ACTIONS PROPOSAL

Action Group : 1.D Protect and restore ecosystems and forests, including coastal and marine impacts, and combat desertification
Coordinators(s) Partenariat régional pour la Conservation de la Zone côtière et marine (PRCM)
Group members : TNC, UCAD University, Office des Lacs et Cours d'Eau (OLAC), National Parks Director/Ministry of Environment, Sahara and Sahel Observatory, Université Gaston Berger de Saint-Louis, United Nations Convention to Combat Desertification (UNCCD) , Conservation International, Action Platform for Source-to-Sea Management (S2S Platform)
Pilot Group observer : University Cheikh Anta Diop de Dakar (UCAD) Sciences Academies, ANSTS, AAS & TWAS

The approach chosen by the action group 1.D has been, instead of just looking at individual components, to consider the functioning, productivity and management of such complex water/land/climate systems as a whole and to take them into perspective with an emphasis on the inter-relationship and interdependencies of ecosystems and provided services as well as human components across spatial and temporal scales. In such complex systems, as described in several programs, there are trade-offs as well as facilitation and amplification between the different components. Such proposal within WWF9 Action 1D will attempt to explore inter-relatedness and interdependence among water with SDG **6.6**, biodiversity and ecosystems with SDG 15.1 and 15.3 and land/ocean/climate interface with SDG **14.1** and **14.2**.

ACTION 1: Strengthen policies and governance for water security from source-to-sea

Overall Objective: Emphasis has been put on key components of global water resource systems, including sources of water, lakes, wetlands with a link of Ramsar Regional Initiatives (IRR) that are interacting with rivers and groundwater resources. All those water systems up to their interface with coastal waters are suffering nowadays from the deterioration of their water quality and the integrity of their ecosystems in the context of climate change, in large part due to fragmented governance and a lack of coherence in management policies. Hence the Ecosystem-based approach to water resources that considers the inter-connections between ecosystem types needs to be extended to Policy and Governance for water security from source-to-sea.
The proposed action could be replicable and scaled up *in the sense that examples exist all over the world, including in Africa (western, eastern and central regions), as well as in Asia, in the Americas, in Europe and elsewhere around the world.*

Overall purpose and expected results: The water security is ensured though strong ecosystem-based policies and governance.

Overall SDGs Alignment: *The proposed action within 1D is fully considering SDG's linkages with SDG 6.6, SDG 15.1 and 15.3 and SDG 14.1 and 14.2.*

Coherence with other Priorities:

Key messages:

1. Implementation of the sustainable development plans and programs that consider terrestrial, freshwater, coastal and marine ecosystem individually becomes haphazard, fragmentary, and disorderly and their environment will remain fragile, making the sustainable use of their resources even more difficult to achieve.
2. to inform and guide the process of improving the governance of ecosystems from source-to-sea for the development and implementation of policies, programs, activities and actions to be undertaken, with the widest possible representation of the communities in these basins.
3. Proposal for the development of integrated source-to-sea_management "platforms" that will be supported by collective actions by stakeholders to improve the coordinated governance of these source-to-sea systems as a strategic means of their sustainable development over long periods of time.
4. Examine the evolution of global experiences in the management of source-to-sea systems, both in developed and developing countries, taking into account actions that underline the value of their resources; their improvements and sustainable use, the resolution of potential conflicts in the use of these resources; the reduction of environmental stress, the rehabilitation and restoration of their habitats; the protection of existing resources from damage caused by extreme events, while taking preventive adaptation and mitigation measures and improving the overall health of source-to-sea systems including wetlands and other Ramsar Regional Initiatives (RRI).
5. Coastal and marine ecosystems, as well as coastal aquifers must be subject to appropriate protection and management measures and require increased monitoring.

