
COMMITTEE ON THE PEACEFUL USES OF
OUTER SPACE

Scientific and Technical Subcommittee
Forty-second session
Vienna, 21 February – 4 March 2005

List of space-related initiatives and programmes carried out by member States of the Committee on the Peaceful Uses of Outer Space and within the United Nations system that respond to specific recommendations contained in the Johannesburg Plan of Implementation

At its forty-sixth session, the Committee on the Peaceful Uses of Outer Space noted with satisfaction that the Scientific and Technical Subcommittee had endorsed the proposals of the Inter-Agency Meeting on Outer Space Activities to strengthen inter-agency cooperation in the use of outer space within the United Nations system¹. The proposals included inviting member States of the Committee to complete the list of space-related initiatives and programmes that respond to specific actions recommended in the Plan of Implementation of the World Summit on Sustainable Development (WSSD).

The present document contains the list that compiles information submitted to the Office for Outer Space Affairs, by 31 January 2005, by member States of the Committee and entities of the United Nations system on their space-related initiatives and programmes that respond to specific recommendations contained in the WSSD Plan of Implementation. The list can also be found on the website of the Inter-Agency Meeting at: <http://www.uncosa.unvienna.org/iamos/2004/wssd-list-oct2004.doc>.

At its twenty-fifth session, held from 31 January to 2 February 2005 in Vienna, the Inter-Agency Meeting reviewed and updated the list and agreed that this document should be submitted to the Scientific and Technical Subcommittee at its forty-second session.

The information contained in the list could serve as a comprehensive survey of the space community's response to the WSSD outcomes and a useful interactive source of reference for policy makers and development community representatives, particularly in developing countries, interested in taking advantage of the use of space science and technology and their applications to strengthen follow-up actions to the WSSD Plan of Implementation.

The present document is being circulated for information of the Subcommittee. Interested member States of the Committee are invited to further contribute information on their space-related activities that respond to specific actions contained in the WSSD Plan of Implementation. A revised list, with additional information to be provided by the United Nations entities and member States of the Committee, will be made available at the forty-eighth session of the Committee, in June 2005.

¹ *Official Records of the General Assembly, Fifty-eighth Session, Supplement No. 20 (A/58/20), paras. 112-116.*
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**List of space-related initiatives and programmes
carried out by member States of the Committee on the Peaceful Uses of Outer Space
and within the United Nations system that respond to specific recommendations contained in
the Johannesburg Plan of Implementation
of the World Summit on Sustainable Development²**

I. Acronyms used in the list

AETS	-	European Application of Technology and Services
AFEID	-	French National Committee of the International Commission on Irrigation and Drainage
AMIS	-	Advanced Methods for Innovation in Science (CIRAD, France)
ANRH	-	National Agency for Water Resources (Algeria)
ASA	-	Austrian Space Agency
ASI	-	Italian Space Agency
BRLI	-	Bio-Reference Laboratories (USA)
CEA	-	Atomic Energy Agency (France)
Cemagref	-	Agricultural and Environmental Engineering Research (France)
CERFACS	-	European Centre for Research and Advanced Training in Scientific Computation (France)
CEREN	-	Centre d'essais et de recherche de l'Entente interdépartementale en vue de la protection de la forêt contre les feux (France)
CERN	-	European Organization for Nuclear Research
CESBIO	-	Centre for the Study of the Biosphere from Space (France)
CETP	-	Centre for the Study of Earth and Planets Environments (France)
CIRAD	-	Agricultural Research for Developing Countries (France)
CLS	-	Collecte Localisation Satellites (France)
CONAE	-	Comision Nacional de Actividades Espaciales (Argentina)
CNDP	-	Centre National de Documentation Pédagogique (France)
CNES	-	Centre National d'Etudes Spatiales (France)

² This document is available online at: <http://www.uncosa.unvienna.org/iamos/2004/wssd-list-oct2004.doc>.

CNRM	-	National Centre for Meteorological Research (France)
CNRS	-	French National Centre for Scientific Research
CRDP	-	Educational Centre for Research and Development (France)
CSA	-	Canadian Space Agency
CS-SI	-	CS Information systems (France)
DESA	-	United Nations Department of Economic and Social Affairs
EADS	-	European Aeronautic Defence and Space Company
ELTE	-	Eötvös Loránd University (Hungary)
ENSG	-	National School of Geographical Sciences (France)
ESA	-	European Space Agency
ESCAP	-	United Nations Economic and Social Commission for Asia and the Pacific
EU	-	European Union
EUMETSAT	-	European Organization for the Exploitation of Meteorological Satellites
FAO	-	Food and Agriculture Organization of the United Nations
FDC	-	France Développement Conseil
GDTA	-	Groupeement pour le Développement de la Télédetection Aérospatiale (France)
GISTDA	-	Geo Infomatics and Space Technology Development Agency (Thailand)
GMES	-	Global Monitoring for Environment and Security
Ifremer	-	French Research Institute for Exploration of the Sea
IGN	-	National Geographic Institute (France)
IMFT	-	Sertit Irit, Institut de Mécanique des Fluides de Toulouse (France)
INRA	-	National Institute for Agricultural Research (France)
INSU	-	Institut National des Sciences de l'Univers (France)
INTA	-	Instituto Nacional de Técnica Aeroespacial (Spain)
IOC	-	Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization
IPEV	-	French Polar Institute
IRD	-	Institut de Recherche pour le Développement (France)
IRMB	-	Insitut Royal Météorologique de Belgique (Belgium)

ISRO	-	Indian Space Research Organization
ITCF	-	Institut Technique des Céréales et des Fourrages (France)
ITU	-	International Telecommunication Union
JAXA	-	Japan Aerospace Exploration Agency
LAPAN		National Institute for Aeronautics and Space (Indonesia)
LOA	-	Laboratoire d'Optique Appliquée (France)
LPCE	-	Laboratory of Physics and Chemistry of the Environment (France)
MEDES	-	Institute for Space Medicine and Physiology (France)
MPG	-	Media Planning Group
MSI	-	Micro Star International
NASA	-	National Aeronautics and Space Administration (USA)
NCMR	-	National Centre for Marine Research
NERSC	-	Nansen environmental and remote sensing centre
NOAA	-	National Oceanic and Atmospheric Administration (USA)
ONF	-	Office National des Forêts (France)
OOSA	-	United Nations Office for Outer Space Affairs
SHOM	-	Service Hydrographique et Océanographique de la Marine (France)
SOS	-	Simulation Optimization Systems
SNSB	-	Swedish National Space Board
SSTL	-	Surrey Satellite Technology Ltd. (UK)
ST	-	Sciences de la Terre (France)
SUPARCO	-	Space and Upper Atmosphere Research Commission (Pakistan)
UNDP	-	United Nations Development Programme
UNEP		United Nations Environment Programme
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
UNGIWG	-	United Nations Geographic Information Working Group
UNHCR	-	United Nations High Commissioner for Refugees
UNICEF	-	United Nations Children's Fund

UNITAR	-	United Nations Institute for Training and Research
UNOPS	-	United Nations Office for Project Services
WAPDA	-	Water and Power Development Authority (Pakistan)
WFP	-	United Nations World Food Programme
WHO	-	World Health Organization
WMO	-	World Meteorological Organization
WRC	-	World Radiation Centre (Switzerland)
WWF	-	World Wildlife Fund

II. List of space-related activities that respond to the outcomes of the World Summit on Sustainable Development

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	II. Poverty eradication				
7(f)	Deliver basic health services for all and reduce environmental health threats, taking into account the special needs of children and the linkages between poverty, health and environment, with provision of financial resources, technical assistance and knowledge transfer to developing countries and countries with economies in transition	Remote Sensing (RS) and geographical information systems (GIS), global navigation satellite systems (GNSS), satellite communications for tele-health	CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute (France), INRA, CEA	Teleconsultation programme in Guyana and the Arctic on board airline-operated aircraft	
				Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. "Projet S2E migrants": space surveillance of epidemics introduced by migrating birds. Data collection using Argos beacons	
			Communications and systems satellites, Praxim -CNES (France)	Surgical multimedia maintenance and assistance service (SMMAC)	
			ELTE Geophysics Department (Hungary)	Yielding estimations and observations of vegetative cover	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			SUPARCO, Federal/Provincial Ministries of Health, UNICEF/WHO	SUPARCO is planning to facilitate by connecting big hospitals in Pakistan with health facilities in the rural areas.	
7(g)	Ensure that children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and will have equal access to all levels of education	Satellite communications for tele-education	CNES, French, Indian and Tunisian universities and ministries of education and research	Satel-IT project French Medical Virtual University French-Indian Cyber-University in Sciences (FICUS)	
			UNESCO, CNDP, CNES	European Distance Education Network (EDEN)	
			CRDP, ENSG, ESRI France, Cartosphere, Afigeo (France)	GEWED project, web site providing geographical data and GIS for teachers, trainers and students	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
				ESCAP-APSCC meeting on cooperation on satellite broadband services and applications, March, 2003, Bangkok, Thailand	
			SUPARCO, Federal/Provincial Ministries of Education, UNICEF	SUPARCO is planning to facilitate by connecting Universities/Vocational Training Centers in Pakistan with Boys and Girls Schools/Colleges in the rural areas.	

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7(j)	Transfer basic sustainable agricultural techniques and knowledge, including natural resource management, to small and medium-scale farmers, fishers and the rural poor, especially in developing countries, including through multi-stakeholder approaches and public-private partnerships aimed at increasing agriculture production and food security	RS, GIS and GNSS for natural resources management (land, fish)	MétéoFrance – CETP – GEOSYS - AFEID	CITRAM irrigation advisory project. Irrigation management, soil water determination.	
			INRA - CNRM - Météo-France-Astrium-SCOT (Satellite Communications on Board Terminal) (France)	APOGEE project for land use planning assistance at regional level.	
			Astrium – INRA - GEOSYS (France)	AGROCOM project for optimum maize cultivation.	
			ITCF – GEOSYS (France), Ministry of Research and New Technologies (France)	SADAISI project, access by farmers to satellite images direct from the Internet.	
			CIRAD - AMIS - SPOT Image (France)	SUCRETTE project: sugar cane remote sensing monitoring system.	
			CNES, Astrium, SCOT (France)	FARMSTAR, providing advice on optimum crop management through intra-plot variability (precision agriculture).	
			CNES, Bayer (France)	Crop Vision Project for precision agriculture.	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
				Ad hoc Expert Group Meeting on Policies for promoting and Integration of Space Applications for Poverty Alleviation, August 2003, Bangkok, Thailand	
7(l)	Combat desertification and mitigate the effects of drought and floods through measures such as improved use of climate and weather information and forecasts, early warning systems, land and natural resource management, agricultural practices and ecosystem conservation in order to reverse current trends and minimize degradation of land and water resources, including through the provision of adequate and predictable financial resources to implement the United Nations Convention to Combat	RS and GIS, meteorological satellites for mitigation of the effects of drought and floods	SUPARCO, Agriculture Deptt., Sindh Forest Deptt.	Use of modern technology for monitoring and pre harvest assessment of crops. Baseline study of Kacho areas of Sindh for uplift and Development	
			ELTE Geophysics Department (Hungary)	Satellite data processing (HRPT)	
			Hungarian Meteorological Service	Flood forecasting and management	
			CNES and Belgian, Swedish and Italian space agencies and the European Commission	SPOT vegetation instrument for observation of crops and continental biosphere	
			Ministry of Research and New Technologies (France), Alcatel Space, Astrium, Cemagref, MétéoFrance, BRGM (France), IMFT, MSI, SCOT, SPOT Image, Adage (France)	PACTES project: flood prediction and prevention using space technology	

