

Annex 1: Summary of Monitoring Strategy

Key Area	Objectives	Sub-Strategies	Actions	Implementation
Key Area 1: Strategic Monitoring	To have in place a number of programs for strategic monitoring implemented and operated under the auspices of NBI (including fixed station monitoring and remotely sensed data acquisition).	Establish a strategic network of hydrologic monitoring stations on the main reaches of the Nile (Blue and White) and the main tributaries. Such a network should be implemented and managed under the auspices of NBI. This will involve establishing a small number of new stations in strategic locations to be maintained and operated by the respective Member Countries, and the upgrading of some stations presently operated by Member Countries.	Review the proposed network of hydrologic monitoring stations with regard to suitability for inclusion in the strategic network.	Package 2
			Upgrade existing stations to be included in the strategic network of hydrologic monitoring stations.	Package 2
			Install new stations for the strategic network of hydrologic monitoring stations.	Package 2
			Continuously operate and maintain all stations within the strategic network of hydrologic monitoring stations.	Member Countries
		Establish a strategic network of meteorological monitoring stations (from among stations already existing in the Member Countries' networks) under the auspices of NBI, upgrading the stations as necessary. However, new stations should not be required as the network is already very extensive.	Review the proposed network of meteorological monitoring stations with regard to suitability for inclusion in the strategic network.	Package 2
			Upgrade existing stations to be included in the strategic network of meteorological monitoring stations.	Package 2
			Continuously operate and maintain all stations within the strategic network of meteorological monitoring stations.	Member Countries

Key Area	Objectives	Sub-Strategies	Actions	Implementation
		<p>Establish a network of water quality monitoring stations under the auspices of NBI, based on the proposals for a trans-boundary water quality monitoring network for the Nile Basin developed by the NTEAP Water Quality Monitoring Working Group.</p>	<p>Review the proposed network of water quality monitoring stations to confirm suitability for inclusion in the strategic network, and determine which of the “special” parameters are appropriate for monitoring – all stations will be monitored for the “basic” parameters.</p> <p>At each site, install instream monitoring equipment for the “basic” parameters.</p> <p>For each site, prepare an appropriate sampling program for the “special” parameters and protocols for sample testing.</p> <p>Continuously operate (including laboratory analysis) and maintain all stations within the strategic network of water quality monitoring stations.</p> <p>Periodically review the water quality monitoring network (sites and parameters) to ensure that the program is still relevant and effective.</p>	<p>Package 3</p> <p>Package 3</p> <p>Package 3</p> <p>Member Countries</p> <p>Package 3 (and NBI ongoing)</p>
		<p>Ensure that reservoir operators measure and report reservoirs for inclusion in the NBI knowledge base.</p>	<p>Prepare and implement a set of formal agreements with reservoir operators to measure and report reservoirs for inclusion in the NBI knowledge base.</p>	<p>Package 2</p>

Key Area	Objectives	Sub-Strategies	Actions	Implementation
		Ensure that a program of lake level monitoring is in place and operating effectively.	Assess the effectiveness of lake level monitoring and assist the relevant Member Countries to upgrade lake level monitoring programs if necessary.	Package 2
		Establish a network of sediment monitoring stations.	Undertake sediment load monitoring at all sites in the hydrologic monitoring network.	Member Countries
		Establish a program of sedimentation (bathymetric) monitoring in selected lakes within the basin	Develop and implement a program of bathymetric surveys for sedimentation monitoring for selected lakes.	Package 2
		Establish a program of acquisition and interpretation of remotely sensed data to monitor spatial parameters related to watersheds and wetlands.	Determine the appropriate scale, spectrum and source of remotely sensed data that will enable the required parameters related to watersheds and wetlands to be measured.	Package 4
			Prepare guidelines and standards for the interpretation and analysis of remotely sensed imagery for evaluation of relevant watershed and wetlands characteristics and parameters.	Package 4
			Prioritise sub-basins according to urgency and importance of monitoring needs for watersheds and wetlands monitoring and develop a remotely sensed data acquisition program accordingly.	Package 4
			Acquire and interpret data for high priority sub-basins.	Package 4 (and NBI ongoing)