PROJECTS INCLUDED ***In order of priority and level of impact***	**OBJECTIVE**	**DESCRIPTION AND PURPOSE**	**EXPECTED RESULTS**	**SDGs ALIGNMENT**	**IMPLEMENTATION**	**PARTICIPANTS AND STAKEHOLDERS REPRESENTATIVENESS**	**REPLICABILITY IN OTHER CONTEXTS**	**REGIONAL REPRESENTATIVENESS**	**POTENTIAL OVERLAPPING OR COHERENCE WITH OTHER AGs**
Project 1.1 - Shared aspects in Action 1.D.1	Increase adoption of governance that considers linkages between terrestrial, freshwater, coastal and marine environments.	Multi-stakeholder dialogue will be supported to facilitate the development of governance that	Strengthened coordination between sectors and cooperation between upstream and downstream stakeholders.	This action is relevant to SDG 2, 6, 7, 8, 9, 11, 12, 13, 15, 16.	The Action Platform for Source-to-Sea Management is one pathway to implementing this Action.	Action Platform for Source-to-Sea Management is a multi-stakeholder, cross-sectoral platform.		The Action Platform for Source-to-Sea Management welcomes members from all regions.	

		embeds cross-sectoral coordination and upstream-downstream cooperation in the management of terrestrial, freshwater, delta, coastal, nearshore and ocean ecosystems that considers the linkages from source to sea.	Policies that improve ecosystems to combat desertification and achieve drought resilience. Economic and environmental policy development that considers the interlinkages between terrestrial, freshwater, delta, coastal, nearshore and ocean ecosystems and addresses source-to-sea systems. Water quality is improved through cooperation on management of the land-water interface and strengthening governance of shared resources through sharing knowledge, etc. Integrated management across ecosystems with support of research, training, and tools.						
Project 1.2 - Implementation of the RAMSAR Convention Guidelines	A: Develop and support implementation at national level of policies for the management of marine and coastal wetlands, in relation with Ramsar Convention and		West Africa Regional management policy on coastal and marine area.	SDG 14.2	WACOWET states, PRCM, WIA	***PRCM and others***	Yes, In all large marine and coastal ecosystems/eco-regions	West Africa	Ramsar Regional Initiatives (RRIs) (Ramsar Convention)

	Regional Ramsar initiatives B: Identify main coastal wetlands and of the implementation of Protected Marine Areas with a view to provide natural solutions for adaptation to climate change impacts and to reduce pressure of anthropogenic actions. C: Protect coastal ecosystems, especially against pollution and erosion, *D:* Promote mangrove ecosystems protection to enhance their important role on carbon sequestration and thus mitigation of Climate Change. They provide major ecosystem functions, including water filtering and serve as a refuge for much of coastal biodiversity.								
Project 1.3 - Governance and integrated management of lakes, river basins, wetlands and coastal areas at Risks in the context of climate change	A: Implementation of the action dealing with such complex water/land systems will put an emphasis on interlinkages among ecosystems and their services and will require a source-to-sea		• An holistic assessment and management approach focusing on the water/land linkages comprising a drainage basin, focusing on facilitating sustainable ecosystem goods	6.5 ,6.6, 14.2, 15.1, 15.9	• Better cooperation, collaboration and coordination between the different major water-related sectors at national, regional and international levels to be considered • Better sharing of	OLAC ILEC UNEP MEDD UGB – UCAD OSS In cooperation with other proposed actions within 1D	• This action is replicable in all lake, river and wetland basins and coastal areas facing the same constraints and opportunities With governance improvements regarding policies,	This action will require different institutions at the national and local level, and regionally for transboundary water systems, to collectively join and share their management	A link can be established with the action group 1F, 2E, 3A, 3B, 3C, 3E, 3F, 4B, and 4E

	approach. B: Sustained and long-term efforts to make gradual and continuous improvement such interdependent systems will require governance of lakes, river basins, wetlands and coastal areas at Risks, including sustained efforts to integrate institutional responsibilities, policy directions, stakeholder participation, scientific knowledge, technological opportunities while taking into account funding opportunities and constraints. C: Development of integrated water systems platform process, including research punctuated by training actions at different levels and at different scales on the field with involved partners could be undertaken. Relevant information and management manuals could be developed, if appropriate resources are mobilized. D: Development/revision/implementation of		and services from the ecosystems comprising the basin, is implemented • The interlinkages among ecosystems and their services are defined and considered in management plans • An holistic, integrated approach to managing inland freshwater resources, their basins and their ecosystem services, focusing on improved governance actions considering the mixture of complex scientific/management challenges associated with the interlinkages/ interactions between the lentic and lotic water systems typically comprising a freshwater drainage basin is implemented on a global scale • Lakes, rivers and wetlands and their basins, and coastal areas, are better managed and protected against pollution and erosion • A comprehensive and integrated water systems platform process similar to that		management experiences, including their positive and negative aspects, at the regional, national and local level as appropriate	and in other Action Groups	institutions, participatory approaches, relevant monitoring and scientific studies, and sustained funding, this action can be considered for integrated management and sustainable use of virtually all freshwater systems, their downstream coastal areas and the associated ecosystem goods and services	experiences for better synergy in their actions at all three governance levels	