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	Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa, as one of the tools for poverty eradication;		FAO	Global Information and Early Warning System (GIEWS), which uses the Advanced Real Time Environmental Monitoring Information System (ARTEMIS)	http://www.fao.org/giews/english/index.htm , http://geoweb.fao.org
				Southern African Development Community (SADC) Regional Remote Sensing Unit with the use of ARTEMIS	www.sadc.int , http://metart.fao.org
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
				Study on the framework of regional cooperative mechanisms supporting disaster management using space technology	
			UNESCO	Cross-cutting project “Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa”	http://ioc.unesco.org/goos/africa/cross-cutting.htm
				IOC’s “Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa” (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICAPROject2003.doc
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/homs/1stpage.html
				World Climate Programme	http://www.wmo.ch/web/wcp/wcp-home.html
			SUPARCO, Agriculture deptt.	Applications of Earth Observation Satellite and Meteorological satellite data	
8	... we agree to halve, by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water (as outlined in the Millennium Declaration)...	RS and GIS for water resources management	BRGM, CLS, AETS, Ministry of Research and New Technologies (France)	RESSOURCE: Project to use space telecommunications for water data collection.	
			ASI	COSMO-SkyMed Programme for monitoring and managing marine and inland waters. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNESCO	Cross-cutting project “Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa”	http://ioc.unesco.org/goos/africa/cross-cutting.htm

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				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICAPROject2003.doc
			SUPARCO	Identification of surface water resources and their conservation through SRS data.	
20	Promote an integrated approach to policy-making at the national, regional and local levels To promote sustainable development, including policies and planning for land use, infrastructure, public transport systems and goods delivery networks.... limiting urban sprawl, taking into account national priorities and circumstances.	RS and GIS for integrated land and resource management/ Study on Earth Observation Applications for Sustainable Development	ESA and Geoville (Austria)	Project in support for the Water Framework Directive and the Soil Protection Initiative.	
	IV. Protecting and managing the natural resource base of economic and social development				
	<i>- Water management -</i>				
25(c)	Promote priority action by Governments, with the support of all stakeholders, in water management and capacity-building at the national level and, where appropriate, at the regional level, and promote and provide new and additional financial resources and innovative technologies to implement chapter 18 of Agenda 21	RS and GIS for water resources assessment and water management	ESA Funded projects by Verbundplan GmbH, Austrian Research Centers and IMG I – Innsbruck (Austria)	Study Report on "International treaties, agreements and programmes relevant to non-scientific application of satellite based hydrological data"	
			BRGM, CLS, AETS, Ministry of Research and New Technologies (France)	RESSOURCE: Project to use space telecommunications for water data collection	
			JAXA, GISTDA and LAPAN	Asia-Pacific Pilot Project	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO	Global Information and Early Warning System (GIEWS), which uses the Advanced Real Time Environmental Monitoring Information System (ARTEMIS)	http://www.fao.org/giews/english/index.htm , http://geoweb.fao.org
				Southern African Development Community (SADC) Regional Remote Sensing Unit with the use of ARTEMIS	http://metart.fao.org , http://www.sadc.int/
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org

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			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/homs/1stpage.html
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
				Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
			SUPARCO/WAPDA, Irrigation Deptt., Government of Pakistan	SRS applications program for water resources and collaboration with other organizations.	
25(d)	Intensify water pollution prevention to reduce health hazards and protect ecosystems by introducing technologies for affordable sanitation and industrial and domestic wastewater treatment, by mitigating the effects of groundwater contamination and by establishing, at the national level, monitoring systems and effective legal frameworks	RS and GIS for water pollution monitoring systems	ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICAPROject2003.doc
26.	Develop integrated water resources management and water efficiency plans by 2005, with support to developing countries.	RS/GIS and GNSS for evaluation of water resources and data collection	DESA	Satellite imagery and GPS are used to evaluate water resources potential and carry out data collection	
			UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
26(a)	Develop and implement national/regional strategies, plans and programmes with regard to integrated river basin, watershed and groundwater management and introduce measures to improve the efficiency of water resources management	RS and GIS for integrated river basin watershed and groundwater management	BRGM, CLS, AETS, Ministry of Research and New Technologies (France)	RESSOURCE: Project to use space telecommunications for water data collection	
			ELTE Geophysics Department (Hungary)	Research of river-basin Tisza	

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	efficiency of water infrastructure to reduce losses and increase recycling of water		ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
				Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
			SUPARCO/WAPDA	Snow Cover Estimation and runoff Assessment in INDUS river Basin Using SRS/GIS data.	
26(b)	Employ the full range of policy instruments, including regulation, monitoring, voluntary measures, market and information-based tools, land-use management and cost recovery of water services, without cost recovery objectives becoming a barrier to access to safe water by poor people, and adopt an integrated water basin approach	RS and GIS for monitoring and information gathering for decision-making	BRGM, CLS, AETS, Ministry of Research and New Technologies (France)	RESSOURCE: Project to use space telecommunications for water data collection	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
				Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
26(d)	Develop programmes for mitigating the effects of extreme water-related events	RS and GIS for preventing and mitigating effects of extreme water-related events	EADS, Astrium, Alcatel Space, MétéoFrance, Cemagref, BRGM, SPOT Image, SCOT, MSI, Sertit Irit, IMFT, Ministry of Research and New Technologies (France)	PACTES project: flood prediction and prevention using space technology	

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			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO	Global Information and Early Warning System (GIEWS), which uses the Advanced Real Time Environmental Monitoring Information System (ARTEMIS)	http://www.fao.org/giews/english/index.htm , http://geoweb.fao.org
				Southern African Development Community (SADC) Regional Remote Sensing Unit with the use of ARTEMIS	http://metart.fao.org , www.sadc.int
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/wcp/wcp-home.html
				Natural Disaster Prevention and Mitigation Programme	
			OOSA, UNOPS	Serving the UN with satellite imagery and value adding products through International Charter "Space and Major Disasters"	www.unosat.org , www.disasterscharter.org
			UNOPS	Global Mapping Grant Facility	www.unosat.org
			SUPARCO	Development of GIS database of floods using SRS data pertaining to the past 20 years	
		RS and GIS information as decision making tools for policy makers and managers	UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm

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		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICAPROject2003.doc
27	Support developing countries and countries with economies in transition in their efforts to monitor and assess the quantity and quality of water resources, including through the establishment and/or further development of national monitoring networks and water resources databases and the development of relevant national indicators.	RS and GIS for water resources monitoring and assessment	National Agency for Water Resources (ANRH) (Algeria)	Study of soil resources by remote sensing	
			ESA and Geoville (Austria)	Technical study analyzing the progress in EO from Rio Earth Conference to the WSSD in Johannesburg.	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO	Global Information and Early Warning System (GIEWS), which uses the Advanced Real Time Environmental Monitoring Information System (ARTEMIS)	http://www.fao.org/giews/english/index.htm , http://geoweb.fao.org
				Southern African Development Community (SADC) Regional Remote Sensing Unit with the use of ARTEMIS	http://metart.fao.org , http://www.sadc.int/
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/wcp/wcp-home.html
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
				Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm

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				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICAProject2003.doc
28.	Improve water resource management and scientific understanding of the water cycle through cooperation in joint observation and research, and for this purpose encourage and promote knowledge-sharing and provide capacity-building and the transfer of technology, as mutually agreed, including <u>remote-sensing and satellite technologies</u> , particularly to developing countries and countries with economies in transition.	RS and GIS for water resource management and scientific understanding of the water cycle	Australia's Department of the Environment and Heritage (DEH)	Various initiatives that use Earth observing remote sensing and GIS data analysis	http://www.deh.gov.au/
			CNES - ISRO	Mégha-Tropique project for water studies	
			CNES – ESA – CDPI (France)	Surface Meteorological Observation System (SMOS) for global observation of land surface humidity and ocean salinity. Climate forecasting	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO	Global Information and Early Warning System (GIEWS), which uses the Advanced Real Time Environmental Monitoring Information System (ARTEMIS)	http://www.fao.org/giews/english/index.htm , http://geoweb.fao.org
				Southern African Development Community (SADC) Regional Remote Sensing Unit with the use of ARTEMIS	http://metart.fao.org , http://www.sadc.int/
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/homs/hwrpframes.html
				WMO Space Programme	http://www.wmo.ch/index-en.html
			UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	- Coastal area management -				
30(b)	Promote the implementation of chapter 17 of Agenda 21, which provides the programme of action for achieving the sustainable development of oceans, coastal areas and seas through its programme areas of integrated management and sustainable development of coastal areas, including exclusive economic zones	RS and GIS for integrated management of coastal areas and marine resources	Ministry for Regional Planning and the Environment (Algeria)	Mapping of development indicators by remote sensing. Blue Plan	
			CLS, IRD, Thales, SODENA, Ministry of Research and New Technologies (France)	Integrated fish stock resource management aid service (SEAGERH)	
			CLS (France)	Argos beacon applications	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO, Forest Deptt. Govt. of Pakistan	SRS applications Program for oceanographic studies including development of coastal areas, etc.	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.htm 1
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
30(e)	Promote integrated, multidisciplinary and multisectoral coastal and ocean management at the national level and encourage and assist coastal States in developing ocean policies and mechanisms on integrated coastal management	RS and GIS for integrated coastal management	BRGM, BRLI, CNES, CIRAD, Ifremer, SCOT, Ministry of Research and New Technologies (France)	AGIL project for integrated coastal management. Development of services	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			SUPARCO, NGOs, Forest Deptt. Govt. of Pakistan.	Use of SRS data and GIS for monitoring and managing coastal resources	
			ESCAP	Regional Space Application Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/ SPACE/resap/resap_main.asp
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS -AFRICA.htm
31(d)	Urgently develop and implement national and, where appropriate, regional plans of action, to put into effect the international plans of action of the Food and Agriculture Organization of the United Nations, in particular the International Plan of Action for the Management of Fishing Capacity ³ by 2005 and the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing by 2004. Establish effective monitoring, reporting and enforcement, and control of fishing vessels, including by flag States, to further the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing	RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	SPOT Image, IRD, Ifremer, Ministry of Research and New Technologies (France)	IBIS for tracking of vessels	
			ESA/EU	Galileo and satellite navigation applications	
			CLS	Data collection with Argos beacons	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS -AFRICA.htm

³ Rome, Food and Agriculture Organization of the United Nations, 1999.