Key Area	Objectives	Sub-Strategies	Actions	Implementation
			Acquire and interpret data for lower priority sub-basins.	NBI
			Acquire and interpret updated remotely sensed data on a regular basis, depending on priorities.	NBI
		To have the most appropriate technology available and implemented to undertake all monitoring activities in a cost-effective manner.	Finalise evaluation of the use of integrated telemetry based data acquisition systems (such as HYCOS).	Package 5
			Implement the appropriate integrated telemetry based data acquisition system based on the detailed evaluation.	Package 5
			Maintain and operate the integrated telemetry based data acquisition system	Package 5 (and NBI ongoing)
			Carefully scrutinise and evaluate proposals for purchase and application of monitoring techniques and equipment to ensure that they are of the highest technological standard, consistent with constraints imposed by organisational capacity, availability of funding and logistical practicalities.	NBI

Key Area	Objectives	Sub-Strategies	Actions	Implementation
	To have a mechanism for rapid assessment of the environmental and hydrometeorological status of the basin to inform decision makers and other key stakeholders about basin health.	Have an agreed set of environmental (including hydrometeorological) indicators to inform decision makers of basin status and regularly report these indicators.	Review the set of hydrometeorological and environmental indicators proposed (including by consideration of the upcoming “state-of-the-basin” reporting study), as well as the reporting format, and get final approval	Package 6
			Determine the stations that will provide the data to compute the indicators.	Package 6
			Compute a baseline set of indicators from existing data.	Package 6
			Annually compute and report the hydrometeorological and environmental indicators.	NBI
			Periodically review the indicators to ensure ongoing relevance.	NBI
		Ensure that the data collected under the strategic monitoring programs allow the agreed environmental indicators to be readily computed and in a timely manner.	During the review of the proposed strategic networks of monitoring stations make sure that the appropriate data is to be collected.	Package 2 Package 3

Key Area	Objectives	Sub-Strategies	Actions	Implementation
	To provide adequate data and knowledge for assessment of impacts due to climate change and the development of adaptation strategies.	Ensure that strategic monitoring programs are implemented as a priority, and maintained and operated over the long term, and that key data is used for climate change assessments.	Determine key hydrologic and meteorological monitoring stations (from the strategic networks) to be used for climate change assessment, including for use in the computation of the relevant indicators.	Package 6
			Ensure continuous operation of the key hydrologic and meteorological monitoring stations.	Member Countries
	To provide adequate data for the “technical resolution” of transboundary water (quantity and quality) issues.	Ensure that the location of monitoring sites in the strategic monitoring programs to be established under the auspices of NBI allow data to be collected that supports the “technical resolution” of transboundary water (quantity and quality) issues.	During the review of the proposed strategic networks of monitoring stations make sure that the appropriate data is to be collected from suitably located sites to support the “technical resolution” of transboundary water (quantity and quality) issues.	Package 2 Package 3
	To maximise the use of data available from “external” sources.	Ensure that other available sources of information are monitored (especially the so-called “global knowledge portals” that can provide supplementary information for improved transboundary water management.	Set up and operate a mechanism for regular monitoring of appropriate global knowledge portals for supplementary information relevant to water resource management in the Nile Basin.	Package 6