	management and protection plans for coastal and marine ecosystems: *E*:. Protect coastal ecosystems, including against pollution and erosion, F: Participate in the governance of marine and coastal wetlands G:. Sustainable management of lake and reservoir ecosystems in relation to wetlands, deltas and lagoons considering the inter-relationship with rivers and groundwater resources in a global environment marked by climate change.		developed for Integrated Lake Basin Management (ILBM) is developed and widely utilized • Coordination and collaboration between drainage basin stakeholders/institutions is strengthened • Management and protection plans for coastal and marine ecosystems and their associated upstream inland water systems are developed/revised/implemented • Sustainable integrated management platforms (e.g., IWRM; ILBM) of interdependent but interacting ecosystems (lentic [lakes, wetlands] and lotic [rivers, tributaries], groundwater, etc.) are implemented in the context of a global environment marked by climate change, with due consideration of its associated environmental and socioeconomic impacts • Utilization of demonstrated integrated management platforms (e.g., ILBM, whose application has						

			already been demonstrated in South and South East Asian and African countries) to governments, academia, business and civil society is encouraged/supported by governments • Development and convening of relevant training courses in integrated water management platforms are developed, and experiences shared regarding freshwater system management efforts, is undertaken on a regional and national level Improvement of inland water system governance on a basin scale, including development of relevant training regarding institutional capabilities, policy development and application, technological/non-technological options, monitoring needs, encouragement of public participation, and ensuring sustained and adequate funding is available for such purposes, is						

			undertaken at regional, national and local levels, as appropriate						

Project 1.4 - Sustainable management of wetland ecosystems and forests, including coastal and marine areas, as well as the fight against desertification and water shortages	With two major challenges: Populations needs and resilience and imperatives for development.
	
	The questions that arise in this regard are water availability and access to water quality. Hence the need to rethink policy implementation mechanisms notably by addressing aspects related to cooperation on shared management resources (water, land and biodiversity) as well the ways to integrate different policies at national and regional level, sharing of knowledge, information and resources.
	
	Following activities could be proposed in order to stimulate reflection on sustainable development.
	
	A: Ecosystem based Management with establishment of regional mechanism to manage and monitor the use of natural agricultural
			A:
			• Sectoral policies are integrated
			• Regional standards are established and monitored
			• Research/innovation framework is created /or strengthened
			• regional observatory set up
			• basic Infrastructures de base harmonized
			• Trainings /Sound Human resources available
			B:
			• Regional control mechanisms put in place
			  • Regional or Community monitoring and evaluation system set up
			  • Ecosystem approach implemented in community policies (planning)
			C:
			  • Regional networks are created and / or strengthened
			  • The legal and
				SDG 2.4:
				
				SDG 6
				
				SDG 6.5
				
				SDG 6.6
				
				SDG 15.1:
					1- effective integration of the conservation of fragile ecosystems in development goals and improve cooperation in the management of shared resources: reconciling development priority and ecosystem protection
					2- Carrying out an Environmental-Economic Accounting for a better understanding of the ecosystems ‘role in development (highlight the interrelationship between ecosystems and economy)
					3- 3- Building and sharing databases
					• Training and capacity building
						DPN Senegal
						MEDD
						OLAC
						UNEP
							• Replicable in all cases ecosystem services damage leads to economic losses, thus negatively impacting communities	Agriculture, water, health, environment, energy, security sectors’ stakeholders
								
								These actions can be implemented in all major international river basins in the Least Developed Countries and areas where access and sharing of aquatic resources is a source of conflict.
									Complementary with 1.B; 1.E; 1.F; 2.D; 2.E; 3.C; 4. A

	systems B: Policy Integration: Increased consideration of ecosystem approach and forest protection at community development levels. C: Access and sharing of resources with Improving funding mechanisms for regional wetland conservation policies, forest protection and desertification control.		institutional framework is strengthened • Innovations are recorded • Exchanges are strengthened						