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
35	Governments, taking into account their national circumstances, are encouraged, recalling paragraph 8 of resolution GC (44)/RES/17 of the General Conference of the International Atomic Energy Agency, and taking into account the very serious potential for environment and human health impacts of radioactive wastes, to make efforts to examine and further improve measures and internationally agreed regulations regarding safety, while stressing the importance of having effective liability mechanisms in place, relevant to international maritime transportation and other transboundary movement of radioactive material, radioactive waste and spent fuel, including, inter alia, arrangements for prior notification and consultations done in accordance with relevant international instruments	Work of the Scientific and Technical Subcommittee of COPUOS in the use of nuclear sources in outer space	ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The programme can also be used for intelligence applications for strategic purposes. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESA and Geoville (Austria)	Technical study analyzing the progress in EO from Rio Earth Conference to the WSSD in Johannesburg.	
36.	World Summit on Sustainable Development – Plan of Implementation – specific references to Earth Observation	Study on Earth Observation Applications for Sustainable Development	ESA and Geoville (Austria)	Project in support for the Water Framework Directive and the Soil Protection Initiative	
			ASI	COSMO-SkyMed Programme for scientific applications. The Programme is to start operating in 2007 and reach full capacity in 2008.	
36(a)	Increase scientific and technical collaboration, including integrated assessment at the global and regional levels, including the appropriate transfer of marine science and marine technologies and techniques for the conservation and management of living and non-living marine resources and expanding ocean-observing capabilities for the timely prediction and assessment of the state of marine environment	RS to monitor ocean	CNES - NASA	TOPEX-Poseidon for altimetric measurements (ocean circulation, etc.)	
				Jason-1 for global altimetric measurements of the oceans, following TOPEX-Poseidon. General meteorology and climate understanding.	
			CNES – MétéoFrance - IRD - SHOM	MERCATOR for ocean simulation on the basis of satellite observation; climate forecasting	
			CNES-ESA-CDPI (France)	Surface Meteorological Observation System (SMOS) for global observation of land surface humidity and ocean salinity; climate forecasting	
			CNES – CNRS – IRD – IPEV – Ifremer – MétéoFrance - SHOM	France's participation in the Global Ocean Observing System (GOOS) using CORIOLIS and MERCATOR	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme can also be used for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Application Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Applications of Meteorology Programme	http://www.wmo.ch/web/aom/aom.html
			UNESCO	IOC's Global Ocean Observing System (GOOS) Regional Alliances	http://ioc.unesco.org/iocweb/index.php
			UNESCO, WMO, UNEP	Intergovernmental Oceanographic Commission's (IOC) Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	
36(c)	Build capacity in marine science, information and management, through, inter alia, promoting the use of environmental impact assessments and environmental evaluation and reporting techniques, for projects or activities that are potentially harmful to the coastal and marine environments and their living and non-living resources	RS for marine management	Thales, SODENA, IRD, CLS, Ministry of Research and New Technologies (France)	SEAGERH project	
			CLS	Data collection using Argos beacons	
			BRGM – BRLI – CNES – CIRAD – Ifremer - SCOT (France)	AGIL project for integrated coastal management	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme can also be used for scientific applications. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNESCO	Intergovernmental Oceanographic Commission's (IOC) Ocean Data and Information (ODIN) for Africa, the Caribbean and South America	http://ioc.unesco.org/iocweb/index.php
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
36(d)	Strengthen the ability of the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization, the Food and Agriculture Organization of the United Nations and other relevant international and regional and subregional organizations to build national and local capacity in marine science and the sustainable management of oceans and their resources	RS for marine science and sustainable management of oceans and their resources	CNES-CNRS-IRD-IPEV-Ifremer-MétéoFrance-SHOM	France's participation in the GOOS project with CORIOLIS and MERCATOR	
			WMO	Applications of Meteorology Programme	http://www.wmo.ch/web/aom/aom.html
			UNESCO	All Intergovernmental Oceanographic Commission's (IOC) programmes, including the Integrated Coastal Area Management (ICAM), Global Observing System (GOS) and International Oceanographic Data and Information Exchange (IODE) programmes, with the use RS data	http://ioc.unesco.org/iocweb/index.php
			SUPARCO, NGOs	Monitoring Coastal ecosystem and marine envt. through SRS technology.	
	- Disaster management -				
37(b)	Support the establishment of effective regional, subregional and national strategies and scientific and technical institutional support for disaster management	RS and GIS, satellite communications, GNSS for disaster management	BMVIT – Austrian Federal Ministry for Transport, Innovation and Technology	Disaster Management – Elaboration of an Austrian Action plan for the implementation of the International Charter for Space and Natural Disasters	
			CSA, CNES, CONAE, ESA, JAXA, NOAA, ISRO	International Charter “Space and Major Disasters”	
			EADS Astrium, CS-SI, CEREN, CNES, FDC, MétéoFrance, PONT Intervention, SCOT, French Ministry of Research and New Technologies (France)	PARAFEU to combat forest fires	
			EADS Astrium, Alcatel Space, MétéoFrance, Cemagref, BRGM, SPOT Image, SCOT, MSI, Sertit Irit, IMFT, Ministry of Research and New Technologies (France)	PACTES: flood prediction and prevention using space technology	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			Federal Government of Mexico/ Aragón Technology Centre at the National Autonomous University of Mexico	Possible nanosatellite project of focusing on earthquake prediction through the analysis of electrical and electromagnetic precursors which appear in the atmosphere in the days leading up to a powerful earthquake. Inter-institutional meeting to assess the need for a comprehensive policy on space matters at the federal level, 1 December, Tlatelolco, Federal District.	
			OOSA	Space technology and disaster management (STDM)	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			WMO	Natural Disaster Prevention and Mitigation Programme	
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models	UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	www.unosat.org
			UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
			Atmospheric Research using Space Technology for disaster management	SUPARCO/ISNET (OIC's Space Technology Network/OOSA)	Training in Space Technology and Disaster Management Program (STDM) is being organized by the OIC Countries
37(c)	Strengthen the institutional capacities of countries and promote international joint observation and research, through improved surface-based monitoring and increased use of satellite data, dissemination of technical and scientific knowledge, and the provision of assistance to vulnerable countries	RS and GIS for joint observation and research	CNES – ESA – NASA – LPCE – CETP – MPG	DEMETER (Detection of Electro-Magnetic Emissions Transmitted from Earthquake Regions)	
			CNES-CNRS, supported by IRMB and WRC	PICARD for determining solar forcing influence on Earth climate	
			ELTE Geophysics Department (Hungary)	Satellite data processing	
			ASI	COSMO-SkyMed Programme for scientific applications. The Programme is to start operating in 2007 and reach full capacity in 2008.	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			Federal Government of Mexico/ Aragón Technology Centre at the National Autonomous University of Mexico	Possible nanosatellite project of focusing on earthquake prediction through the analysis of electrical and electromagnetic precursors which appear in the atmosphere in the days leading up to a powerful earthquake. Inter-institutional meeting to assess the need for a comprehensive policy on space matters at the federal level, 1 December, Tlatelolco, Federal District.	http://www.oosa.unvienna.org/sapidx.html oosa@unvienna.org
			OOSA	Space Technology and Disaster Management (STDM) Regional Centres for Space Science and Technology Education	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	www.unosat.org
	RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO		IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
	RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models	UNESCO		Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm

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Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
		Atmospheric Research using Space Technology for Post Disaster Management	SUPARCO/ISNET (OIC's Space Technology Network/OOSA)	Institutional capabilities of Islamic countries is being strengthened using Space Technology and Disaster Management Program (STDM)	
37(d)	Reduce the risks of flooding and drought in vulnerable countries by, inter alia, promoting wetland and watershed protection and restoration, improved land-use planning, improving and applying more widely techniques and methodologies for assessing the potential adverse effects of climate change on wetlands and, as appropriate, assisting countries that are particularly vulnerable to those effects	RS and GIS for improved land use planning	Alcatel Space Industries (ASPI), Astrium, MétéoFrance, Cemagref, BRGM, SPOT Image, SCOT, MSI, Sertit Irit, IMFT, Ministry of Research and New Technologies (France)	PACTES	
			ELTE Geophysics Department (Hungary)	Research of river-basin Tisza	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			OOSA	Space Technology and Disaster Management (STDM)	http://www.oosa.unvienna.org/sapidx.html oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/homs/1stpage.html
				Natural Disaster Prevention and Mitigation Programme	
			UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	www.unosat.org
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
		Atmospheric Research using Space Technology for disaster management	Pakistan Meteorological Deptt., WAPDA	Under Space Technology and Disaster Management Program (STDMP), Early Warning of these phenomena are conducted.	
37(e)	Improve techniques and methodologies for assessing the effects of climate change, and encourage the continuing assessment of those adverse effects by the Intergovernmental Panel on Climate Change	RS for assessment of the effects of climate change	CNES - NASA	TOPEX-Poseidon and the DORIS instrument for altimetric measurements (ocean circulation, etc.)	
				Jason-1 and the DORIS instrument for global altimetric measurements of the oceans, following TOPEX-Poseidon. General meteorology and climate understanding	
			CNES – MétéoFrance - IRD - SHOM	MERCATOR for ocean simulation on the basis of satellite observation for climate forecasting	
			CNES - CNRS, supported by IRMB and WRC	PICARD to determine solar forcing influence on Earth climate	
			CNES	PARASOL to determine influence of radiative impact of clouds and aerosols on climate change	
			CNES - NASA	Cloud-Aerosol Lidar and Infrared Pathfinder Satellite (CALIPSO) study on radiative impact of clouds and aerosols on understanding of climate systems and global change	
			CNES – ESA – CDPI	SMOS for global observation of land surface humidity and ocean salinity; climate forecasting	
			CNES - CLS	SALP production, archiving and distribution of TOPEX-Poseidon, Jason, DORIS and ENVISAT mission products	
			CNES, the Belgian, Swedish and Italian space stations and the European Commission	VEGETATION instrument for crop and continental biosphere observation	
			CNES for DORIS and ESA for the ENVISAT satellite	DORIS instrument on ENVISAT	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The programme can also perform monitoring of ice and ecology. The Programme is to start operating in 2007 and reach full capacity in 2008.	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			OOSA	Space Technology and Disaster Management (STDM)	http://www.oosa.unvienna.org/sapidx.html oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			WMO	World Climate Programme	http://www.wmo.ch/web/wcp/wcp_prog.htm
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
37(h)	Develop and strengthen early warning systems and information networks in disaster management, consistent with the International Strategy for Disaster Reduction	RS and satellite communications for early warning	SUPARCO, Pakistan Meteorological Deptt.	Global Monitoring of various Atmospheric parameters are regularly monitored under Space Technology and Disaster Management Programme (STDM)	
			CSA, CNES, CONAE, ESA, JAXA, NOAA, ISRO	International Charter "Space and Major Disasters"	
			Hungarian Meteorological Service	Flood forecasting and management	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO	Global Information and Early Warning System (GIEWS), which uses the Advanced Real Time Environmental Monitoring Information System (ARTEMIS)	http://www.fao.org/giews/english/index.htm, http://geoweb.fao.org
				Southern African Development Community (SADC) Regional Remote Sensing Unit with the use of ARTEMIS	http://metart.fao.org, www.sadc.int
			OOSA	Space Technology and Disaster Management (STDM)	http://www.oosa.unvienna.org/sapidx.html oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Natural Disaster Prevention and Mitigation Programme	
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
		Atmospheric Research/Monitoring for Early Warning.	SUPARCO/OOSA/WMO	Early Warning on a predicted disaster is publicized through SUPARCO's Web Site, and Media.	
37(i)	Develop and strengthen capacity at all levels to collect and disseminate scientific and technical information, including the improvement of early warning systems for predicting extreme weather events, especially El Niño/La Niña, through the provision of assistance to institutions devoted to addressing such events, including the International Centre for the Study of the El Niño phenomenon	RS, GNSS and satellite communications for early warning	CSA, CNES, CONAE, ESA, JAXA, NOAA, ISRO	International Charter "Space and Major Disasters"	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			OOSA	Space Technology and Disaster Management (STDM)	http://www.oosa.unvienna.org/sapidx.html
				Regional Centres for Space Science and Technology Education	oosa@unvienna.org
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.htm
			OOSA, UNOPS	Serving the UN with satellite imagery and value adding products through the International Charter "Space and Major Disasters"	www.unosat.org , www.disasterscharter.org

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
		RS and GIS information as decision making tools for policy makers and managers; development of early warning systems for Africa	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
37(j)	Promote cooperation for the prevention and mitigation of, preparedness for, response to and recovery from major technological and other disasters with an adverse impact on the environment in order to enhance the capabilities of affected countries to cope with such situations.	RS, satellite communications, GNSS for prevention, mitigation, preparedness, response and recovery	CSA, CNES, CONAE, ESA, JAXA, NOAA, ISRO	International Charter "Space and Major Disasters"	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			OOSA	Space Technology and Disaster Management (STDM)	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Natural Disaster Prevention and Mitigation Programme	
		Atmospheric Research using Space Technology for disaster management	SUPARCO/ISNET (OIC's Space Technology Network) OOSA	The stake holders from regional countries are trained on the subject under a collaboration program	
	- Climate change -				
38(d)	Build and enhance scientific and technological capabilities, inter alia, through continuing support to the Intergovernmental Panel on Climate Change for the exchange of scientific data and information especially in developing countries	Earth observation (EO) satellites and satellite communications for exchange of scientific data and information	CNES – CNRS - INSU	ETHER database on atmospheric chemistry	
			CNES – CLS – MétéoFrance – SHOM - CERFACS	AVISO ocean, altimetry and climate database	
			CNES – MétéoFrance – IRD - SHOM	MERCATOR for ocean simulation on the basis of satellite observation; climate forecasting	
			Hungarian Meteorological Service	Research of climate change (NOAA data)	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org