Key Area	Objectives	Sub-Strategies	Actions	Implementation
Key Area 2: Data Archiving and Dissemination	To ensure that all data collected by NBI projects are (after quality assurance) entered into the NBI Regional Knowledge Base.	Continue to implement the existing Interim Data Sharing Agreement and update as necessary, so that all data collected by NBI projects are (after quality assurance) entered into the NBI Regional Knowledge Base.	Continue to implement the Interim Data Sharing Procedures so that all data collected by NBI projects are (after quality assurance) entered into the NBI Regional Knowledge Base and monitor their effectiveness.	NBI
			Review the data sharing procedures at regular intervals and update (if necessary) to reflect changing circumstances.	Package 7
	To ensure that information contained in the Regional Knowledge Base is accessible to those that have legitimate use for it.	Operate and maintain the strategic monitoring networks effectively and have protocols for the data collected to be entered into the Regional Knowledge Base	Develop protocols for the data collected from the strategic monitoring networks to be entered into the Regional Knowledge Base (by expansion of the existing Interim Procedures for Data Sharing, or by a separate, specific new agreement).	Package 7
			Receive strategic network data from Member Countries, process and enter into the Regional Knowledge Base.	
			Develop a performance evaluation system based on M&E principles to ensure that data is being collected and archived efficiently and effectively to best-practice standards, and include specific criteria related to provision of data to the Regional Knowledge Base.	Package 7
			Continuously implement the performance evaluation system, and provide regular reports.	NBI

Key Area	Objectives	Sub-Strategies	Actions	Implementation
	To assist to facilitate greater community participation in decision making related to basin management.	Ensure that mechanisms are in place to allow access to relevant data by community groups (for instance, civil society organisations).	Convene a working group to advise on policies for providing access to relevant data by community groups.	Package 7
			Finalise a policy for providing relevant data by community groups and implement the approved policy.	Package 7
Key Area 3: Quality Assurance	To have monitoring and data management processes in place that are of international standard, subject to financial and logistical constraints.	Prepare and implement guidelines and/or procedures for best practice monitoring, applicable to the Nile Basin situation.	Prepare guidelines and/or procedures for best practice monitoring, applicable to the Nile Basin situation.	Package 2
			Implement guidelines and/or procedures for best practice monitoring, applicable to the Nile Basin situation.	Package 2 (and NBI and Member Countries ongoing)
	To produce data and information from the implemented monitoring programs that are reliable, consistent and timely.	Ensure that sufficient water quality laboratory facilities are available at appropriate locations across the basin and are producing results that are accurate and consistent.	Establish a water quality laboratory working group to review the location, capacity and quality of existing water quality laboratories, and recommend a water quality laboratory improvement program that will satisfy the needs of this Strategy as far as analysis of samples from the strategy water quality monitoring network is concerned.	Package 3
			Implement the water quality laboratory improvement program as recommended by the working group.	Package 3

Key Area	Objectives	Sub-Strategies	Actions	Implementation
Key Area 4: Institutional Development and Capacity Building	To have institutional arrangements in place that will facilitate the effective and efficient implementation and ongoing operation of the monitoring programs in the Strategy.	Ensure that appropriate institutional arrangements are in place that will facilitate the effective and efficient implementation and ongoing operation of the monitoring programs in the Strategy.	Review existing and possible future institutional arrangements and develop proposals for enhancements to facilitate the effective and efficient implementation and ongoing operation of the monitoring programs in the Strategy.	Package 1
			Implement agreed changes to institutional arrangements to facilitate the effective and efficient implementation and ongoing operation of the monitoring programs in the Strategy.	NBI (as appropriate)
	To have a dedicated data management group within NBI that can coordinate and manage the operation of the strategic monitoring networks, maintain the NBI Regional Knowledge Base and update the Monitoring Strategy.	Establish a dedicated data management group within NBI that can coordinate and manage the operation of the strategic monitoring networks, maintain the NBI Regional Knowledge Base and update the Monitoring Strategy.	Prepare a proposal for restructuring of NBI to include a dedicated data management group that can coordinate and manage the operation of the strategic monitoring networks, maintain the NBI Regional Knowledge Base and update the Monitoring Strategy.	Package 1
			Implement the proposal for restructuring of NBI to include a dedicated data management group that can coordinate and manage the operation of the strategic monitoring networks, maintain the NBI Regional Knowledge Base and update the Monitoring Strategy.	NBI (as appropriate)