ACTION 2: Tools and Knowledge Management for ecosystem-based approaches

Overall Objective: Ecosystem-based approaches to water resource management require information from many disciplines and actors, beyond conventional measures of water quantity and quality. Moreover, understanding the linkages among different ecosystems in a particular freshwater basin (e.g., drylands, forests, wetlands, coastal and marine) can help decision makers achieve goals Collecting (or modeling), analyzing, and communicating this information is vital for both monitoring (e.g., SDGs) and decision making, but the resources for data acquisition and knowledge management are insufficient, and data providers and decision makers are not working closely as they could.

This action focuses on bridging these "gaps" by promoting: 1) modern methods and tools that provide or synthesize relevant data for ecosystem-based management and 2) networks to share experience and build capacity in decision-support. It will feature innovative approaches, such as using remote sensing as a complement to in-situ monitoring, and will also highlight examples from around the world where data is being transformed into knowledge to help decision makers better incorporate ecosystem protection into water resource management

Overall purpose and expected results: Tools and Knowledge for ecosystem-based approaches are set-up at all geographical scales

Overall SDGs Alignment: *The proposed action within 1D is fully considering SDG's linkages with SDG 6.5, 6.6, SDG 15.1 and 15.3 and SDG 14.1 and 14.2*

Coherence with other Priorities:

Key messages:

- *Les politiques et stratégies nationales / régionales de gestion des ressources naturelles (y compris les ressources en eau) doivent accorder une importance particulière à l'acquisition et à la mise à disposition des données et informations fiables pour une meilleure mise en œuvre de leurs plans d'actions.*
- *Il est primordial d'affecter un financement adéquat et durable pour améliorer les connaissances et la gestion des ressources naturelles.*
- *Encourager l'utilisation des technologies nouvelles en complément aux techniques traditionnelles pour faciliter l'acquisition des connaissances sur les écosystèmes*
- *Encourager le développement et la mise en place d'un système d'information d'échanges et de partage de données cohérentes et de suivi des indicateurs*

PROJECTS INCLUDED ***In order of priority and level of impact***	**OBJECTIVE**	**DESCRIPTION AND PURPOSE**	**EXPECTED RESULTS**	**SDGs ALIGNMENT**	**IMPLEMENTATION**	**PARTICIPANTS AND STAKEHOLDERS REPRESENTATIVENESS**	**REPLICABILITY IN OTHER CONTEXTS**	**REGIONAL SCOPE**	**POTENTIAL OVERLAPPING OR COHERENCE WITH OTHER AGs**
Project 2.1 – Improvement of knowledge for the management of wetlands and coastal and marine ecosystems	Improvement of knowledge for the management of wetlands and coastal and marine ecosystems	collect and widely share data, knowledge and experience for the coordination of governance actions in important biophysical environments	Master's thesis on wetlands are funded and carried by laboratories or interdisciplinary research groups of universities, As result a better control of the constraints in situ is achieved, A reliable database, to feed the controlled governance of	SDG 6.5, 6.6, SDG 15.1, 15.3, SDG 14.1 and 14.2	Gaston Berger University of Saint Louis UGB laboratory, UFR and	Good involvement of universities, civil society, youth associations, etc.	Senegal research teams	Good coordination between technical departments and, the various actors, to master the sustainability of the fixed objectives.	A link can be established with the action group 1F, 3A, 3B, 3C, 3E, 4B, and 4E.

