

X. MEANS OF IMPLEMENTATION

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.univie.nna.org/sapidx.html oosa@univie.nna.org
				Regional Centres for Space Science and Technology Education	
			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			
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	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	

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	
	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		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
			WMO	WMO Space Programme	http://www.wmo.ch/hi nsman/satsun.html
			OOSA	Workshops and technical advisory services in the areas of basic space science, natural resources management and environment monitoring, satellite communications Regional Centres for Space Science and Technology Education	http://www.oosa.unvienna.org/sapidx.html oosa@unvienna.org
			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/g oos/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

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	
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/g oos/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.	
			FAO, UNESCO, UNEP, WMO	Global Terrestrial Observing System (GTOS)	www.fao.org/gtos

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 "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/gooos/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	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)	

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	
	scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”		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/gooos/africa/ROOFS-AFRICA.htm
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 (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.	
			WMO	WMO Space Programme	http://www.wmo.ch/hi nsman/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/gooos/africa/ROOFS-AFRICA.htm
			UNEP	Abu Dhabi Global Environmental Data Initiative (AGEDI)	
			UNEP	Global Resource Information Database (GRID)	
		UNOPS, UNITAR	UNOSAT Initiative	www.unosat.org	
110(b)	Promote and, where appropriate, improve their use of satellite technologies for quality data collection,	Use of satellite technologies for quality data	ASI	COSMO-SkyMed Programme (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	
	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	collection, verification and updating	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
				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	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.	

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	
	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.		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 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	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.html
			ITU	E-Strategy Programme	
			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	

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	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