Key Area	Objectives	Sub-Strategies	Actions	Implementation
	To have effective coordination of monitoring among member states in their monitoring efforts.	Promote effective coordination of monitoring among Member Countries by means of a regional monitoring working group.	Establish a regional monitoring working group.	Package 1
			Conduct regular meetings of the regional monitoring working group to discuss monitoring issues.	Package 1 initially (and NBI ongoing)
			Implement recommendations of the regional monitoring working group to improve monitoring coordination among Member Countries.	NBI and Member Countries (as appropriate)
	For the NBI and relevant agencies in the Member Countries to have the capacity, in terms of human resources, to undertake all activities in the Monitoring Strategy effectively and efficiently.	Prepare and implement training courses in all relevant areas of monitoring for involved NBI and Member Country staff.	Prepare training courses in all relevant areas of monitoring for involved NBI and Member Country staff.	Package 1
			Implement training courses in all relevant areas of monitoring for involved NBI and Member Country staff.	Package 1
	To have staff adequately trained to effectively use the technology available.	Ensure that all data monitoring technicians have the understanding and capacity to implement agreed guidelines and procedures	Undertake necessary training for all data monitoring technicians, both initially and on an ongoing basis.	Package 1

Key Area	Objectives	Sub-Strategies	Actions	Implementation
		Ensure that whenever any new technology is introduced into the monitoring programs under this Strategy, adequate training of technicians and other concerned personnel is implemented.	Prepare and implement training programs as new technologies are introduced into the NBI strategic monitoring programs.	Package 1 initially (and NBI ongoing)
	To have effective and efficient monitoring of key parameters as part of Member Countries' programs.	Support Member Countries for development, operation and maintenance of their own national monitoring programs.	Prepare a Member Country monitoring support plan, led by the regional monitoring working group, including both financial support and capacity building.	Package 1
Implement Member Country monitoring support capacity building plan.			NBI and Member Countries	
Implement Member Country monitoring support financial plan.			NBI and Member Countries	
Key Area 5: Financing	To have adequate funding for the effective implementation of the activities under the Monitoring Strategy.	Mobilise funds from international donors and regional economic communities to finance the Monitoring Strategy.	Prepare the case for the benefits of funding the NBI's strategic networks (under this Strategy) and present to donors.	Package 1
			Develop appropriate project "packages" and seek donor funding for the packages.	Package 1

Key Area	Objectives	Sub-Strategies	Actions	Implementation
	To ensure that Member Countries can mobilise adequate funds for their own monitoring programs to provide data to the Regional Knowledge Base	Raise awareness of Member Countries about the benefits of increasing their funding for monitoring in their respective territories.	Make presentations to senior government officials of Member Countries and use other means of communication to encourage them increase their funding for monitoring in their respective territories.	Package 1
		Arrange for NBI to fund the cost of capacity building of Member Countries' technical staff to operate the NBI strategic networks.	Prepare and implement the necessary agreements between NBI and the Member Countries for NBI to fund the cost of capacity building of Member Countries' technical staff to operate the NBI strategic networks.	Package 1
			Evaluate the possibility and advisability of offering project subsidies to Member Countries for monitoring outside the strategic networks.	Package 1

Annex 2: Proposed Strategic Hydrological Monitoring Network

Country	Sub-Basin	River	Station	Latitude	Longitude	Existing?
Egypt	Main Nile 1	Main Nile	Delta Barrages	30.13	31.11	Yes
	Main Nile 3	Main Nile	Jiafra	23.58	32.53	Yes
Sudan	Main Nile 3	Main Nile	Dongola	19.17	30.53	Yes
	Lower White Nile	White Nile	Aulia D/S	15.22	32.50	Yes
	Blue Nile	Blue Nile	Roseires D/S	11.83	34.38	Yes
	Blue Nile	Blue Nile	Khartoum	15.60	32.52	Yes
	Tekeze - Atbara	Atbara	Atbara K3	17.87	34.10	Yes
	Bahr el Ghazal	Bahr el Gebel	Mongola	5.20	31.78	Yes
	Bahr el Ghazal	??	Near Bentiu	9.31	29.83	No
Ethiopia	Blue Nile	Jemma	Near mouth	10.10	38.37	No
	Blue Nile	Dinder	Near Abu Mendi	12.05	36.08	No
	Blue Nile	Rahad	Near Metema	12.60	36.23	No
	Baro – Akobo – Sobat	Baro	Jekawo	8.37	33.77	No
	Tekeze - Atbara	Tekeze	Near Embamadre	13.67	38.20	Yes
	Tekeze - Atbara	Angareb	Near Abdi Rafi	13.69	36.47	No
	Tekeze - Atbara	Goang	Near Metema	13.00	36.17	Yes
Uganda	Lake Victoria	Lake Victoria	Jinja	0.42	33.22	Yes
	Victoria Nile	Kyoga Nile	Kamdini	1.52	32.52	Yes
	Victoria Nile	Victoria Nile	Mbulamuti	1.05	32.95	Yes
	Semliki – Lake Albert	Albert Nile	Panyengo	2.60	31.43	Yes
	Semliki – Lake Albert	Semliki or Albert Nile	Near Fort Portal	0.81	30.16	No