			marine and coastal wetlands in West Africa is established						
Project 2.2 – Improving coastal and marine ecosystems, coastal aquifers and wetlands monitoring through the use of Innovative technologies	Promote the use of modern tools (remote sensing, remote transmission, etc.) for monitoring coastal and marine ecosystems, coastal aquifers and wetlands in order to deepen knowledge for better protection and enhancement of resources	Marine and coastal ecosystems and wetlands are subject to all kinds of degradation. Their protection and rehabilitation constitute a major and permanent concern. The insufficiency of information and knowledge, the lack of awareness of the local populations, sometimes added to the absence of consultation between the different state organizations appear as factors unfavorable to their sustainable management. The use of new technologies contributes to the acquisition and sharing of knowledge for better ecosystem management, through: A: Collecting and making available reliable data and information B: Monitoring the impacts (direct and indirect) of rising sea levels, changes in the quality of water bodies, and their populations of flora and fauna C: The development of planning tools for better ecosystem management	• Reliable data and information are available • Monitoring and evaluation tools are developed for better coastal and marine ecosystems, coastal aquifers and wetlands management Knowledge of ecosystems is improved through modern monitoring system	SDG6.6 *and* 15.1.	Better coordination between the different sectors at national, regional and international levels will be considered	OSS, UNCCD, OLAC	This action is replicable in all ecosystems which are facing the same constraints for their management	*Limit of the ecosystem (where considered over the world)*	A link can be established with the action group 1F, 3A, 3B, 3C, 3E, 4B, and 4E.
Project 2.3 – Build capacity for Freshwater Health Index (FHI) management	Support resource managers and other stakeholders in applying the Freshwater Health Index to assess and plan for improvements to ecosystem health, services, and water governance in their basins/catchments	The Freshwater Health Index (FHI) is a tool and process developed by Conservation International (CI) and partners, with the goal of providing a common understanding of basin health across three dimensions: ecosystem vitality, ecosystem services, and water governance. Using a comprehensive set of indicators, the FHI offers a baseline assessment of current conditions at the basin and sub-basin scale, encouraging data transparency and intuitive information for a diverse range of users. The FHI has been applied at various scales and contexts in Africa, Asia, and Latin America and is now poised to be scaled up and adapted. Free software and user manuals in multiple languages are already available, thus CI commits to the following and hopes to engage more partners in:	In person or virtual trainings held in multiple countries; MOOC available online in late 2021; FHI's User Manual available in at least two new languages (e.g., French and Arabic) by 2021	SDG6.5, 6.6, 15.1-15.5		*Conservation international and US NASA*	The FHI has already been implemented in a number of countries and contexts, and was designed to be adapted to basins around the world.	Global	Potentially 1.E, 1.F, 3.A, 3.E, 3.F, 4.B, 4.E

		A:Delivering in-person technical trainings on the software and methods (hosted by, e.g., universities, Ministries of Water Resources, Regional Economic Communities); B:Developing a Massive Open Online Course (MOOC) to offer similar trainings for remote participants; C:Translating the User Manual, survey instruments, and guidance documents into additional languages; D:Improving technical capabilities (within the tool) and guidance around constructing future scenarios (climate change, land use change, water allocation, dam development) and tradeoff analysis E:Continue to refine the FHI tool and methods through new applications, and share these results through multiple media (reports, websites, videos, journal articles) F:Encourage donors and multilateral lending agencies to adopt the FHI in the water resource management projects they support; G:Work closer with decision makers at national and sub-national scales to connect the FHI to planning and conservation efforts (e.g., source water protection) ; H: Deepen engagement with private sector actors who can apply the FHI in their source watersheds, as a means of guiding water stewardship investments. http://www.freshwaterhealthindex.org							
Project 2.4 – Supporting countries in implementing nature-based drought risk mitigation measures	Supporting countries in implementing nature-based drought risk mitigation measures	UNCCD is supporting countries in the process of developing their national drought plans and drought preparedness systems. 70+ countries are implementing national drought plans with a strong emphasis on risk mitigation and preparedness UNCCD together with partners, WMO, FAO, UNEP-DHI, EU-JRC,	The outcome document for the UN Summit to adopt the Post-2015 Development Agenda makes a clear reference to "**drought**" as one of	*SDG; 15.3*	Stronger coordination between the different sectors at national, regional and international levels will be considered	*UNCCD, WMO, FAO, GWP, University of Nebraska, UNEP-DHI, EU JRC*	This is a global project which covers 70+ countries from all regions.	Africa, Latin America and the Caribbean, Asia, Central and Easter Europe are represented.	this overlaps with AG 1.

