn while you can" and adopting distance learning concepts. This initiative is in its initial design stage and is envisaged for preview next year.
  - 4.4. UN-OOSA spearheaded, through WGEdu, the finalisation of the Curricula Review for the UN Regional Centres for Space Science and Technology Education. The final curricula review report has been published by UN and is available as possible standard curricula. Un-OOSA plans for such a review every 5-years and would use the WGEdu forum to further this activity and bring in the much-needed focus of CEOS Agencies to the UN Centres.
  - 4.5. CNES is supporting the development and furthering of its earlier initiative of the CEOS CD-ROM (being pursued through WGISS). WGEdu has seen value of such a education material development and has encouraged CNES and other agencies to participate in this endeavour.
  - 4.6. As an outcome of the World Summit on Sustainable Development (WSSD), WGEdu has assisted CEOC Chair to develop a Type-II Partnership that would enable bring international focus to education and

training needs – thus contributing to a capacity-building requirement for the use of EO data in support of sustainable development.

### 3. UN CENTRE NEEDS - COMMITMENT REQUIRED FROM CEOS

5. WGEdu initiated a survey of the EO data needs of UN Regional Space Centres and contacted the Director's of the Centres in India, Morocco, Brazil/Mexico and Nigeria. These Centres have indicated that they require the different EO datasets for 2 purposes:
  - 5.1. For teaching purposes – where the emphasis is on obtaining as many EO satellites data as possible so that the scholars are exposed to a variety of sensor capabilities and applications.
  - 5.2. For pilot-projects that students carry out in their home countries and require 1 or 2 scenes for specific applications. However, this requirement will be of a particular EO sensor as the scholar takes up a specific project.
6. A detailed questionnaire has been sent to them and responses have been analysed. The requirement of EO data for these Centres is given in **ANNEXURE – II**.
7. While CEOS may consider these requests, in the coming days, WGEdu proposes to further take up the assessment and send a comprehensive report of the requirements to VCEOS Agencies to respond and provide datasets to the UN Centres.

### 4. CEOS DATA POLICY FOR EO EDUCATION AND TRAINING

8. A WGEdu team, led by NASA and consisting of ISRO, UN-OOSA and ESA, has worked out a basic framework for drafting a set of principles for data provision to facilitate EO Training and Education. These principles, yet to be finalised, would be based on the two extant sets of CEOS data exchange principles and are meant to provide guidance to CEOS agencies, are not binding and recognised that they would not supercede an agency's sovereign data policies. The draft principles have been discussed at length via email and in the WGEdu meeting in May, 2002.
9. The basic essence of the principles that are being worked out is as follows:
  - 9.1. CEOS agencies should endeavor to provide on an on-going basis comprehensive and complete data sets for education and training purposes.
  - 9.2. CEOS agencies should strive to adhere to the satellite data exchange principles in support of global change research and principles on satellite data provision in support of operational environmental use for the public benefit when making data available for education and training purposes.
  - 9.3. CEOS agencies should provide access to data at the lowest possible cost and on a non-discriminatory basis.

- 9.4. CEOS agencies should provide easy and timely access to their data and information which could be used for Earth observation education and training. This access can be through individual agencies' distribution mechanisms or through mechanisms developed by CEOS.
- 9.5. In specific, CEOS agencies must come up-front to support the UN Regional Centres for Space Science and Technology Education for their EO data needs – considering that these Centres, need access to the variety of datasets available from different EO missions and enable scholars to be exposed to the use of such datasets.
10. As a step towards finalising the draft principles, the WGEdu proposes a data workshop be held in early 2003 to have more focussed discussions and to more fully vet the principles. The workshop would be organised by the WGEdu with appropriate data policy experts from CEOS agencies and participation is desired from the broader CEOS community, including the EO Education and Training institutions and the UN Regional Centres. Through this Workshop, WGEdu hopes to get a broader endorsement and agreement to the principles and submit to the 17<sup>th</sup> CEOS Plenary the final draft for consideration and adoption.
11. The WGEdu requests CEOS agencies to provide names of their appropriate data policy representatives to the WGEdu Chairman by February 1, 2003.