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Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			WMO	World Climate Programme	http://www.wmo.ch/web/wcp/wcp_prog.htm
			SUPARCO, Ministry of Environment	Preparation of inventory of green house gases as per the guidelines available in IPCC. Land /atmosphere studies using MODIS / ENVISAT data.	
		RS and GIS information as decision making tools for policy makers and managers; development of early warning systems for Africa	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
38(g)	Promote the systematic observation of the Earth's atmosphere, land and oceans by improving monitoring stations, increasing the use of satellites and appropriate integration of these observations to produce high-quality data that could be disseminated for the use of all countries, in particular developing countries	EO satellites for systematic observation of Earth's atmosphere, land and oceans	CNES – ESA - CDPI	SMOS for global observation of surface humidity of land and salinity of oceans; climate forecasting	
			CNES – ESA – NASA – LPCE – CETP – MPG	DEMETER for measuring geophysical parameters of the terrestrial ionosphere affecting earthquakes or volcanic activity	
			CNES – NASA	CALIPSO study of radiative impact of clouds and aerosols on understanding of climate systems and global change	
			CNES – ISRO	Megha-Tropiques for study of atmospheric water cycle in the intertropical band	
			CNES – EUMETSAT	Infrared atmospheric sounding interferometer (IASI) instrument of the METOP satellites for spectral analysis of the atmosphere and its chemical composition	
			ESA - Alcatel Space – Ifremer – MétéoFrance - MERCATOR-Ocean - CLS and DNV – NERSC – GTD – Starlab – NCMR – ESYS - SOS	Global Monitoring for Environment and Security (GMES) and Real Time Ocean Services for Environment and Security (ROSES) project	
			CNES-SPOT Image, supported by Belgium and Sweden	SPOT satellites	
			Alcatel Space - ESA	Medium Resolution Imaging Spectrometer (MERIS) instrument on ENVISAT for study of biosphere	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			CNES - NASA	TOPEX-Poseidon for altimetric measurements (ocean circulation etc.)	
				Jason-1 for global altimetric measurements of the oceans, following TOPEX-Poseidon. General meteorology and climate understanding	
			CNES – ASI – INTA - BNRS	Optical and radar federated Earth observation (ORFEO) system	
			CNES - CNRS supported by WRC and IRMB	PICARD to determine solar forcing influence on Earth climate	
			CNES	PARASOL to determine influence of radiative impact of clouds and aerosols on climate change	
			Hungarian Meteorological Service	Agricultural surface physical parameters research	
			JAXA	Advanced Land Observing Satellite (ALOS)	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	SGS and its upgrading for high-quality EO data.	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNESCO, WMO, UNEP	IOC - the Global Ocean Observing System (GOOS)	http://ioc.unesco.org/iocweb/index.php
38(h)	Enhance the implementation of national, regional and international strategies to monitor the Earth's atmosphere, land and oceans, including, as appropriate, strategies for integrated global observations, inter alia, with the cooperation of relevant international	EO satellites for integrated global observations	Algerian Space Agency, SSTL	Disaster Monitoring Constellation Consortium DMC	
			ESA - EU	GMES European concept	
			Spot Image	SPOT series satellites	
			ASI – CNES – INTA - SNSB	ORFEO project	
			Hungarian Meteorological Service	Agricultural surface physical parameters research	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	organizations, especially the specialized agencies, in cooperation with the United Nations Framework Convention on Climate Change		ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	SRS/GIS applications program in different discipline areas.	
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNESCO	IOC's regional programme in the Caribbean (IOCARIBE), Western Pacific (WESTPAC)	http://ioc.unesco.org/iocweb/index.php
			UNESCO, WMO, UNEP	GOOS Regional Alliances, including those for Africa, Black Sea, Mediterranean, Caribbean, Indian ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
39(a)	Strengthen capacities of developing countries and countries with economies in transition to measure, reduce and assess the impacts of air pollution, including health impacts, and provide financial and technical support for these activities	RS for measurement of air pollution	CNES - MétéoFrance and French laboratories	PARASOL project to measure the radiative impact of aerosols on Earth	
			ACRI – ST – IPSL – MétéoFrance – LOA - Ministry of Research and New Technologies (France)	Ultraviolet Forecasting Operational Service (UFOS) for exploitation of stratospheric ozone measurements, cloud cover and atmospheric aerosol content, by ENVISAT (MERIS and Global Ozone Monitoring by Occultation of Stars (GOMOS))	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	Air pollution monitoring using ground based equipment is regularly conducted (ESA & ENVISAT Data are helpful in such monitoring).	
			WMO	Atmospheric Research and Environment Programme	http://www.wmo.ch/web/arep/arep-home.html
39(c)	Further support the effective regime for the protection of the ozone layer established in the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol, including its compliance mechanism	EO satellites for monitoring ozone layer and verifying compliance with the Montreal Protocol	French, Belgian and Swedish space agencies and laboratories	Odin atmospheric mission to investigate atmospheric chemistry	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO, Ministry of Env't.	Monitoring trend of ozone in the Asian region using TOMS / GOME data	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			WMO	Atmospheric Research and Environment Programme	http://www.wmo.ch/web/arep/arep-home.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
	- Agriculture -				
40(b)	Develop and implement integrated land management and water-use plans that are based on sustainable use of renewable resources and on integrated assessments of socio-economic and environmental potentials and strengthen the capacity of Governments, local authorities and communities to monitor and manage the quantity and quality of land and water resources	RS and GIS for management of land and water resources	MétéoFrance – CETF – GEOSYS – AFEID	CITRAM irrigation advisory project. Irrigation management, soil water determination	
			INRA – CNRM – MétéoFrance – Astrium – SCOT	APOGEE project for land use planning assistance at regional level	
			CIRAD – IGN - ministries of the environment of the relevant countries, Ministry of Research and New Technologies (France)	SHERPA hydrological and environmental monitoring project for Central America	
			ITCF – GEOSYS – Ministry of Research and New Technologies (France)	SADAISI project, access by farmers to satellite images directly from the Internet	
			CIRAD – AMIS – Spot Image	SUCRETTE project: sugar cane teledetection monitoring system	
			Animation and graphic portfolio manager (AGPM) Technique – INRA – GEOSYS - Vivadour, Ministry of Research and New Technologies (France)	AGROCOM project for optimum maize cultivation	
			ESA - EU	Applications of the Galileo European satellite navigation system for precision agriculture	
			ASI	COSMO-SkyMed Programme for monitoring and managing forestry and agriculture. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	SRS Applications program	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			FAO	AsiaCover	www.asiacover.org
				AgrometShell (AMS)	
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			WMO	Applications of Meteorology Programme	http://www.wmo.ch/web/aom/aom.html

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos
			UNOPS, UNITAR	Activities in support to land and water management, capacity building and sustainable development	www.unosat.org
		GIS for integrated information management	16 UN organs, coordinated by WHO	Second Administrative Level Boundaries data set (SALB)	http://www3.who.int/whosis/gis/salb/salb_home.htm
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
40(c)	Increase understanding of the sustainable use, protection and management of water resources to advance long-term sustainability of freshwater, coastal and marine environments	RS and GIS for water resources management	BRGM, CLS, AETS, Ministry of Research and New Technologies (France)	RESSOURCE: Project to provide space telecommunications support for water data collection	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines and marine and inland waters, including ice monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	SRS/GIS based monitoring for conservation and preservation of fresh water resources.	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			FAO	AsiaCover	www.asiacover.org
			FAO, WFP, UNEP	Geonetwork	www.fao.org/geonetwork
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos
			UNESCO	IOC's uses of ocean based RS data to improve forecasts of rainfall in coastal areas; World Water Assessment Programme (WWAP)	http://ioc.unesco.org/iocweb/index.php