		NDMC and GWP, are committed to *developing countries' capacities in the use of a toolbox (interactive online platform), with a range of effective technical and policy options to help countries manage land sustainably to mitigate drought risk.* *https://knowledge.unccd.int/drought-toolbox*	the key issues to address to ensure sustainable development. Most directly, "**drought**" is noted in target 15.3 "by 2030, combat desertification, restore degraded land and soil, including land affected by desertification, **drought** and floods, and strive to achieve a land degradation-neutral world". Implicitly, drought aspects are also relevant in targets related to the substantial increase of water use efficiency and reducing the number of people suffering from water scarcity (target 6.4); strengthening the capacity for adaptation to climate change, extreme weather including **drought** (target 2.4); strengthening resilience and adaptive capacity to climate-related hazards and natural disasters (target 13.1); and reducing exposure to climate-related extreme events as						

			well as social and environmental shocks and disasters (target 1.5). Attaining these and other environmental targets are imperative to increasing societal and environmental resilience to drought and associated risks.						
Project 2.5 - Action Platform for Source-to-Sea Management	Disseminating Source-to-Sea best practices	The Action Platform for Source-to-Sea Management is a multi-stakeholder initiative to improve the management of land, water, coastal and marine linkages by bringing together freshwater, coastal and marine experts to contribute to global knowledge generation on source-to-sea interconnections, develop knowledge resources and promote best practices through training and capacity building	Enhanced uptake of source-to-sea best practices resulting in advancements in the implementation of the source-to-sea approach to management	SDG 2, 6, 7, 8, 9, 11, 12, 13, 15, 16.	Partners of the Action Platform for Source-to-Sea Management implement project to pilot and develop source-to-sea best practices and these are captured in knowledge products that can be shared broadly through the Platform's communication channels, trainings, webinars and at national, regional and international events.	SIWI and S2S Platform members. The S2S Platform is open to all organization that are committed to advancing the source-to-sea in policy and practice.	The S2S Platform has members that work in most places in the world, which provides opportunities for replication of best practices that are developed in one location to another location.	Global	A link can be established with project 1 of action 1 of the AG 1B.
Project 2.6 - Tools for Developing ecosystem-based NBS projects	*Building the Business Case for Nature-Based Solutions in source watersheds*	Demonstrate decision support tools that integrate spatial information and algorhythms to identify areas of high likelihood for positive ROI investments using nature based solutions • Share guidelines and case studies on how to create economic analysis that target optimum investments in NBS in source watersheds • Learn how to create collective action platforms and use the Water Funds Toolbox.	Increased awareness of how to identify value of ecosystems to water security to create greater certainty when investing in ecosystems to solve water security problems	SDG 6.6, 6.5 15.1-15.5	Publish a compendium of case studies, increase awareness of current tools	NC, IDB UNCCD AFD and city partners	replicable under specific ecosystem and water security situations to be explained in project; currently 44 water funds using this approach on 4 continents	case studies are from all regions, including Africa	Likely connections to 4A- financing for water security

ACTION 3: Demonstrate the economic case for nature based solutions to deliver water security and biodiversity

Overall Objective: Large scale, low cost interventions to provide water security to billions of people are critically needed. Nature has inherent scale and is an often overlooked solution. Without ecological integrity, water security cannot be achieved, and the goals of SDG 6 will not be met. In addition, healthy ecosystems provide direct benefits to climate mitigation, adaptation, rural livelihoods, and biodiversity. Thus, nature is the power booster investment that contributes to multiple SDGS, and provides the links between water, agriculture, energy, and rural development. The challenge lies in how to effectively design, deliver and fund ecosystem investments such that these nature-based solutions can be replicated in a consistent and sustainable manner. This action will be to review the economic case for various context-specific nature-based solutions to achieve improve water security, demonstrate successful replicable applications, explore necessary enabling conditions, and create an alliance to advance cutting edge practices and tools needed to cost-effectively deploy and scale nature based solutions.

Overall purpose and expected results: The purpose of this action is to showcase where ecosystems are being valued and are delivering tangible benefits to water security. The expected result is increased awareness on how to identify specific ecosystem services that support water security, how to identify the cost/benefits of managing these systems for water security outcomes, and how to structure delivery through collective action.

