

## X. MEANS OF IMPLEMENTATION

### Capacity-building

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
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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 (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)	<a href="http://www.unescap.org/icstd/SPACE/resap/resap_main.asp">http://www.unescap.org/icstd/SPACE/resap/resap_main.asp</a>
			UNOPS, UNITAR	Education and awareness raising on benefits from GIS and remote sensing through International Training Centre for Local Actors (CIFAL) network	<a href="http://www.unitar.org/dcp/">www.unitar.org/dcp/</a> , <a href="http://www.unosat.org">www.unosat.org</a>
		UNESCO	Space Education Programme (SEP)	<a href="http://www.unesco.org/science/earthsciences/sep.htm">http://www.unesco.org/science/earthsciences/sep.htm</a>	
		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"	<a href="http://ioc.unesco.org/goods/africa/cross-cutting.htm">http://ioc.unesco.org/goods/africa/cross-cutting.htm</a>
126	Support local, national, subregional and	Capacity-building in	SUPARCO, ISNET	Human resources development program	

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	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	the use of space science and technology for sustainable 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.	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	<a href="http://www.unescap.org/icstd/SPACE/resap/resap_main.asp">http://www.unescap.org/icstd/SPACE/resap/resap_main.asp</a>
			UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	<a href="http://www.unosat.org">www.unosat.org</a>
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)	<a href="http://www.unesco.org/science/earthsciences/sep.htm">http://www.unesco.org/science/earthsciences/sep.htm</a>
			UNOPS, UNITAR	Activities in support to disaster preparedness, capacity building and sustainable development	<a href="http://www.unosat.org">www.unosat.org</a>
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	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	<a href="http://www.deh.gov.au/">http://www.deh.gov.au/</a>
			ESA-EU, GDTA	Global Monitoring for Environment and Security (GMES) GDTA training programmes	

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	data on environmental impacts, land use and land-use changes, including through urgent actions at all levels...		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)	<a href="http://www.unescap.org/g/icstd/SPACE/resap/resap_main.asp">http://www.unescap.org/g/icstd/SPACE/resap/resap_main.asp</a>
			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"	<a href="http://ioc.unesco.org/g oos/africa/cross-cutting.htm">http://ioc.unesco.org/g oos/africa/cross-cutting.htm</a>
132(a)	Promote the development and wider use of <b><u>earth observation technologies, including satellite remote sensing, global mapping and geographic information systems</u></b> , 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	

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			FAO, WFP, UNEP	GeoNetwork	<a href="http://www.fao.org/geonet/ork">www.fao.org/geonet/ork</a>
			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	
				Southeast Asian Network for a Geological Information System (SANGIS) project	
			UNOPS, UNITAR	UNOSAT Initiative	<a href="http://www.unosat.org">www.unosat.org</a>
132(b)	Develop information systems that make the sharing of valuable data possible, including the active exchange of <b><u>Earth observation data</u></b>	Satellite communications for information systems	SPOT Image	SPOT Image catalogue	
			ESCAP	Regional Space Applications Programme for Sustainable Development (RESAP)	<a href="http://www.unescap.org/icstd/SPACE/resap/resap_main.asp">http://www.unescap.org/icstd/SPACE/resap/resap_main.asp</a>
			WMO	World Weather Watch Programme	<a href="http://www.wmo.ch/web/www/html">http://www.wmo.ch/web/www/html</a>
				WMO Space Programme	<a href="http://www.wmo.ch/hisun/satsun.html">http://www.wmo.ch/hisun/satsun.html</a>
			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	<a href="http://www.ungiwg.org">www.ungiwg.org</a> , <a href="http://www.unosat.org">www.unosat.org</a>

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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	<a href="http://www.fao.org/geonetw ork">www.fao.org/geonetw ork</a>
			UNOPS, UNITAR	UNOSAT web-portal and Grid data dissemination techniques	<a href="http://www.unosat.org">www.unosat.org</a>
		UNOPS	Global Mapping Grant Facility	<a href="http://www.unosat.org">www.unosat.org</a>	
		GIS for integrated information management	16 UN organs, coordinated by WHO	Second Administrative Level Boundaries data set (SALB)	<a href="http://www3.who.int/w hosis/gis/salb/salb_ho me.htm">http://www3.who.int/w hosis/gis/salb/salb_ho me.htm</a>
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 <b>satellite and remote-sensing technologies</b> 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	<a href="http://www.wmo.ch/web/www/www.html">http://www.wmo.ch/web/www/www.html</a>
				WMO Space Programme	<a href="http://www.wmo.ch/hisman/satsun.html">http://www.wmo.ch/hisman/satsun.html</a>
			UNESCO	Geological Applications of Remote Sensing (GARS) programme	
			UNOPS, UNITAR	UNOSAT Initiative	<a href="http://www.unosat.org">www.unosat.org</a>
133(c)	Access, explore and use geographic information by utilizing the technologies of <b>satellite remote sensing, satellite global positioning, mapping and geographic information systems</b>	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	

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			WMO	WMO Space Programme	<a href="http://www.wmo.ch/hisman/satsun.html">http://www.wmo.ch/hisman/satsun.html</a>
			UNESCO	Geological Applications of Remote Sensing (GARS) programme	
			UNOPS, UNGIWG	Very High Resolution Satellite Imagery database for UN Geographic Information Working Group (UNGIWG) members	<a href="http://www.ungiwg.org">www.ungiwg.org</a> , <a href="http://www.unosat.org">www.unosat.org</a>
			UNOPS, UNITAR	UNOSAT Initiative	<a href="http://www.unosat.org">www.unosat.org</a>
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)	<a href="http://www.unescap.org/icstd/SPACE/resap/resap_main.asp">http://www.unescap.org/icstd/SPACE/resap/resap_main.asp</a>
			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"	<a href="http://www.unosat.org">www.unosat.org</a> , <a href="http://www.disastercharter.org">www.disastercharter.org</a>
			UNOPS	Global Mapping Grant Facility	<a href="http://www.unosat.org">www.unosat.org</a>
134(b)	Translate available data, particularly from global <b>meteorological observation</b> 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)	<a href="http://www.unescap.org/icstd/SPACE/resap/resap_main.asp">http://www.unescap.org/icstd/SPACE/resap/resap_main.asp</a>
			WMO	World Weather Watch Programme	<a href="http://www.wmo.ch/web/www.html">http://www.wmo.ch/web/www.html</a>

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				World Climate Programme	<a href="http://www.wmo.ch/web/wcp/wcp_prog.htm">http://www.wmo.ch/web/wcp/wcp_prog.htm</a>
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)	