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
				Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
				World Water Assessment Programme (WWAP)	http://www.unesco.org/water/wwap/index.shtml
40(d)	Promote programmes to enhance in a sustainable manner the productivity of land and the efficient use of water resources in agriculture, forestry, wetlands, artisanal fisheries and aquaculture, especially through indigenous and local community-based approaches	RS and GIS to manage the use of water resources	BRGM, CLS, AETS, Ministry of Research and New Technologies (France)	RESSOURCE: Project to provide space telecommunications support for water data collection	
			ASI	COSMO-SkyMed Programme for monitoring and managing forestry and agriculture. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	SRS Applications program for natural resource monitoring	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			FAO	AsiaCover	www.asiacover.org
				AgrometShell (AMS)	
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos
				IOC's uses of ocean based RS data to improve forecasts of rainfall in coastal areas; World Water Assessment Programme (WWAP)	http://ioc.unesco.org/iocweb/index.php
			UNESCO	World Water Assessment Programme (WWAP)	http://www.unesco.org/water/wwap/index.shtml
40(j)	Reverse the declining trend in public sector finance for sustainable agriculture, provide appropriate technical and financial assistance, and promote private sector investment and support efforts in developing countries and countries with economies in transition to strengthen agricultural research and natural resource	GIS for integrated information management	16 UN organs, coordinated by WHO	Second Administrative Level Boundaries data set (SALB)	http://www3.who.int/whosis/gis/salb/salb_home.htm
		RS and GIS for natural resource management	BRGM, CLS, AETS, Ministry of Research and New Technologies (France)	RESSOURCE: Project to provide space telecommunications support for water data collection	
			ASI	COSMO-SkyMed Programme for monitoring and managing forestry and agriculture. The Programme is to start operating in 2007 and reach full capacity in 2008.	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	agricultural research and natural resource management capacity and dissemination of research results to the farming communities		SUPARCO, IUCN	SRS/GIS based pilot projects and country-wide applications of the current status of the inland and entire region.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
			FAO	AsiaCover	www.asiacover.org
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos
			UNOPS	Global Mapping Grant Facility	www.unosat.org
40(n)	Enhance international cooperation to combat the illicit cultivation of narcotic plants, taking into account their negative social, economic and environmental impacts	RS and GIS for monitoring illicit cultivation of narcotic plants	SUPARCO/ Narcotics Control Division, Govt. of Pakistan	Provision of RS data/ value added products to effectively control Narcotics Cultivation etc.	
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos
	- Desertification -				
41(a)	Mobilize adequate and predictable financial resources, transfer of technologies and capacity-building at all levels	EO satellites for monitoring desertification	SPOT Image	SPOT satellite vegetation instrument	
			ASI – CNES – INTA - SNSB	ORFEO project	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	Monitoring desertification using RS data	
			WMO	Technical Cooperation Programme	http://www.wmo.ch/web/tco/TCOHome.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos
41(b)	Formulate national action programmes to ensure timely and effective implementation of the Convention and its related projects, with the support of the international community, including through decentralized projects at the local level	EO satellites for monitoring desertification	SPOT Image	SPOT satellite vegetation instrument	
			ASI – CNES – INTA - SNSB	ORFEO project	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
41(d)	Integrate measures to prevent and combat desertification as well as to mitigate the effects of drought through relevant policies and programmes, such as land, water and forest management, agriculture, rural development, early warning systems, environment, energy, natural resources, health and education, and poverty eradication and sustainable development strategies	RS and GIS for land, water and forest management, early warning systems, environment monitoring and assessment	EADS – Geomatics – Cemagref – CESBIO – ONF - Media France, Ministry of Research and New Technologies (France)	METIS project on forest management and control	
			Hungarian Meteorological Service	Surface parameters – climate change modeling (ALADIN – HU)	
			ASI	COSMO-SkyMed Programme for ecological monitoring, monitoring and managing coastlines and marine and inland waters, including ice monitoring, and for monitoring and managing forestry and agriculture. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	RS Application Program	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Hydrology and Water Resources Management Programme	http://www.wmo.ch/web/homs/1stpage.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			UNESCO	World Water Assessment Programme (WWAP)	http://www.unesco.org/water/wwap/index.shtml
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project “Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa”	http://ioc.unesco.org/goos/africa/cross-cutting.htm
41(e)	Provide affordable local access to information to improve monitoring and	EO satellites and satellite	SPOT Image, Eutelsat	SPOT satellite, Eutelsat fleet	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	information to improve monitoring and early warning related to desertification and drought	satellite communications to improve monitoring and early warning	ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
41(g)	Improve the sustainability of grassland resources through strengthening management and law enforcement and providing financial and technical support by the international community to developing countries	RS for the management of grassland resources	ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
	- Mountain ecosystems -				
42(b)	Implement programmes to address, where appropriate, deforestation, erosion, land degradation, loss of biodiversity, disruption of water flows and retreat of glaciers	RS for monitoring deforestation, erosion, land degradation, loss of biodiversity, etc.	ASA and Austrian Federal Ministry for Transport, Innovation and Technology funded projects: JR, GEOSPACE, ENVEO (Austria)	"Management of Natural Resources in Alpine Regions by Advanced Remote Sensing Techniques", Project within the framework of the Austrian Space Application Programme	
			EADS – Geomatics – Cemagref – CESBIO – ONF - Media France, French Ministry of Research and New Technologies (France)	METIS project on forest management and control	
			ASI	COSMO-SkyMed Programme for ecological monitoring, monitoring and managing coastlines and marine and inland waters, including ice monitoring, and for monitoring and managing forestry and agriculture. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNESCO	Man and Biosphere (MAB) programme and its Biosphere Reserve Integrated Monitoring (BRIM) initiative	http://www.unesco.org/mab/index.htm
				Programme for Community Multimedia Centre	http://portal.unesco.org/ci/ev.php?URL_ID=1263&URL_DO=DO_TOPIC&URL_SECTION=201&reload=1075742490
				Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
42(d)	Implement programmes to promote diversification and traditional mountain economies, sustainable livelihoods and small-scale production systems, including specific training programmes and better access to national and international markets, communications and transport planning, taking into account the particular sensitivity of mountains	Satellite communications for better access to markets	UNESCO	Programme for Community Multimedia Centers Man and Biosphere (MAB) programme and its Biosphere Reserve Integrated Monitoring (BRIM) initiative	
	- Biodiversity-				
44(f)	Promote concrete international support and partnership for the conservation and sustainable use of biodiversity, including in ecosystems, at World Heritage sites and for the protection of endangered species, in particular through the appropriate channelling of financial resources and technology to developing countries and countries with economies in transition;	RS and GIS for monitoring biodiversity at World Heritage sites	CLS	Data collection using Argos beacons	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO, WWF	Conservation of precious wetland resources in the country through the integration of SRS/GIS databases.	
			UNESCO	Man and Biosphere (MAB) programme and its Biosphere Reserve Integrated Monitoring (BRIM) initiative	http://www.unesco.org/mab/index.htm
				Use of space technology for monitoring World Heritage sites	http://whc.unesco.org/nwhc/pages/home/pages/homepage.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project “Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa”	http://ioc.unesco.org/goos/africa/cross-cutting.htm
	- Forest management -				
45(f)	Create and strengthen partnerships and international cooperation to facilitate the provision of increased financial resources, the transfer of environmentally sound technologies, trade, capacity-building, forest law enforcement and governance at all levels and integrated land and resource management to implement sustainable forest management, including the proposals for action of the Intergovernmental Panel on Forests/Intergovernmental Forum on Forests	RS and GIS for integrated land and resource management	ASA, Austrian Federal Ministry for Transport, Innovation and Technology and European Space Agency (ESA) funded projects: GEOVILLE, ARCS and TU Wien – IPF (Austria)	“Testing of Novel Earth Observation Systems for Supporting Quality Control Activities required by the Kyoto-Protocol”	
				Acquisition of LULUCF3-Parameters (Land Use, Land Use Change and Forestry – LULUCF)	
				Project within the framework of the Austrian Space Application Programme	
				A GeoVille led Kyoto project focusing on LULUCF project activities funded by ESA-ESRIN	
			EADS – Geomatics – Cemagref – CESBIO – ONF - Media France, Ministry of Research and New Technologies (France)	METIS project on forest management and control	
			ASI	COSMO-SkyMed Programme for monitoring and managing forestry and agriculture. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO, Forestry department, Govt. of Pakistan	Detailed Forest Cover Mapping of Pakistan using High Resolution SPOT XS Data	
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			UNESCO	Man and Biosphere (MAB) programme and its Biosphere Reserve Integrated Monitoring (BRIM) initiative	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
				Cross-cutting project “Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa”	http://ioc.unesco.org/goos/africa/cross-cutting.htm
		GIS for integrated information management	16 UN organs, coordinated by WHO	Second Administrative Level Boundaries data set (SALB)	http://www3.who.int/whosis/gis/salb/salb_home.htm
	- Mining -				
46(c)	Foster sustainable mining practices through the provision of financial, technical and capacity-building support to developing countries and countries with economies in transition for the mining and processing of minerals, including small-scale mining, and, where possible and appropriate, improve value-added processing, upgrade scientific and technological information and reclaim and rehabilitate degraded sites	RS for detection and management of minerals	SUPARCO, Geological Survey of Pakistan UNESCO	Provision of relevant SRS data and consultation to government agencies. Mineral Resources Sustainability Programme (MRSD)	
	V. Sustainable development in a globalizing world				
47(c)	Enhance the capacities of developing countries, including the least developed countries, landlocked developing countries and small island developing States, to benefit from liberalized trade opportunities through international cooperation and measures aimed at improving productivity, commodity diversification and competitiveness, community-based entrepreneurial capacity and transportation and communication infrastructure development	Satellite communications for development of communications infrastructure			