Country	Sub-Basin	River	Station	Latitude	Longitude	Existing?
Kenya	Lake Victoria	Masaita	Masaita	0.48	35.18	Yes
	Lake Victoria	Khybe	Khybe	-1.11	34.82	Yes
	Lake Victoria	Nyando	Nyando	0.58	35.04	Yes
Tanzania	Lake Victoria	Simiyu	MZ/MS Road Bridge	-2.58	33.45	Yes
	Lake Victoria	Mara	Mara Mines	-1.55	34.55	Yes
Burundi	Kagera	Ruvubu	Gitega	-3.37	29.98	Yes
Rwanda	Kagera	Kagera	Akavuguto	-1.97	30.13	Yes
DR Congo	Semliki – Lake Albert	Semliki	Near Butembo	0.64	29.66	No

Total stations: 29 (including 7 new stations)

Annex 3: Proposed Strategic Meteorological Monitoring Network

Country	Sub-Basin	Station	Latitude	Longitude	Existing?
Egypt	Main Nile 1	Abbasiya, Cairo HQ	29.87	30.85	Yes
	Main Nile 2	Beni Swif	27.70	31.10	Yes
	Main Nile 2	Kena	25.48	32.88	Yes
Sudan	Main Nile 3	Argo	19.88	30.69	Yes
	Main Nile 3	Hamrat El-Sheikh	14.80	29.63	Yes
	Tekeze - Atbara	Mekali	16.22	36.50	Yes
	Main Nile 4	Khartoum North	16.05	32.91	Yes
	Lower White Nile	J-Mazmum	12.11	35.11	Yes
	Blue Nile	Haroon	11.80	34.40	Yes
	Baro - Akobo - Sobat	Malakal	9.91	32.08	Yes
	Bahr el Ghazal	Wau	8.16	28.02	Yes
	Albert Nile - Bahr al Jabal	Opari	4.52	32.08	Yes
Ethiopia	Tekeze - Atbara	Maykental	13.54	39.00	Yes
	Blue Nile	Abay Sheleko	11.23	36.52	Yes
	Blue Nile	Werebabo	11.19	39.45	Yes
	Blue Nile	Sebadar	10.40	37.00	Yes
	Baro - Akobo - Sobat	Abdela	8.22	36.16	Yes
	Baro - Akobo - Sobat	Wushwush	7.20	36.10	Yes
Uganda	Victoria Nile	Kotido	3.02	34.10	Yes
	Victoria Nile	Buginyanya	1.28	34.37	Yes
	Albert Nile - Bahr al Jabal	Gulu	2.78	32.28	Yes
	Semliki - Lake Albert	Butiaba	1.82	31.35	Yes
	Semliki - Lake Albert	Kijura	0.82	30.43	Yes