Overall SDGs Alignment: *The proposed action within 1D is fully considering SDG's linkages with SDG 6.5, 6.6, SDG 15.1 and 15.3 and SDG 14.1 and 14.2*

Coherence with other Priorities: Nature-based solutions that support and derive from healthy ecosystems underpin water security and biodiversity outcomes. They also provide benefits to rural development and climate adaptation as well. To be effectively incorporated into investments, a specific suite of tools, mechanisms and approaches needed to be cross-integrated int

Key messages:

1 Nature-based solutions contribute to resilient water security in a cost-effective manner in a wide variety of contexts. On the ground results in Africa have shown that nature-based solutions can be up to six times more cost-effective than the next best grey infrastructure solution.

2 Nature-based solutions provide additional tangible benefits such as rural livelihoods, biodiversity, carbon mitigation therefore help contribute directly to several SDGs

3 Nature-based solutions can be driven by community-level collective action but require enabling conditions to succeed at scale. Nonetheless, there a many specific examples where this scaling is happening that can serve as models for others.

PROJECTS INCLUDED *In order of priority and level of impact*	**OBJECTIVE**	**DESCRIPTION AND PURPOSE**	**EXPECTED RESULTS**	**SDGs ALIGNMENT**	**IMPLEMENTATION**	**PARTICIPANTS STAKEHOLDERS** **INCLUSIVITY**	**REPLICABILITY IN OTHER CONTEXTS**	**REGIONAL SCOPE**	**POTENTIAL OVERLAPPING OR COHERENCE WITH OTHER AGs**
Project 3.1 – Promotion of tools and practices for a better management of aquatic resources.	Promotion of tools and practices for a better management of aquatic resources.	A: mobilizing water resources for soil protection and rehabilitation, B:Promote climate-smart agriculture for resilience building in regions with low water endowment, C:Promote the use of new technologies for the mobilization/saving of water resources, D. promote the use of modern tools (Remote sensing, Meteorology, etc.) for monitoring soil degradation, E: promote biological control (quickset hedges, biological				***O2S, UNCCD***			

		fixation, use of suitable/halophyte species, etc.) **Promotion of ancestral practices for the sustainable management of aquatic resources in arid zones** Clarify links to UNCCD work on land degradation neutrality/ drought preparedness							
Project 3.2 – Marine and coastal protected areas, mitigation tool toward climate Global climate changes	*Promote the conservation of sensitive coastal and marine ecosystems by the establishment of protected areas*	This action consists in protecting marine and coastal areas, in particular sensitive ecosystems against climate change, pollution, coastal erosion, the degradation of natural resources and habitats. These protected areas will serve as laboratories for the development of coastal areas, particularly in terms of water resource management and the protection of biodiversity. They should constitute appropriate natural solutions to adapt to the impacts of Climate Change and reduce the pressure of anthropogenic actions The main activities are: - Identification of sensitive sites through characterization studies - Promote the establishment of marine and coastal protected areas around these sensitive sites - rationalize the exploitation of coastal and marine resources - rationalize the exploitation of coastal aquifers	Rate of implementing marine protected areas. Increase of IUCN IV category of Protected area to promote coastal and marine biodiversity and sustainable use of natural resources as management objective;	SDG 6.6; 14.1; 14.2	Coastal zones	***O2S & PRCM*** Wetlands international PRCM Abidjan Convention 13 Western Africa countries	Yes	WAMER (West African marine Ecoregion)	Network WACOWET Ramsar Regional Initiative along with 13 Western Africa Countries
Project 3.3 – Mangrove and Resilience of Western Africa	Protect Mangrove forests in order to strengthen	In West Africa, the Mangrove plays an important role in carbon sequestration, in water filtration and in temperature regulation. It	Improving restoration programs More resilience of	SDG 14.2; 15.2;15.3	PRCM , WIACO, Abidjan Convention, CRRC (Coastal Resilience Research Consortium) USA-PRCM-	***PRCM***	Yes	West Africa	Consistency with the West African regional mangrove charter (Additional Protocol to the Abidjan