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
52	Assist developing countries and countries with economies in transition in narrowing the digital divide, creating digital opportunities and harnessing the potential of information and communication technologies for development through technology transfer on mutually agreed terms and the provision of financial and technical support and, in this context, support the World Summit on the Information Society	Satellite communications for narrowing digital divide (Contributions to the World Summit on Information Society)	CNES, France Télécom, La Poste, Worldspace (France)	The France's stand at WSIS presenting projects for bridging the digital divide: "Communicating villages", La Poste and the Cyberkiosque, France Télécom on the theme of the Internet by satellite. Tele-education and telemedicine demonstration. Direct digital radio broadcasting via Worldspace to Africa and Asia	
			WMO	Technical Cooperation Programme	http://www.wmo.ch/web/tco/TCOHome.html
			ITU	E-Strategy Programme	
			UNOPS, UNITAR	UNOSAT web-portal and Grid data dissemination techniques	www.unosat.org
	VI. Health and sustainable development				
54(b)	Promote equitable and improved access to affordable and efficient health-care services, including prevention, at all levels of the health system, essential and safe drugs at affordable prices, immunization services and safe vaccines and medical technology	Satellite communications for tele-health	CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute, INRA, CEA	Teleconsultation programme in Guyana and the Arctic onboard airline-operated aircraft. Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. "Projet S2E migrants": space surveillance of epidemics introduced by migrating birds. Telesurgery programme.	
			Communications and systems satellites, Praxim-CNES	SMMAC	
			SUPARCO/OOSA/WHO /UNICEF	SUPARCO is planning to facilitate by connecting big hospitals in Pakistan with health facilities in the rural areas.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
54(c)	Provide technical and financial assistance to developing countries and countries with economies in transition to implement the Health for All Strategy, including health information systems and integrated databases on development hazards	Satellite communications for health information systems. RS/GIS and GNSS for health situation analysis	CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute, INRA, CEA	Teleconsultation programme in Guyana and the Arctic onboard airline-operated aircraft. Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. "Projet S2E migrants": space surveillance of epidemics introduced by migrating birds. Telesurgery programme.	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			Communications and systems satellites, Praxim-CNES	SMMAC	
			ASI	COSMO-SkyMed Programme for technical cartography. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO/OOSA/WHO /UNICEF	SUPARCO is planning to facilitate by connecting big hospitals in Pakistan with health facilities in the urban areas.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/ SPACE/resap/resap_main.asp
			WHO	Inter-American Network on the Use of Geographic Information System/Remote Sensing (GIS/RS) to Control Infectious Diseases	http://listserv.paho.org/archives/inrsgishealth.html
54(e)	Promote and develop partnerships to enhance health education with the objective of achieving improved health literacy on a global basis by 2010, with the involvement of United Nations agencies, as appropriate	Satellite communications for tele-education on health	CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute, INRA, CEA	Teleconsultation programme in Guyana and the Arctic onboard airline-operated aircraft. Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. “Projet S2E migrants”: space surveillance of epidemics introduced by migrating birds. Telesurgery programme.	
			Communications and systems satellites, Praxim-CNES Education: CNES, French, Indian and Tunisian universities, ministries of education and research	Satel-IT project French Medical Virtual University: French-Indian Cyber-University in Sciences.	
			Communications and systems satellites, Praxim-CNES Education: UNESCO, CNDP, CNES, Ministry of Research and New Technologies (France)	EDEN project	
			Communications and systems satellites, Praxim-CNES Education: CRDP, ENSG, ESRI France, Cartosphere, Afigeo, Ministry of Research and New Technologies (France)	GEWED project, web site providing geographical data and GIS for teachers, trainers and students	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			SUPARCO/OOSA/WHO /UNICEF	SUPARCO is planning to facilitate by connecting big hospitals in Pakistan with health facilities in the urban areas.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
54(g)	Target research efforts and apply research results to priority public health issues, in particular those affecting susceptible and vulnerable populations, through the development of new vaccines, reducing exposures to health risks, building on equal access to health-care services, education, training and medical treatment and technology and addressing the secondary effects of poor health	Satellite communications for tele-health/medicine and tele-education	Government of Styria funded projects implemented by JOANNEUM RESEARCH (Austria)	Tele-coaching project for applications in mountain areas where terrestrial communications facilities are not available. Medical data from a heart monitor was transferred via small transportable VSAT terminal to Graz. The facilities are being further developed for tele-consultancy in the medical field and for providing remote medical advice on board of ships.	
			CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute, INRA, CEA	Teleconsultation programme in Guyana and the Arctic onboard airline-operated aircraft. Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. "Projet S2E migrants": space surveillance of epidemics introduced by migrating birds. Telesurgery programme.	
			Communications and systems satellites, Praxim-CNES	SMMAC	
			CNES, French, Indian and Tunisian universities, ministries of education and research	Satel-IT project French Medical Virtual University: French-Indian Cyber-University in Sciences.	
			UNESCO, CNDP, CNES, Ministry of Research and New Technologies (France)	EDEN project	
			CRDP, ENSG, ESRI France, Cartosphere, Afigeo, Ministry of Research and New Technologies (France)	GEWED project, web site providing geographical data and GIS for teachers, trainers and students.	
			SUPARCO/OOSA/WHO /UNICEF	Pakistan first Communication Satellite PAKSAT-1 has been leased and placed in GSO. Plans are underway to develop and launch follow up communication satellites in the near future.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			WHO	Inter-American Network on the Use of Geographic Information System/Remote Sensing (GIS/RS) to Control Infectious Diseases Development of a telehealth strategy	http://listserv.paho.org/archives/inrsgishealth.html
54(k)	Launch international capacity-building initiatives, as appropriate, that assess health and environment linkages and use the knowledge gained to create more effective national and regional policy responses to environmental threats to human health	RS for the assessment of health and environment linkages	CNES - Pasteur Institute – CNRS - MEDES	Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. “Projet S2E migrants”: space surveillance of epidemics introduced by migrating birds.	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			WHO	Inter-American Network on the Use of Geographic Information System/Remote Sensing (GIS/RS) to Control Infectious Diseases	http://listserv.paho.org/archives/inrsgishealth.html
	VII. Sustainable development of small island developing States				
58(b)	Implement sustainable fisheries management and improve financial returns from them by supporting and strengthening relevant regional fisheries management organizations, such as the recently established Caribbean Regional Fisheries Mechanism and such agreements as the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean	RS for sustainable fisheries management	Thales, SODENA, IRD, CLS, Ministry of Research and New Technologies (France)	SEAGERH project	
			SUPARCO, Fisheries department, JAXA - Japan	Remote sensing data for sea surface temperature, marine environment and algal bloom	
58(c)	Assist small island developing States, including through the elaboration of specific initiatives, in delimiting and managing in a sustainable manner their coastal areas and exclusive economic zones and the continental shelf, including, where appropriate, the continental shelf areas beyond 200 miles from coastal baselines, as well as relevant regional management initiatives within the context of the United Nations Convention on the Law of the Sea and the regional seas programmes of the United Nations Environment Programme	RS for management of coastal areas	BRGM – BRLI – CNES – CIRAD - Ifremer, SCOT	AGIL project: assistance for integrated coastal management	
			ASI	COSMO-SkyMed Programme for monitoring and managing coastlines. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO, IUCN, WWF	Assessment of Mangroves Coastal ecosystem of Pakistan through SRS data.	
			UNESCO, WMO, UNEP	IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	United Nations Environment Programme	RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
58(d) (i)	Provide support, including for capacity-building, for the development and further implementation of: (i) Small island developing States-specific components within programmes of work on marine and coastal biological diversity	RS for monitoring marine and coastal biological diversity	BRGM – BRLI – CNES – CIRAD - Ifremer, SCOT	AGIL project: assistance for integrated coastal management	
			Thales, SODENA, IRD, CLS, Ministry of Research and New Technologies (France)	SEAGERH project	
58(h)	Extend assistance to small island developing States in support of local communities and appropriate national and regional organizations of small island developing States for comprehensive hazard and risk management, disaster prevention, mitigation and preparedness, and help relieve the consequences of disasters, extreme weather events and other emergencies	EO satellites and satellite communications for disaster management	CSA, CNES, CONAE, ESA, JAXA, NOAA, ISRO	Satellites of the partners in the International Charter "Space and Major Disasters"	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Technical Cooperation Programme	http://www.wmo.ch/web/tco/TCOHome.html
			UNESCO, WMO, UNEP	IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
			UNESCO	IOC's uses of ocean based RS data to improve forecasts of rainfall in coastal areas	http://ioc.unesco.org/iocweb/index.php
58(j)	Assist small island developing States in mobilizing adequate resources and	EO satellites for assessing adverse	CNES-NASA	TOPEX-Poseidon for altimetric measurements (ocean circulation, etc.)	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	partnerships for their adaptation needs relating to the adverse effects of climate change, sea level rise and climate variability, consistent with commitments under the United Nations Framework Convention on Climate Change, where applicable	effects of climate change		Jason-1 for global altimetric measurements of the oceans, following TOPEX-Poseidon. General meteorology and climate understanding	
			CNES-MétéoFrance-IRD-SHOM	MERCATOR for ocean simulation on the basis of satellite observation; for climate forecasting	
			CNES-CNRS, supported by IRMB and WRC	PICARD for determining solar forcing influence on Earth climate	
			CNES	PARASOL for determining influence of radiative impact of clouds and aerosols on climate change	
			CNES-NASA	CALIPSO study on radiative impact of clouds and aerosols on understanding of climate systems and global change	
			CNES-ESA-CDPI	SMOS for global observation of land surface humidity and ocean salinity. Climate forecasting	
			CNES-CLS	SALP production, archiving and distribution of TOPEX-Poseidon, JASON, DORIS and ENVISAT mission products	
			CNES and French, Belgian, Swedish and Italian manufacturers	VEGETATION instrument for crop and continental biosphere observation	
			ASI	COSMO-SkyMed Programme for ecological monitoring. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			WMO	Technical Cooperation Programme	http://www.wmo.ch/web/tco/TCOHome.html
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
59.	World Summit on Sustainable Development – Plan of Implementation – specific references to Earth Observation	Study on Earth Observation Applications for Sustainable Development	ESA and Geoville (Austria)	Project in support for the Water Framework Directive and the Soil Protection Initiative	
60(a)	Health-care services for promoting equitable access to health care	Satellite communications for tele-health and health information systems	CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute, INRA, CEA	Teleconsultation programme in Guyana and the Arctic on board airline-operated aircraft. Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. “Projet S2E migrants”: Space surveillance of epidemics introduced by migrating birds	
			Communications and systems satellites, Praxim-CNES	SMMAC	
			Government of Styria funded projects implemented by JOANNEUM RESEARCH (Austria)	Tele-coaching project for applications in mountain areas where terrestrial communications facilities are not available. Medical data from a heart monitor was transferred via small transportable VSAT terminal to Graz. The facilities are being further developed for tele-consultancy in the medical field and for providing remote medical advice on board of ships.	
			SUPARCO / health and other relevant departments	Pakistan first Communication Satellite PAKSAT-1 has been leased and placed in GSO. Plans are underway to develop and launch follow up communication satellites in the near future.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WHO	Development of a telehealth strategy	
	VIII. Sustainable development for Africa				
62(b)	Support the implementation of the vision of NEPAD and other established regional and subregional efforts, including through financing, technical cooperation and institutional cooperation and human	Human and institutional capacity building in the use of space applications	Ministry for Regional Planning and the Environment (Algeria)	Action Plan for the New Partnership for Africa's Development (NEPAD) Environment Initiative, and the associated programme for the development of human and institutional capacities	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	and institutional capacity-building at the regional, subregional and national levels, consistent with national policies, programmes and nationally owned and led strategies for poverty reduction and sustainable development, such as, where applicable, poverty reduction strategy papers		CNES - GDTA	Support to staff training by the African Regional Centre Space Sciences and Technology in French Language (CRASTE-LF) in remote sensing and observation of the Earth for the Maghreb and French-speaking Black Africa	
			OOSA	Activities in natural resources management and environmental monitoring, basic space science, and satellite communications	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
62(c)	Promote technology development, transfer and diffusion to Africa and further develop technology and knowledge available in African centres of excellence	Development of space technology in Africa	EUMETSAT	PUMA, to provide access to data from Meteosat second generation satellites for national meteorological services in Africa	
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			OOSA	Activities in natural resources management and environmental monitoring, basic space science, and satellite communications	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
				Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
				Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
62(d)	Support African countries in developing effective science and technology institutions and research activities capable of developing and adapting to world class technologies	Development of space science and technology institutions in Africa	MétéoFrance, IRD, INSU	African Monsoon Multidisciplinary Analysis (AMMA)	
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			OOSA	Activities in basic space science	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			UNESCO	Space Education Programme (SEP)	
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
62(e)	Support the development of national programmes and strategies to promote education within the context of nationally owned and led strategies for poverty reduction and strengthen research institutions in education in order to increase the capacity to fully support the achievement of internationally agreed development goals related to education, including those contained in the Millennium Declaration on ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and that girls and boys will have equal access to all levels of education relevant to national needs	Satellite communications for tele-education	CNES, French, Indian and Tunisian universities, ministries of education and research	Satel-IT projects French Medical Virtual University French-Indian Cyber-University in Sciences (FICUS)	
			UNESCO	Programme for Community Multimedia Centres	
62(f)	Enhance the industrial productivity, diversity and competitiveness of African countries through a combination of	Access to space technology in Africa	MétéoFrance	RETIM Africa: Meteorological information system for professional end-users in Africa	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	countries through a combination of financial and technological support for the development of key infrastructure, access to technology, networking of research centres, adding value to export products, skills development and enhancing market access in support of sustainable development		OOSA	Activities in natural resources management and environmental monitoring, basic space science, and satellite communications	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
62(h)	Provide financial and technical support to strengthen the capacity of African countries to undertake environmental legislative policy and institutional reform for sustainable development and to undertake environmental impact assessments and, as appropriate, to negotiate and implement multilateral environment agreements	RS and GIS for environment impact assessment	UNEP	Global Resource Information Database (GRID)	
62(i)	Develop projects, programmes and partnerships with relevant stakeholders and mobilize resources for the effective implementation of the outcome of the African Process for the Protection and Development of the Marine and Coastal Environment	RS and GIS for monitoring of marine and coastal environment	BRGM, BRIL, CNES, CIRAD, Ifremer, SCOT, Ministry of Research and New Technologies (France)	AGIL project: assistance for integrated coastal management. Development of services.	
			UNESCO, WMO, UNEP	Intergovernmental Oceanographic Commission's Regional Ocean Observing and Forecasting System for Africa (ROOFS-Africa) initiative of the GOOS-Africa programme in the context of NEPAD's coastal programme	
			UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
62(k)	Assist African countries in mobilizing adequate resources for their adaptation needs relating to the adverse effects of climate change, extreme weather events, sea level rise and climate variability, and assist in developing national climate change strategies and mitigation programmes, and continue to take actions to mitigate the adverse effects on climate change in Africa, consistent with the United Nations Framework Convention on Climate Change	EO satellites for monitoring climate change and early warning for extreme weather events	WMO	World Climate Programme	http://www.wmo.ch/web/wcp/wcp_prog.htm
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
			UNESCO, WMO, UNEP	Intergovernmental Oceanographic Commission's Regional Ocean Observing and Forecasting System for Africa (ROOFS-Africa) initiative of the GOOS-Africa programme in the context of NEPAD's coastal programme	
			UNEP	Global Resource Information Database (GRID)	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	on Climate Change		UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
62(n)	Provide financial and technical support for afforestation and reforestation in Africa and to build capacity for sustainable forest management, including combating deforestation and measures to improve the policy and legal framework of the forest sector	RS and GIS for monitoring deforestation	EADS – Geomatics – Cemagref – CESBIO – ONF – MétéoFrance - Ministry of Research and New Technologies (France)	METIS: Forest management and monitoring project	
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			OOSA	Activities in natural resources management and environment monitoring	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			UNOPS, UNEP	Activities in support to post-conflict assessments	www.unosat.org , http://postconflict.unep.ch/
63	Provide financial and technical support for Africa's efforts to implement the Convention to Combat Desertification at the national level and integrate indigenous knowledge systems into land and natural resources management practices, as appropriate, and improve extension services to rural communities and promote better land and watershed management practices, including through improved agricultural practices that address land degradation, in order to develop capacity for the implementation of national programmes	RS and GIS for land and watershed management	UNESCO	World Water Assessment Programme (WWAP)	http://www.unesco.org/water/wwap/
64(a)	Promote equitable access to health-care services	Satellite communications for tele-health, satellite images for assessment to health care	CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute, INRA, CEA	Teleconsultation programme in Guyana and the Arctic on board airline-operated aircraft. Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. "Projet S2E migrants": Space surveillance of epidemics introduced by migrating birds.	
			Communications and systems satellites, Praxim-CNES	Telesurgery programme; SMMAC	
			WHO	Development of a telehealth strategy	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
64(b)	Make available necessary drugs and technology in a sustainable and affordable manner to fight and control communicable diseases, including HIV/AIDS, malaria and tuberculosis, and trypanosomiasis, as well as non-communicable diseases, including those caused by poverty	RS for detecting outbreaks of communicable diseases	CNES, MEDES, CLS, CONAE, French and African hospital centres, Airbus Industrie, Pasteur Institute, INRA, CEA	Teleconsultation programme in Guyana and the Arctic on board airline-operated aircraft. Tele-epidemiology programme in Senegal, Argentina, Guyana, Mali and Burkina Faso. “Projet S2E migrants”: Space surveillance of epidemics introduced by migrating birds.	
64(c)	Build capacity of medical and paramedical personnel	Satellite communications for tele-education/training in medicine and health information systems	CNES, French, Indian and Tunisian universities, ministries of education and research	Satel-IT project. French Medical Virtual University: French-Indian Cyber-University in Sciences (FICUS)	
			ITU	E-Strategy Programme	
			WHO	Development of a telehealth strategy	
64(e)	Research and control Ebola disease	Satellite communications for controlling Ebola outbreaks			
65(a)	Provide financial and technical assistance to strengthen the capacities of African countries, including institutional and human capacity, including at the local level, for effective disaster management, including observation and early warning systems, assessments, prevention, preparedness, response and recovery	Capacity building in the use of EO satellites and satellite communications for disaster management	OOSA	Space Technology and Disaster Management (STDM)	http://www.oosa.unvienna.org/sapidx.html , oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			OOSA, UNOPS	Serving the UN with satellite imagery and value adding products through the International Charter “Space and Major Disasters”	www.unosat.org , www.disastercharter.org
			UNOPS	Global Mapping Grant Facility	www.unosat.org
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models	UNESCO	IOC’s “Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa” (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
65(b)	Provide support to African countries to enable them to better deal with the displacement of people as a result of natural disasters and conflicts and put in place rapid response mechanisms	RS and GIS for planning for displacement of people	UNITAR, UNOPS, CNES, ESA, CERN - SPOT Image, Digitech, GAMMA remote sensing, Ministry of Foreign Affairs (France)	UNOSAT: Rapid response cartographic service and system for prevention and management of humanitarian crises	
			UNHCR	Partnership with Metria (improvement of the role that Very High Resolution Satellite (VHRS) imagery can play within refugee situations)	
			OOSA, UNOPS	Serving the UN with satellite imagery and value adding products through the International Charter "Space and Major Disasters"	www.unosat.org, www.disastercharter.org
			UNOPS	Global Mapping Grant Facility	www.unosat.org
65(c)	Support Africa's efforts for the prevention and resolution, management and mitigation of conflicts and its early response to emerging conflict situations to avert tragic humanitarian consequences	RS and GIS and satellite communications for early response to emerging conflict situations	UNITAR, UNOPS, CNES, ESA, CERN - SPOT Image, Digitech, GAMMA remote sensing, Ministry of Foreign Affairs (France)	UNOSAT: Rapid response cartographic service and system for prevention and management of humanitarian crises	
			UNHCR	Partnership with Metria (improvement of the role that Very High Resolution Satellite (VHRS) imagery can play within refugee situations)	
			OOSA, UNOPS	Serving the UN with satellite imagery and value adding products through the International Charter "Space and Major Disasters"	www.unosat.org, www.disastercharter.org
			UNOPS	Global Mapping Grant Facility	www.unosat.org
65(d)	Provide support to refugee host countries in rehabilitating infrastructure and environment, including ecosystems and habitats, that were damaged in the process of receiving and settling refugees	RS and GIS for rehabilitating infrastructure and environment	UNITAR, UNOPS, CNES, ESA, CERN - SPOT Image, Digitech, GAMMA remote sensing, Ministry of Foreign Affairs (France)	UNOSAT: Rapid response cartographic service and system for prevention and management of humanitarian crises	
			UNEP/UNHCR	Satellite images of the pre-conflict environment in order to assess the consequences in Iraq	
			UNOPS, UNEP	Activities in support to post-conflict assessments	www.unosat.org, http://postconflict.ch
66(b)	Develop and implement integrated river basin and watershed management strategies and plans for all major water bodies,...	RS and GIS for river basin and watershed management	SUPARCO, WAPDA	Snow Cover Estimation and runoff Assessment in Jhelum river Basin	
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/homs/1stpage.html
			UNESCO	World Water Assessment Programme (WWAP)	http://www.unesco.org/water/wwap/index.shtml