## **5. REPORT ON E&T MATERIALS DISCOVERY INITIATIVE**

12. CCRS/NASDA/ISRO coordinated for preparing an inventory of available EO materials with CEOS agencies as part of establishing the Resource Library. The goal of the Education and Training Materials Discovery Web Site is two fold:
  - 12.1. It will make earth observation training and education materials created by the various CEOS members and associates more visible and searchable
  - 12.2. It will provide a definitive and consolidated source of links (URLs) where students and professionals may find credit courses through distance learning, training and education materials.
13. The basic database structure of the Education and Training Materials Web Site has been developed and a graphical search interface concept has also been developed to provide a user-friendly mechanism for searching purposes. Currently, searching can be performed from a conventional text-based searching interface developed by AIT. The graphical searching system implementation will be completed by next year. The design has been discussed within WGEdu and has now been taken up for populating the database.
14. CCRS developed a format/questionnaire for obtaining metadata of CEOS Agencies materials on EO Education and Training – which was forwarded by WGEdu Chair to various agencies. The agencies that have contributed information are: The Canada Centre for Remote Sensing (CCRS), Deutscher Zentrum für Luft - und Raumfahrt (DLR), and International Ocean Colour

Coordinating Group (IOCCG) and NASA have already provided inputs and other CEOS Agencies have committed to provide their inputs.

15. Once the web based materials of CEOS Agencies have been posted the WGEdu will look at a mechanism to provide other types of materials (i.e. CD-ROM's, materials that can be purchased etc).

## 6. TYPE II PARTNERSHIP

16. The partnership strategy for Earth Observation Education and Training is the establishment of an effective coordination and partnership mechanism among CEOS agencies and institutions offering education and training around the world. The key objective is to facilitate activities that substantially enhance international education and training in Earth observation techniques, data analysis, interpretation, use and application in support of the objectives of Agenda 21.
17. Earth observation education and training programmes can be improved through CEOS involvement, and, in return, these programmes will assist CEOS, other Earth observation data providers, and users by turning out the next generation of Earth observation engineers, scientists, and applications specialists and by increasing the usage of Earth observation data. The detail on Earth Observation Education and Training Type II Partnership is given at **ANNEXURE - III**.
18. WGEdu planned for organizing the EO Summit and the WGEdu workshop in the developing country by NOAA, which will be considered as towards Type II Partnership.

## 7. CEOS CD ROM INITIATIVE

19. WGEdu has taken the initiative of further development of the CEOS CD-ROM – which had been organised under WGISS through CNES support. CNES has offered to continue the support for developing this under WGEdu.
20. The "CEOS CDROM FOR EDUCATION AND DEVELOPPING COUNTRIES" is getting wider and wider recognition as a reference document for getting quickly acquainted with Remote Sensing tools and applications. After a first edition published in the frame of WGISS activities by CSIRO in 96, CNES has since taken the editorial responsibility for 97, 98 and 2000 version. Up to now nearly 30 000 copies have been distributed on a request basis (means only to interested peoples). The 2000 version has been continuously updated and the third release has been dispatched end of this year. Each of the CEOS organization will obtain free copies (50 to 300 depending on their needs) for internal and external use. The present edition has kept its original concept based on a very simple html coding and a simplified set of navigation rules that make it straightforward to manipulate and make it an attractive supporting material for training specifically in developing countries.
21. Further work is now contemplated in view of better reflecting CEOS activities and widening its scope by a larger set of contributors (control of environment,

IGOS activities and others) and also taking advantage of other CEOS material like CEOS handbook, WGEdu products etc. According to this evolution discussions have been engaged with WGEdu on a possible CEOS new scheme for this activity that could be finalized for a shift of this activity from WGISS to WGEdu.

22. WGEdu welcomes the offer of CNES and agrees to “adopt” the CEOS CD-ROM initiative and give it the focus of an education and training material of value. CEOS Plenary may endorse this move.