communities.	the resilience of coastal areas and protect natural resources	contributes significantly as natural solutions to mitigating climate change, combating desertification and protecting against marine flooding. The proposed action consists of: - Map the mangroves and producing characterization studies for these mangroves - protect the areas of undegraded mangroves in sensitive sites - restore degraded mangroves with the support of the coastal communities that live there - develop alternative activities to the unsustainable exploitation of mangroves for the benefit of the populations - Sensitize communities and economic actors on the interest of preserving these mangroves - Establish appropriate national regulations for the protection of mangroves	coastal communities. Increasing fish stocks		Nigeria-Ghana-Ivory Coast-Senegal Experts and research institutions				Convention)
Project 3.4 - African Source Water Protection	Launch African Source Water Protection Partnership bringing public and private sector actors to implement NBS at scale	Scientific research entitled Beyond the Source have shown that there are clear benefits of investing in source water protection as a way sustaining water supply to urban communities. This activity will: 1) Showcase current efforts in source water protection in Nairobi and Cape Town 2) Document the business case for NBS used in source water protection in multiple contexts globally 3) At the World Water	Activate the alliance of communities and organizations working to protect their catchments and water towers.	SDG 6. 4, 6.5, 6.6	The cities of Nairobi and Cape Town are leading in implementation source water protection and will share business case and implementation results to date. 8 other communities are developing source water protection programs. In September, this alliance held a seminar on Source Water Protection. For the Forum, we will show results to date and make commitments for source watershed protection for the future.	Nature Conservancy with AFWA- African Water Association, WASREB- Water Services Regulatory Board of Kenya and Nairobi City Water & Sewerage Company; AFD	Built on experiences in Latin America, this is also replicable in Asia	Africa	▪ **4.A.** Mobilize additional financial resources and promote innovative funding **3.A.** Implement IWRM at all levels ▪ **2.D.** Ensure sustainable agricultural practices, including water productivity and efficiency, reduction of diffuse pollution, and decreased food losses

		Forum in Dakar, Senegal in 2021 launch a Source Water Protection partnership enhance coordination between partners in/involved source water protection areas. Eminent representatives of key organizations and stakeholder agencies in Africa will be invited to serve in the partnership and enhance coordination of Source Water protection investments. This will facilitate channeling of several corporations' capabilities, financial resources, and geographical reach together toward solving critical issue facing quality water availability for people and nature							
Project 3.5 - NBS for water and sanitation	How can nature-based interventions be used to help billions of people access sanitation and higher quality water?	The project will disseminate findings from literature review publication and through release of website with a decision support system + fact sheets + case studies; (IWA, TNC). The IWA Task Group on NBS for Water and Sanitation and the Sanitation for and by Nature working group will be releasing an open access publication that can be shared at the Forum and further piloted.	Identify how ecosystem management can support improved water quality and sanitation management.	SDG 6.6; 6.a, 6.b	Release of website with a decision support system + fact sheets + case studies; (IWA, TNC).	IWA, TNC	Replicable where there are specific ecosystem and site specific values, to be demonstrated in the project		A link can be established with the Action 3 of the AG 1.B
Project 3.6 – Ecosystem base approaches to combating water scarcity	Demonstrate the water quantity benefits that flow from nature-based solutions	The working group conducted a scientific review to assesses the opportunity for nature-based solutions to reduce the water availability and flooding risks associated with land use change and climate change. The Working Group will provide a set of principles and guidance for	Demonstrate the basis for using ecosystem based NBS for addressing climate adaptation and water scarcity.	SDG 6.4, 6.5, .6.6	Publish results of science assessment, present case studies, train practitioners on use of guidance.	City of Cape Town, AGWA, TNC, Stanford Nat Cap project?	Principles help guide application in all cases where increased flooding or water scarcity affect local populations	Case studies and science are global	A link can be established with the Action 2 of the AG 1.F

		decision support to evaluate when considering NBS for water quantity objectives to be featured as part of a broader toolkit in support of NBS tools/deployment							
Project 3.7 - The Initiative for Sustainability, Stability and Security in Africa (3S Initiative)		The Initiative addresses the interlinked issues that threaten the sustainability, stability and security of the African continent: degrading cropland, rising youth unemployment and increasing migration from rural areas.	The purpose is to create **two million green jobs** for vulnerable groups, in particular young people, migrants, displaced populations and individuals targeted by extremist groups, through the investment in the restoration and sustainable land management of **ten million hectares of degraded lands** by 2025	SDG 15. and 8	Cooperation among countries and sectors	African Union Development Agency (AUDA-NEPAD) among others. UNCCD	to be completed	to be completed	Some coherence with the AG 2.C could be established.