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project “Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa”	http://ioc.unesco.org/goos/africa/cross-cutting.htm
66(c)	Strengthen regional, subregional and national capacities for data collection and processing and for planning, research, monitoring, assessment and enforcement, as well as arrangements for water resource management	RS and GIS for water resources management	SUPARCO, WAPDA	Dam site selection. Siltation and Turbidity monitoring in Dams and reservoir	
			WMO	Hydrology and Water Resources Programme	http://www.wmo.ch/web/homs/1stpage.html
			UNESCO	World Water Assessment Programme (WWAP)	http://www.unesco.org/water/wwap/index.shtml
67(a)	Support the development and implementation of national policies and programmes, including research programmes and development plans of African countries to regenerate their agricultural sector and sustainably develop their fisheries, and increase investment in infrastructure, technology and extension services, according to country needs. African countries should be in the process of developing and implementing food security strategies, within the context of national poverty eradication programmes, by 2005	Research programmes and development plans for space technology in Africa	FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			FAO, UNEP	AFRICOVER/Land Cover Mapping; Global Land Cover Network (GLCN) Initiative	www.africover.org
67(e)	Support livestock development programmes aimed at progressive and effective control of animal diseases	RS for control of animal diseases			

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
69	Bridge the digital divide and create digital opportunity in terms of access infrastructure and technology transfer and application through integrated initiatives for Africa. Create an enabling environment to attract investment, accelerate existing and new programmes and projects to connect essential institutions and stimulate the adoption of information communication technologies in government and commerce programmes and other aspects of national economic and social life	Satellite communications for bridging digital divide	CNES, France Télécom, La Poste, Worldspace	France's stand at WSIS presenting projects: to bridge the digital divide: "Communicating villages"; and La Poste and the Cyberkiosque of France Télécom on the subject of the Internet by satellite. Tele-education and telemedicine demonstrations. Direct digital radio broadcasting via Worldspace to Africa and Asia.	
			WMO	Technical Cooperation Programme	http://www.wmo.ch/web/tco/TCOHome.html
			UNOPS, UNITAR	UNOSAT web-portal and Grid data dissemination techniques	www.unosat.org
70(e)	Support the conservation of Africa's biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, in accordance with commitments that countries have under biodiversity-related agreements to which they are parties, including such agreements as the Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Fauna and Flora, as well as regional biodiversity agreements	RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
104.	World Summit on Sustainable Development – Plan of Implementation – specific references to Earth Observation	Study on Earth Observation Applications for Sustainable Development	ESA and Geoville (Austria)	Project in support for the Water Framework Directive and the Soil Protection Initiative	
	X. Means of implementation				
	<i>- Environmentally sound technologies -</i>				
105(e)	Promote the access and transfer of technology related to early warning systems and to mitigation programmes to	EO satellites and satellite communications for	ASC, CNES, CONAE, ESA, JAXA, NOAA, ISRO	International Charter "Space and Major Disasters"	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	systems and to mitigation programmes to developing countries affected by natural disasters	communications for early warning systems and mitigation programmes to combat natural disasters	SUPARCO, Pakistan Telecommunication Corporation Ltd., Pakistan Meteorological Deptt.	EOSS and PAKSAT applications - Programs relating to natural disaster and damage assessment	
			ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Natural Disaster Prevention and Mitigation Programme	
			UNESCO, WMO, UNEP	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
				IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
106	Improve the transfer of technologies to developing countries, in particular at the bilateral and regional levels, including through urgent actions at all levels	Transfer of space technology to developing countries	Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (RECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
106(a)	Improve interaction and collaboration, stakeholder relationships and networks between and among universities, research institutions, government agencies and the private sector	Transfer of space technology to developing countries	Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (RECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
				Geological Applications of Remote Sensing (GARS) programme	http://www.unesco.org/science/earthsciences
				Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			UNESCO, WMO, UNEP	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
				IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
106(b)	Develop and strengthen networking of related institutional support structures, such as technology and productivity centres, research, training and development institutions, and national and regional cleaner production centres	Transfer of space technology to developing countries	Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
			UNESCO, WMO, UNEP	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
				IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
			UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
106(c)	Create partnerships conducive to investment and technology transfer, development and diffusion, to assist developing countries, as well as countries with economies in transition, in sharing best practices and promoting programmes of assistance, and encourage collaboration between corporations and research institutes to enhance industrial efficiency, agricultural productivity, environmental management and competitiveness	Transfer of space technology to developing countries	Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			UNESCO, WMO, UNEP	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
				IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
	- Building capacity -				

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
107	Assist developing countries in building capacity to access a larger share of multilateral and global research and development programmes. In this regard, strengthen and, where appropriate, create centres for sustainable development in developing countries	Building capacity to access multilateral and global R&D in space-related areas.	Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (RECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			SUPARCO/ISNET (OIC's Space Technology Network/OOSA)	Space Technology and Disaster Management Program (STDM) is being organized by the OIC Countries	
			OOSA	Workshops and technical advisory services in the areas of basic space science, natural resources management and environment monitoring, satellite communications	http://www.oosa.unvienna.org/sapidx.html oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	
			UNESCO	Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
108	Build greater capacity in science and technology for sustainable development, with action to improve collaboration and partnerships on research and development and their widespread application among research institutions, universities, the private sector, governments, non-governmental organizations and networks, as well as between and among scientists and academics of developing and developed countries, and in this regard encourage networking with and between centres of scientific excellence in developing countries	Capacity building in the use of space science and technology for sustainable development	CNES-ESA	CNES-ESA-UNESCO Workshop on UNISPACE III recommendations on education. Development of a database to identify educational space projects.	
			SUPARCO, et al.	Organizing of short training programmes at national level for capacity building. Development of National center for Remote sensing and GIS at Karachi	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (RECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			OOSA	Workshops and technical advisory services in the areas of basic space science, natural resources management and environment monitoring, satellite communications	http://www.oosa.unvienna.org/sapidx.html oosa@unvienna.org
				Regional Centres for Space Science and Technology Education	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			UNESCO	Space for Science project in cooperation with the European Space Agency (ESA)	http://portal.unesco.org/ci/ev.php?URL_ID=1263&URL_DO=DO_TOPIC&URL_SECTION=201&reload=1075742490
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
			UNOPS, UNITAR	Education and awareness raising on benefits from GIS and remote sensing through International Training Centre for Local Actors (CIFAL) network	www.unitar.org/dcp/ , www.unosat.org
109(a)	Increase the use of scientific knowledge and technology and increase the beneficial use of local and indigenous knowledge in a manner respectful of the holders of that knowledge and consistent with national law	Increase the use of space science and technology	SUPARCO	Organization of national workshops/ seminars/ training courses	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	www.unosat.org
109(b)	Make greater use of integrated scientific assessments, risk assessments and interdisciplinary and intersectoral approaches	Space applications for scientific assessments	SUPARCO	Provision of RS/ value added products and training to user agencies.	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			UNESCO	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
109(c)	Continue to support and collaborate with international scientific assessments supporting decision-making, including the Intergovernmental Panel on Climate Change, with the broad participation of developing country experts	Space applications for scientific assessments	SUPARCO/Pakistan Met. Deptt./WMO/OOSA	Regional/OIC Countries imparted the Training Program on the related subject.	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
109(d)	Assist developing countries in developing and implementing science and technology policies	Development and implementation of space policy for development	Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			UNESCO	Activities of the Division of Science Analysis and Policies	http://www.unesco.org/pao/
109(e)	Establish partnerships between scientific, public and private institutions, including by integrating the advice of scientists into decision-making bodies to ensure a greater role for science, technology development and engineering sectors	Greater role for space science and technology	SUPARCO / Relevant government / non governmental agencies, organizations, etc.	Provision of RS/ value added products and training to user agencies.	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			UNESCO	Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
			UNOPS, UNITAR	UNOSAT Initiative	www.unosat.org
109(f)	Promote and improve science-based decision-making and reaffirm the precautionary approach as set out in principle 15 of the Rio Declaration on Environment and Development, which states: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."	Space science and technology applications for science-based decision-making	SUPARCO / relevant government / non governmental agencies, organization, etc.	Services are being provided to ENERCON, Federal/Provincial Ministries, NGO's, Private Sector etc. SUPARCO has been conducting extensive environmental monitoring program using satellite/ground based measurements.	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	
			UNESCO	Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
110(a)	Improve their use of science and technology for environmental monitoring, assessment models, accurate databases and integrated information systems	Use of space science and technology for environmental monitoring, assessment models, accurate databases and integrated information systems.	Hungarian Meteorological Service	Radiation budget investigation	
			SUPARCO / relevant government / non governmental agencies, organizations, etc.	Atmospheric Data (Satellite/Ground Based Measurement) are used for environmental studies.	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNESCO	Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
			UNEP	Abu Dhabi Global Environmental Data Initiative (AGEDI)	
			UNEP	Global Resource Information Database (GRID)	
110(b)	Promote and, where appropriate, improve their use of satellite technologies for quality data collection, verification and updating, and further improve aerial and ground-based observations, in support of their efforts to collect quality, accurate, long-term, consistent and reliable data	Use of satellite technologies for quality data collection, verification and updating	UNOPS, UNITAR	UNOSAT Initiative	www.unosat.org
			ASI	COSMO-SkyMed Programme (to start operating in 2007 and reach full capacity in 2008).	
			SUPARCO, Satellite Ground Station	Upgrading SGS for archiving high-resolution data. DCPs for receiving data of inaccessible areas.	
			ESCAP	Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNEP	Global Resource Information Database (GRID)	
			UNESCO	Space Education Programme (SEP)	
			UNESCO, WMO, UNEP	IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
				IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South- East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
			UNESCO	Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
			UNOPS, UNITAR	UNOSAT Initiative	www.unosat.org
111	Establish regular channels between policy makers and the scientific community to request and receive science and technology advice for the implementation of Agenda 21 and create and strengthen networks for science and education for sustainable development, at all levels, with the aim of sharing knowledge, experience and best practices and building scientific capacities, particularly in developing countries.	Channels between policy makers and space community	SUPARCO, Ministry of Environment	Sharing knowledge and experience on space sciences and technology with relevant educational institutions, organizations, etc.	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (RECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNESCO	Space Hydrology International Partnership (SHIP) in cooperation with European Space Agency's TIGER project	http://www.unesco.org/water
				Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
112	Use information and communication technologies, where appropriate, as tools to increase the frequency of communication and the sharing of experience and knowledge and to improve the quality of and access to information and communications	Satellite communications for increasing the frequency of communications and improving access to information	SUPARCO et al.	Communication satellite under development - PAKSAT programme	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.htm 1
			ITU	E-Strategy Programme	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
	technology in all countries, building on the work facilitated by the United Nations Information and Communications Technology Task Force and the efforts of other relevant international and regional forums		UNESCO, WMO, UNEP	Intergovernmental Oceanographic Commission's Regional Ocean Observing and Forecasting System for Africa (ROOFS-Africa) initiative of the GOOS-Africa programme in the context of NEPAD's coastal programme	
				IOC's Global Ocean Observing System (GOOS) Regional Alliances including those for Africa, Black Sea, Mediterranean, Caribbean, Indian Ocean, Pacific Islands, North-East and South-East Asia, South-East Pacific	http://ioc.unesco.org/iocweb/index.php
			UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm
				IOC's "Regional Ocean Observing and Forecasting Systems for Integrated Management of Ocean and Coastal Environment and Natural Disasters in Africa" (ROOFS-AFRICA) project	http://ioc.unesco.org/goos/africa/ROOFS-AFRICA.htm
	- Education -				
116(b)	Provide all children, particularly those living in rural areas and those living in poverty, especially girls, with the access and opportunity to complete a full course of primary education	Satellite communications for tele-education in rural areas	CNES, French, Indian and Tunisian universities, ministries of education and research	Satel-IT French Medical Virtual University FICUS projects	
			UNESCO, CNDP, CNES	EDEN distance education project	
			CRDP, ENSG, ESRI France, Cartosphere, Afgeo	GEWED project web site providing geographical data and GIS for teachers, trainers and students	
			SUPARCO and others	PAKSAT programme	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			ITU	E-Strategy Programme	
			UNESCO	Harnessing information communication technologies for Education project	
				Programme for Community Multimedia Centre	http://portal.unesco.org/ci/en/ev.php-URL_ID=1263&URL_DO=DO_TOPIC&URL_SECTION=201.html
119.	World Summit on Sustainable Development – Plan of Implementation – specific references to Earth Observation	Study on Earth Observation Applications for Sustainable Development	ESA and Geoville (Austria)	Project in support for the Water Framework Directive and the Soil Protection Initiative	