## 8. CHANGE IN CHAIR OF WGEDU

23. ISRO (Mukund Rao) has Chaired the WGEdu initiative right from its inception 3 years ago and has provided the lead to making WGEdu an effective forum of CEOS and addressing focus of efforts needed in support education and training activities for EO.
24. With 3 years of lead provided by Mr Mukund Rao, ISRO (ably supported by Dr Rajeev Jaiswal) and also considering his opinion of the need to give opportunity to the Vice-Chair to further WGEdu activities within the next 2 years term of WGEdu, Mr Mukund Rao offered to step down and recommended to WGEdu to endorse Dr Sergio Camacho to be nominated the next Chair of WGEdu. WGEdu, while thanking the efforts and the valuable support provided by Mr Mukund Rao and also recalling his efforts at conceptualising and shaping this Working Group, endorsed the nomination of Dr Sergio Camacho, who has served as Vice-Chair for 3 years.
25. WGEdu recommends to CEOS Plenary to support the candidature of Dr Sergio Camacho as the next Chair of the WGEdu.
26. WGEdu also recommends to CEOS Plenary to specially mark appreciation and commend the role of Mr Mukund Rao and Dr Rajeev Jaiswal, who has served as Secretary to the WGEdu for 3 years, for their valuable contributions over the past 3 years.
27. With Dr Sergio Camacho nominate to Chair, WGEdu, WGEdu also recommends to CEOS Plenary to authorise the WGEdu Chair to identify a new Vice-Chair, in consultation with the CEOS Chair, by a process of discussion and consultation with other WGEdu Members.

## 9. RESOLUTION FOR 16<sup>th</sup> CEOS PLENARY

28. WGEdu urges CEOS Plenary to consider and adopt the resolution placed at **ANNEXURE – IV** – so as to initiate the next step of activities towards EO Education and Training.

**ANNEXURE -I**
**CEOS WGEDU MEMBERS AND CONTACTS**
**MEMBERS:**

No.	NAME	AGENCY	E-MAIL ADDRESS
1	Mukund Rao	ISRO (Chair)	isroeos@blr.vsnl.net.in
2	Sergio Camacho	UN-OOSA (Vice Chair)	<a href="mailto:Sergio.Camacho@oosa.un.or.at">Sergio.Camacho@oosa.un.or.at</a>
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21	Hans Haubold	UN-OOSA	hans.haubold@oosa.un.or.at

No.	NAME	AGENCY	E-MAIL ADDRESS
22	Don Hinsman	WMO	Hinsman_D@gateway.wmo.ch
23	Andree Beland	Agence spatiale canadienne Centre spatial John H. Chapman	andree.beland@espace.gc.ca
24	Rajeev Jaiswal	ISRO (Secretary)	rajeev@isro.org

### SPECIAL INVITEES

No.	NAME	AGENCY	E-MAIL ADDRESS
1	Christine Pohl	ITC	<a href="mailto:pohl@itc.nl">pohl@itc.nl</a>
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3	Jean-Luc-Bessis	GDTA	jluc@gdta.cnes.fr
4	Karl Harmsen	UN CSSTE-AP	cssteap@del2.vsnl.net.in
5	Abderrahmane Touzani	UN CRASTE-LF	craste@emi.ac.ma
6	Ekundayo E Balogun	UN CSSTE-E	ebalogun@oauife.edu.ng
7	Valerie Hood	EURISY	eurisy@micronet.fr
8	Ravi Gupta	CSDMS	<a href="mailto:Ravi.Gupta@csdms.org">Ravi.Gupta@csdms.org</a>
9	Jean-Yves Bouchardy	UNCHR	BOUCHARD@unchr.ch
10	M Lynch		m.lynch@cc.curtin.edu.au

## ANNEXURE – II: ASSESSMENT OF EO NEEDS OF UN CENTRES

UN Centers have been contacted:

- REGIONAL CENTRES FOR SPACE SCIENCE AND TECHNOLOGY EDUCATION in ASIA AND THE PACIFIC (CSSTE-AP)
- REGIONAL CENTRES FOR SPACE SCIENCE AND TECHNOLOGY EDUCATION IN AFRICA (CRASTE-LF)
- CENTRE FOR LATIN AMERICA AND THE CARIBBEAN
- CENTRE FOR THE SOUTH AMERICAS – BRAZIL/MEXICO

### EO DATA REQUIREMENT INDICATED:

- Name of the Center: **CRASTE-LF**
- Address: B.P. 765, Av. Ibn Sina, Rabat-Agdal (Maroc) MOROCCO
- Contact Person: Dr. Abderrahmane Touzani, Director
- Course organized/every year :  
Remote Sensing and GIS : 2001 – 2003 – 2005  
Satellite Meteorology and Global Climate : 2002 – 2004