Country	Sub-Basin	Station	Latitude	Longitude	Existing?
	Lake Victoria	Jinja	0.45	33.18	Yes
	Kagera	Rwashamaire	-0.83	30.13	Yes
Kenya	Lake Victoria	Kitale	1.00	34.98	Yes
	Lake Victoria	Nzoia Forest	0.75	34.93	Yes
	Lake Victoria	Eldoret	0.57	35.30	Yes
	Lake Victoria	Alupe	0.48	34.13	Yes
Tanzania	Lake Victoria	Mugumu	-1.86	34.71	Yes
	Lake Victoria	Mwanzi Maji	-2.52	32.90	Yes
	Lake Victoria	Bukoba	-1.30	30.70	Yes
	Kagera	Biharamulo	-2.60	31.30	Yes
Burundi	Kagera	Kirundo	-2.58	30.12	Yes
	Kagera	Gitega-Aero	-3.58	29.92	Yes
Rwanda	Kagera	Muhazi	-1.90	30.43	Yes
	Kagera	Shyanda	-2.53	29.77	Yes
DR Congo	Semliki – Lake Albert	Near Ruhengeri	-1.41	29.40	No

Total stations: 38 (including 1 new station)

Annex 4: Proposed Strategic Water Quality Monitoring Network

Country	Sub-Basin	River / Site	Station	Latitude	Longitude
Egypt	Main Nile 1	Main Nile	Delta Barrages	30.13	31.11
	Main Nile 3	Main Nile	Aswan High Dam (Lake Nasser)	23.58	32.53
Sudan	Lower White Nile	Main Nile	Dongola	19.20	30.60
	Lower White Nile	White Nile	Juba	4.55	31.74
	Blue Nile	Blue Nile	Eddeium	11.04	34.94
	Tekeze - Atbara	Atbara	Kashm Algirba	17.87	34.10
	Baro – Akobo – Sobat	Sobat	Malakal	9.57	31.60
	Sudd	White Nile	Central Sudd	7.00	31.27
Ethiopia	Baro – Akobo – Sobat	Baro	Itang Town	8.11	34.16
	Baro – Akobo – Sobat	Akobo	Near Dima	6.30	35.15
	Baro – Akobo – Sobat	Gilo	Near Pinudo	7.37	34.16
	Blue Nile	Abbey	Sudan Border	11.14	34.59
	Tekeze - Atbara	Tekeze	Near Shiraro Town	14.40	37.93
Uganda	Lake Victoria	Lake Victoria	Jinja	0.42	33.22
	Lake Victoria	Sio	Lakuli	0.31	34.05
	Lake Albert – Bahr al Jabal	Aswa	Atiak-Palabek Road	3.33	32.31
	Semliki – Lake Albert	Nyamugasani		-0.12	29.83
	Semliki – Lake Albert	Albert Nile	Panyengo	2.60	31.43
	Semliki – Lake Albert	Albert Nile	Laropi	3.55	31.81
	Semliki – Lake Albert	Semliki	Bweramule	0.95	30.18
	Semliki – Lake Albert	Lake George		-0.28	29.50

Country	Sub-Basin	River / Site	Station	Latitude	Longitude
	Victoria Nile	Kyoga Nile	Masindi Port	1.69	32.09
	Victoria Nile	Malaba	Kenya / Uganda Border	0.58	34.05
Kenya	Lake Victoria	Nzoia	Rwambwa	-0.12	34.05
	Lake Victoria	Malaba	Malaba	0.52	34.28
	Lake Victoria	Gucha / Migori	Wathonger	-0.58	34.16
	Lake Victoria	Yala	Daraja	0.13	34.08
	Lake Victoria	Sondu / Miriu	Nyakwere	-2.13	34.45
	Lake Victoria	Nyando	Nyando	0.58	35.04
	Lake Victoria	Lake Victoria	North of Rusinga at KP1	-0.35	34.16
	Lake Victoria	Lake Victoria	Offshore Muhuru Bay near border	-0.58	34.08
Tanzania	Lake Victoria	Mara	Kogatende	-1.25	31.42
	Lake Victoria	Mara	Kirumi Bridge	-1.53	33.98
	Kagera	Kagera	Mumwendo	-2.64	30.47
	Kagera	Kagera	Kvaka	-1.25	31.42
Burundi	Kagera	Kanyaru	Mparamirundi	-2.19	29.43
	Kagera	Kagera	Mwaro	-2.20	30.22
	Kagera	Ruvubu	Muyinga	-2.59	30.28
	Kagera	Ruvyironza	Muyange	-2.30	29.51
Rwanda	Kagera	Nyabarongo	Near Kigali	-2.08	30.02
	Kagera	Rusumo	Rusumo	-2.32	30.79
DR Congo	Semliki – Lake Albert	Semliki	Bweramule	0.95	30.18
	Semliki – Lake Albert	Lake Edward	Near western shore	-0.275	29.49