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
124(a)	Integrate information and communications technology in school curriculum development to ensure its access by both rural and urban communities and provide assistance, particularly to developing countries, inter alia, for the establishment of an appropriate enabling environment required for such technology	Satellite communications for tele-education in rural areas	CNES, French, Indian and Tunisian universities, ministries of education and research	Satel-IT French Medical Virtual University FICUS projects	
			UNESCO, CNDP, CNES	EDEN distance education project	
			CRDP, ENSG, ESRI France, Cartosphère, Afigeo	GEWED project web site providing geographical data and GIS for teachers, trainers and students	
			SUPARCO/Federal/Provincial Ministry of Education	The concerned ministries are being proposed to include topics on Information and Communication Technology for School Curriculum	
			UNESCO	Training of Primary Educators in Morocco using Interactive Television project Programme for Community Multimedia Centres	
	- Capacity-building -				
125	Enhance and accelerate human, institutional and infrastructure capacity-building initiatives and promote partnerships in that regard that respond to the specific needs of developing countries in the context of sustainable development	Capacity-building in the use of space science and technology for sustainable development	SUPARCO, UNDP, et al.	Human resource development program on national / international level	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNOPS, UNITAR	Education and awareness raising on benefits from GIS and remote sensing through International Training Centre for Local Actors (CIFAL) network	www.unitar.org/dcp/ , www.unosat.org
			UNESCO	Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project "Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa"	http://ioc.unesco.org/goos/africa/cross-cutting.htm

Action items in the Plan of Implementation (A/CONF.199/20, Resolution 2)		Relevant space applications	Space-related initiatives and programmes that could support the implementation of the action		Web-site(s) for further information
Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
126	Support local, national, subregional and regional initiatives with action to develop, use and adapt knowledge and techniques and to enhance local, national, subregional and regional centres of excellence for education, research and training in order to strengthen the knowledge capacity of developing countries and countries with economies in transition through, inter alia, the mobilization from all sources of adequate financial and other resources, including new and additional resources	Capacity-building in the use of space science and technology for sustainable development	SUPARCO, ISNET	Human resources development program	
			Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	www.unosat.org
127(d)	Build and, where appropriate, strengthen national capacities for carrying out effective implementation of Agenda 21	Capacity building in the use of space science and technology for the implementation of Agenda 21	Regional Centre for Space Science and Technology Education in Latin America and the Caribbean (CRECTEALC)	Enhancement of the capabilities of the countries in the region in various disciplines of space science and technology that can advance their scientific, economic and social development.	
			UNESCO	Space Education Programme (SEP)	http://www.unesco.org/science/earthsciences/sep.htm
			UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	www.unosat.org
132	Promote the development and wider use of <u>earth observation technologies, including satellite remote sensing, global mapping and geographic information systems</u> , to collect quality data on environmental impacts, land use and land-use changes, including through urgent actions at all levels...	Development and wider use of EO technologies	Australia's Department of the Environment and Heritage (DEH)	Various initiatives that use Earth observing remote sensing and GIS data analysis	http://www.deh.gov.au/
			ESA-EU, GDTA	Global Monitoring for Environment and Security (GMES) GDTA training programmes	
			ASI	COSMO-SkyMed Programme (to start operating in 2007 and reach full capacity in 2008).	
			SUPARCO	Plans are at a foot to develop and launch Pakistan's own Earth Observation Satellite Program EOSS	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			UNESCO	Space Education Programme (SEP)	

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Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
		RS and GIS information as decision making tools for policy makers and managers; development of forecasting and management models; training and research as a key to poverty alleviation	UNESCO	Cross-cutting project “Application of Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa”	http://ioc.unesco.org/goos/africa/cross-cutting.htm
132(a)	Promote the development and wider use of earth observation technologies, including satellite remote sensing, global mapping and geographic information systems , to collect quality data on environmental impacts, land use and land-use changes, including through urgent actions at all levels...	RS for global observing systems	National Meteorology Office (Algeria)	Basic world network for ozone research	
			ESA-EU GDTA	GMES GDTA training programmes	
			ASI	COSMO-SkyMed Programme (to start operating in 2007 and reach full capacity in 2008).	
			SUPARCO	Plans are at a foot to develop and launch of Pakistan’s own Earth Observation Satellite Program EOSS	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			UNEP	Global Resource Information Database (GRID)	
			UNESCO	Man and Biosphere (MAB) programme and its Biosphere Reserve Integrated Monitoring (BRIM) initiative	
				Geological Applications of Remote Sensing (GARS) programme	
				Pan-African Network for a Geological Information System (PANGIS) project	
132(b)	Develop information systems that make the sharing of valuable data possible, including the active exchange of Earth observation data	Satellite communications for information systems	UNOPS, UNITAR	UNOSAT Initiative	www.unosat.org
			SPOT Image	SPOT Image catalogue	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.htm

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Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNESCO	Pan-African Network for a Geological Information System (PANGIS) project	
				Southeast Asian Network for a Geological Information System (SANGIS) project	
			UNOPS, UNGIWG	Very High Resolution Satellite Imagery database for UN Geographic Information Working Group (UNGIWG) members	www.ungiwg.org , www.unosat.org
132(c)	Encourage initiatives and partnerships for global mapping	RS for global mapping	ASI	COSMO-SkyMed Programme for technical cartography. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO/Other relevant government agencies/ organizations etc.	Provision of SRS data/ Value added products to relevant user agencies.	
			FAO, WFP, UNEP	GeoNetwork	www.fao.org/geonetwork
			UNOPS, UNITAR	UNOSAT web-portal and Grid data dissemination techniques	www.unosat.org
			UNOPS	Global Mapping Grant Facility	www.unosat.org
		GIS for integrated information management	16 UN organs, coordinated by WHO	Second Administrative Level Boundaries data set (SALB)	http://www3.who.int/whosis/gis/salb/salb_home.htm
133(a)	Collect data that are accurate, long-term, consistent and reliable	EO satellites for long-term consistent data collection	SUPARCO	SUPARCO's SGS for acquisition of high quality data.	
			UNEP	Abu Dhabi Global Environmental Data Initiative (AGEDI) (para. 52, A/AC.105/792)	
133(b)	Use <u>satellite and remote-sensing technologies</u> for data collection and further improvement of ground-based observations	RS for data collection and improvement of ground-based observations	WMO	World Weather Watch Programme and	http://www.wmo.ch/web/www/www.html
				WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html
			UNESCO	Geological Applications of Remote Sensing (GARS) programme	
			UNOPS, UNITAR	UNOSAT Initiative	www.unosat.org
133(c)	Access, explore and use geographic information by utilizing the technologies of <u>satellite remote sensing, satellite global positioning, mapping and geographic information systems</u>	RS, GNSS and GIS for geographic information	ASI	COSMO-SkyMed Programme for technical cartography. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO et al.	GPS based Balloon sounding system. RS/GIS applications	
			WMO	WMO Space Programme	http://www.wmo.ch/hinsman/satsun.html

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Para.	Action item		Agencies / institution(s) involved	Initiatives/Programmes	
			UNESCO	Geological Applications of Remote Sensing (GARS) programme	
			UNOPS, UNGIWG	Very High Resolution Satellite Imagery database for UN Geographic Information Working Group (UNGIWG) members	www.ungiwg.org, www.unosat.org
			UNOPS, UNITAR	UNOSAT Initiative	www.unosat.org
134(a)	Provide affordable access to disaster-related information for early warning purposes	RS and satellite communications for disaster-related information for early warning	ASI	COSMO-SkyMed Programme for monitoring, prevention and management of both natural and technological environmental disasters even in extreme usage conditions. The Programme is to start operating in 2007 and reach full capacity in 2008.	
			SUPARCO	Using met satellite images, COPSPAS-SARSAT system for SEARCH and RESCUE and value added Satellite data for early warning of impending tropical cyclones.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	Natural Disaster Prevention and Mitigation Programme	
			OOSA, UNOPS	Serving the UN with satellite imagery and value adding products through the International Charter "Space and Major Disasters"	www.unosat.org, www.disastercharter.org
			UNOPS	Global Mapping Grant Facility	www.unosat.org
134(b)	Translate available data, particularly from global meteorological observation systems, into timely and useful products	Translating meteorological satellites data into timely and useful products	SUPARCO	APT/ARGOS/ TOVS sounding system	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	http://www.unescap.org/icstd/SPACE/resap/resap_main.asp
			WMO	World Weather Watch Programme	http://www.wmo.ch/web/www/www.htm1
				World Climate Programme	http://www.wmo.ch/web/wcp/wcp_prog.htm
135	Develop and promote the wider application of environmental impact assessments, inter alia, as a national instrument, as appropriate, to provide essential decision-support information on projects that could cause significant adverse effects to the environment.	RS and GIS in promoting the wider application of environmental impact assessments to provide decision-support information	SUPARCO, Ministry of Environment	Provision of SRS data/ Value added products to relevant user agencies. National Landuse plan.	
			UNEP	Global Resource Information Database (GRID)	