No.	Satellite	Sensor	Geographic Coverage	Estimate Scenes	Period/Year	Total Scenes
1	Landsat 7	ETM+	CRASTE-LF	14	2002, 2004, 2006	42
2	Spot 4	HRVIR	CRASTE-LF	14	2002, 2004, 2006	42
3	Envisat	ASAR	CRASTE-LF	14	2002, 2004, 2006	42
4	Envisat	MERIS	Maroc, Algérie, Bénin, Togo, Tunisie, Gabon, Congo, Mauritanie, Sénégal	18	2002, 2004, 2005	54
5	IRS-D	IRS-D	CRASTE-LF	14	2002, 2004	28
6	Radarsat 1	Radarsat 1	CRASTE-LF	14	2003	14
7	JERS	SAR	CRASTE-LF	14	2002	14

- Name of the Center: **CSSTE-AP**
- Address: IIRS Campus, No.4 Kalidas Road, Dehra Dun -248 001, INDIA
- Contact Person: Prof Karl Harmsen, Director
- Course organized/every year :  
Remote Sensing and GIS: 1996, 1997-1998, 1998-99, 1999-2000, 2000-01, 2001-02  
Satellite Meteorology and Global Climate: 1998 & 2000-01

No.	Satellite	Sensor	Geographic Coverage	Estimate Scenes	Period/Year	Total Scenes
1	TERRA	ASTER	Dehradun City Beas river basin upto Pandoh reservoir, H.P 12 AP Countries	25	April, 2001 to Sept, 2001	50
2	TERRA	MISR	Dehradun Valley	5	Sept-Oct, 2001	10
3	TERRA	MODIS	Dehradun Valley	2	April/May, 2001	10
4	TERRA	MOPITT	Dehradun Valley	1	Oct, 2001-March 2002	8
5	ERS	AMI	Dehradun Valley	6	April-May, 2001	12
6	ENVISAT	MERIS	Dehradun Valley	4	Sept-Oct, 2001	8
7	ENVISAT	MWR	Dehradun Valley		Sept-Oct, 2001	TBI
8	ENVISAT	DORIS	Dehradun Valley		Oct-Nov, 2001	TBI
9	RADARSAT	Imaging Mode	Dehradun City	4	Sept-Oct, 2001	8
11	ENVISAT	AMI	Asia Pacific Region (12 countries)	12	Dates will be known afterwards	24
12	Landsat-7	ETM	Asia Pacific Region (18 countries)	18	Dates will be known afterwards	36
13	SPOT5	PAN+XS	Asia Pacific Region (6 countries)	6	Dates will be known afterwards	12
14	IRS	PAN+LISS 3	India and some AP countries	30	In 2001, 2002 and for 2003	90 (ISRO has committe d these scenes)
15	IKONOS	PAN and XS	Dehradun	4	2001	8

Note: These requirements may get updated in 2002 and ahead for pilot-projects that will be conducted by scholars as part of the curriculum.

**ANNEXURE-III**

**Earth Observation Education and Training Type II Partnership**

The partnership strategy for Earth Observation Education and Training is the establishment of an effective coordination and partnership mechanism among CEOS agencies and institutions offering education and training around the world. The key objective is to facilitate activities that substantially enhance international education and training in Earth observation techniques, data analysis, interpretation, use and application in support of the objectives of Agenda 21.

The partnership will:

- Allow space agencies, education and training providers, UN agencies and other entities to coordinate activities for specific education and training programmes and to exchange experiences and information;
- Provide opportunities for CEOS agencies, UNEP, UNOOSA, and others to network with each other, as well as with educational and training institutions;
- Provide for the timely integration and refresh of Earth observation data, information and techniques into education and training programmes;
- Provide an opportunity to agencies to disseminate materials, data, information, experts and guidance, as appropriate, for improving Earth observation training and education around the world;
- Promote a growing cadre of specialists in Earth observation who will address the growing environmental questions facing the world and who will develop expanded practical applications of Earth observation data and information world wide;
- Enable better and more far-reaching outreach to the larger international community and general public;
- Underscore the relevance of Earth observation for formulating policy and for addressing environmental and sustainable development issues at local, national, regional and global levels as well as for addressing scientific questions of relevance.

**Expanded results of the Partnership:**

Earth observation education and training programmes can be improved through CEOS involvement, and, in return, these programmes will assist CEOS, other Earth observation data providers, and users by turning out the next generation of Earth observation engineers, scientists, and applications specialists and by increasing the usage of Earth observation data.