Country	Sub-Basin	River / Site	Station	Latitude	Longitude
	Semliki – Lake Albert	Lake Albert	Near northern end	0.12	31.27

Total sites: 44

Key Area	Actions	Costs (\$'000)										TOTAL		
		Year												
		1	2	3	4	5	6	7	8	9	10			
	1.19 Prioritise sub-basins according to urgency and importance of monitoring needs for watersheds and wetlands monitoring and develop a remotely sensed data		10											10
	1.20 Acquire and interpret data for high priority sub-basins.		45											45
	1.21 Acquire and interpret data for lower priority sub-basins.			45										45
	1.22 Acquire and interpret updated remotely sensed data on a regular basis, depending on priorities.				25	25	25	30	25	25	25			180
	1.23 Finalise evaluation of the use of integrated telemetry based data acquisition systems (such as HYCOS)							50						50
	1.24 Implement the appropriate integrated telemetry based data acquisition system based on the detailed evaluation							200	600	400				1,200
	1.25 Maintain and operate the integrated telemetry based data acquisition system based on the detailed evaluation									80	80			160
	1.26 Carefully scrutinise and evaluate proposals for purchase and application of monitoring techniques and equipment to ensure that they are of the highest			10	10	10	10	10	10	10	10			80
	1.27 Review the set of hydrometeorological and environmental indicators proposed (and presentation format) and get final approval		20											20
	1.28 Determine the stations that will provide the data to compute the indicators.		20											20
	1.29 Compute a baseline set of indicators from existing data.		40											40
	1.30 Annually compute and report the hydrometeorological and environmental indicators		40	10	10	10	10	10	10	10	10			120
	1.31 Periodically review the indicators to ensure ongoing relevance							10				10		20
	1.32 During the review of the proposed strategic networks of monitoring stations make sure that the appropriate data is to be collected.													
	1.33 Determine key hydrologic and meteorological monitoring stations (from the strategic networks) to be used for climate change assessment, including for use		20											20
	1.34 Ensure continuous operation of the key hydrologic and meteorological monitoring stations													
	1.35 Ensure that the appropriate data is to be collected from suitably located sites to support the "technical resolution" of transboundary water issues.													
	1.36 Set up and operate a mechanism for regular monitoring of appropriate global knowledge portals for supplementary water resource information.		10											10
TOTAL	Strategic Monitoring		355	500	700	625	375	690	1,025	905	465			5,640

Key Area	Actions	Costs (\$'000)										TOTAL
		Year										
		1	2	3	4	5	6	7	8	9	10	
2 Data Archiving and Dissemination	2.1 Continue to implement the Interim Data Sharing Procedures so that all data collected by NBI projects are (after quality assurance) entered into the RKB.	Existing commitment										
	2.2 Review the data sharing procedures at regular intervals and update (if necessary) to reflect changing circumstances.	20						20				40
	2.3 Develop protocols for the data collected from the strategic monitoring networks to be entered into the Regional Knowledge Base.	20										20
	2.4 Receive strategic network data from Member Countries, process and enter into the Regional Knowledge Base.			40	60	60	60	60	60	60	60	460
	2.5 Develop a performance evaluation system based on good principles to ensure that data is being collected and archived efficiently and effectively to best-practice standards, and include specific criteria related to provision of data to	40										40
	2.6 Continuously implement the performance evaluation system, and provide regular reports.			10	10	10	10	10	10	10	10	80
	2.7 Convene a working group to advise on policies for providing access to relevant data by community groups.	30										30
	2.8 Finalise a policy for providing relevant data by community groups and implement the approved policy.	20										20
	TOTAL	Data Archiving and Dissemination	130	50	70	70	70	90	70	70	70	690
3 Quality Assurance	3.1 Prepare guidelines and/or procedures for best practice monitoring, applicable to the Nile Basin situation.	50									50	
	3.2 Implement guidelines and/or procedures for best practice monitoring, applicable to the Nile Basin situation.	Costs covered in other activities										
	3.3 Establish a water quality laboratory working group to recommend a water quality laboratory improvement program to support the strategic water quality		50								50	
	3.4 Expedite the implementation of the laboratory improvement program recommended by the working group.			500	500	500					1,500	
TOTAL	Quality Assurance	50	50	500	500	500					1600	