Nationally, CEOS agencies will work with education, training and development agencies by providing guidance, materials and experts. CEOS agencies, where possible, will work to enable a linkage of these domestic agencies with international

agencies in this field. Similarly, internationally, CEOS will encourage its agencies to support the UN Regional Centres for Space Science and Technology Education, the UNEP GRID training programs, and other international institutions providing Earth observation education and training in the application of satellite data and information for sustainable development.

The United Nations Programme on Space Applications (PSA) will work to improve the use of space science and technology for the economic and social development of all nations, in particular developing countries. Under the Programme, OOSA conducts training courses, workshops, seminars and other activities on applications such as disaster management.

Also under the Programme, the Regional Centres for Space Science and Technology Education, affiliated to the U.N., offer education, research and applications programmes for university educators, as well as research and applications scientists, through theory, research, applications, field exercises, and pilot projects in those aspects of space science and technology that can contribute to sustainable development. Each centre focuses on (a) remote sensing and geographic information system, (b) meteorological satellite applications, (c) satellite communications and geopositioning systems, and (d) space and atmospheric sciences. Its data management units are linked to relevant global databases.

UNEP GRID is prepared to provide analytic and training support on imagery analysis and related remote sensing topics, GIS methodology and operation of software/hardware, data management, environmental reporting and Web technologies, including Internet mapping. The aim is to build and strengthen the environmental information management capacity of UNEP partner organisations and national institutions. GRID also offers internship opportunities for students and young professionals to receive hands on training and experience working with state-of-the-art computers and software systems. GRID carries out interpretation of satellite imagery as part of its global environmental assessment work, as well as for use by UNEP divisions and partner institutions that are not specialized in remote sensing or do not have access to image analysis hardware or software. GRID's archives contain numerous high quality data sets at various scales (global, continental, national and sub-national) on a variety of environment related themes. The data are provided free of charge to users around the world.

**ANNEXURE-IV**

**DRAFT RESOLUTION FOR CONSIDERATION BY 16th CEOS  
PLENARY**

The Sixteenth Plenary of the Committee on Earth Observation Satellites:

**Noting** the progress made by CEOS WGEdu in implementing the CEOS Strategy and Action Plan on EO Education and Training – especially in the UN Centre support; EO Materials Discovery Initiative; type II Partnership; CEOS Data Principles for Data provision to facilitate EO Training and Education –; furthering the CEOS CD-ROM etc

**Noting** that efforts in these initiatives need to be crystallised for visible results in the coming year and in time of the 17<sup>th</sup> CEOS Plenary

**Tasks** the WGEdu to:

- Complete the survey of EO data and materials requirement of UN Regional Centres and prepare and circulate a document for CEOS Agencies to respond and commit
- Initiate actions for finalising the Principles for Data provision to facilitate EO Training and Education – through the proposed Workshop and urges CEOS Agencies to nominate policy and technical experts to this Workshop
- Coordinate with CEOS Agencies for an early completion of the EO E/T Material Discovery Initiative and urges CEOS Agencies to fully support and provide inputs for this initiative
- Further the Type II Partnership amongst CEOS and other agencies to facilitate activities that substantially enhance international education and training in Earth observation techniques, data analysis, interpretation, use and application in support of the objectives of Agenda 21.
- Coordinate the development of the Internet based EO/GIS Training Module, sponsored by ISRO, in coordination with ISPRS and work for its demonstration in time with the 17<sup>th</sup> CEOS Plenary.
- Take up the CEOS CD-ROM task after a shift of the initiative from WGISS and also commends CNES support in furthering the CEOS CD-ROM as an education and training material.

**Approves** and endorses the nomination of Dr Sergio Camacho as the new Chair of WGEdu and also for a new Vice Chair to be appointed by the WGEdu Chair, in consultation and discussion with the CEOS Chair and other WGEdu Members.

**Appreciates and Thanks** the leadership role provided by Mr Mukund Rao of ISRO, ably supported by Dr Rajeev Jaiswal, in conceptualising and furthering the activities of WGEdu over the past 3 years

**Commends** the excellent work done by the Working Group and its Members and urges CEOS Agencies to continue their support to the WG activities