Key Area	Actions	Costs (\$'000)										TOTAL			
		Year													
		1	2	3	4	5	6	7	8	9	10				
4 Institutional Development and Capacity Building	4.1 Review existing institutional arrangements and develop proposals for enhancements to facilitate the effective and efficient implementation and		30												30
	4.2 Implement agreed changes to institutional arrangements to facilitate the effective and efficient implementation and ongoing operation of the monitoring			50											50
	4.3 Prepare a proposal for restructuring of NBI to include a dedicated data management group.		20												20
	4.4 Implement the proposal for restructuring of NBI to include a dedicated data management group			50											50
	4.5 Establish a regional monitoring working group.	20													20
	4.6 Conduct regular meetings of the regional monitoring working group to discuss monitoring issues.	10	10	10	10	10	10	10	10	10	10	10			100
	4.7 Implement recommendations of the regional monitoring working group to improve monitoring coordination among Member Countries.		10		10		10				10				40
	4.8 Prepare training courses in all relevant areas of monitoring for involved NBI and Member Country staff.		30												30
	4.9 Implement training courses in all relevant areas of monitoring for involved NBI and Member Country staff.		20	50											70
	4.10 Undertake necessary training for all data monitoring technicians, both initially and on an ongoing basis.			80			20				20				120
	4.11 Prepare and implement training programs as new technologies are introduced into the NBI strategic monitoring programs.		30	30	80	30	20	5	5	15	5				220
	4.12 Prepare a Member Country monitoring support plan, led by the regional monitoring working group, including both financial support and capacity	10													10
	4.13 Implement Member Country monitoring support capacity building plan.		20	20	20				20		20				100
	4.14 Implement Member Country monitoring support financial plan.		20	20	20				20		20				100
TOTAL	Institutional Development and Capacity Building	40	190	310	140	40	60	55	15	95	15			960	

Key Area	Actions	Costs (\$'000)										TOTAL	
		Year											
		1	2	3	4	5	6	7	8	9	10		
5 Financing	5.1 Prepare the case for the benefits of funding the NBI's strategic networks (under this Strategy) and present to donors.	10											10
	5.2 Develop appropriate project "packages" and seek donor funding for the packages.	50											50
	5.3 Make presentations to senior government officials of Member Countries to encourage them increase their funding for monitoring in their territories.	20											20
	5.4 Prepare and implement the necessary agreements between NBI and the Member Countries for NBI to fund the strategic monitoring identified in this		20	10									30
	5.5 Prepare and implement the necessary agreements for NBI to fund the cost of capacity building of Member Countries' technical staff to operate the strategic		20	10	10								40
	5.6 Evaluate the possibility and advisability of offering project subsidies to Member Countries for monitoring outside the strategic networks.					20							20
TOTAL	Financing	80	40	20	10	20							170
0 Program Management	0.1 Program management support (by consultants), exclusive of costs covered elsewhere under specific activities	100	100	100	100	100							500
TOTAL	Program Management	100	100	100	100	100							500
GRAND TOTALS	GRAND TOTALS	220	860	1,030	1,520	1,350	1,000	830	1,110	1,070	550		9,500

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