Scaling up wetland conservation, wise use and restoration to achieve the Sustainable Development Goals

JULY 2018 ————







Wetlands are essential to achieve the Sustainable Development Goals

Wetlands are essential to human wellbeing, inclusive economic growth and climate mitigation and adaptation. They provide water for human consumption and agriculture. They protect our shores and help make cities and settlements safe and resilient. They are the Earth's greatest natural carbon stores. They support biodiversity and abundant and unique nature. They are vital to mitigate and adapt to climate change. They provide sustainable livelihoods and are essential to human health and wellbeing. Wetlands provide myriad benefits and services.

By definition, wetlands are land areas saturated with water, either permanently or seasonally, such that they take on the characteristics of a distinct ecosystem. Inland wetlands include lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatlands, flood plain and oases, including other human-made wetlands such as rice paddies, saltpans and farming ponds. Coastal wetlands include estuaries, deltas and tidal flats mangroves and coastal marine areas as well as coral reefs.

The multiple benefits and services provided by wetlands are essential in achieving the Sustainable Development Goals (SDGs). The SDGs represent an ambitious agenda to eradicate poverty and achieve sustainable development by 2030. This 2030 Agenda for Sustainable Development provides a comprehensive roadmap for a sustainable future. Seventeen goals, each with a number of concrete targets, translate this programme into action.

This report highlights the critical role of wetlands in relation to the SDGs, and more specifically underscores the importance of conserving, using wisely and restoring this precious resource. The wise and sustainable use of wetlands as guided by the Ramsar Convention on Wetlands will be critical in helping countries achieve their SDG targets. The Ramsar Convention's fourth Strategic Plan (2016-2024) identifies four overarching goals and 19 specific targets that directly support achievement of the SDGs as well as the Aichi Targets set up by the Convention on Biological Diversity. The integrated nature of the SDGs, Aichi Targets and the Ramsar Strategic Plan call for increased integration and synergies across existing multilateral agendas.

Implementation of the Ramsar Strategic Plan contributes to achievement of the SDGs

4th Ramsar Strategic Plan 2016-2024

GOAL 1: Addressing the Drivers of Wetland Loss And Degradation

- **T1** Recognizing wetland benefits in sectoral strategies
- T2 Ensuring water for wetland ecosystem needs
- T3 Applying wise use guidelines in private and public sectors
- **T4** Controlling or eradicating invasive alien species

Goal 2: Effectively Conserving and Managing the Ramsar Site Network

- T5 Maintaining ecological character through integrated management
- **T6** Increasing wetland area under Ramsar designation
- T7 Addressing threats to ecological character

Goal 3: Wisely Using All Wetlands

- T8 Completing national wetland inventories
- **T9** Strengthening wise use through integrated river basin management or coastal zone management
- T10 Respecting and using traditional knowledge and practices
- T11 Documenting wetland services and benefits
- T12 Restoring degraded wetlands
- T13 Enhancing sustainability of projects in key sectors

Goal 4: Enhancing Implementation

- T14 Developing scientific and policy guidance
- T15 Reinforcing Ramsar Regional Initiatives for implementation of the Convention
- T16 Mainstreaming wetland conservation and wise use through CEPA
- T17 Mobilizing resources for implementation
- T18 Strengthening international cooperation
- T19 Building capacity to implement the Convention and Strategic Plan

THE RAMSAR CONVENTION: CONSERVATION, WISE USE AND RESTORATION OF WETLANDS

The mission of the Convention on Wetlands (Ramsar, 1971) is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world". The Ramsar Convention has grown to having 170 Contracting Parties in 2018 and 2,308 designated wetlands of international importance ("Ramsar Sites") representing a total surface area of 228,930,640 ha.

Parties joining the Ramsar Convention designate at least one site of international importance, using nine criteria, and commit to its conservation. Under the Ramsar Convention, Parties also commit to the wise use of all of their wetlands, including by taking them into account in their national planning. The term "wise use" refers to the sustainable use of wetlands so that they can be maintained for future generations. The Convention also promotes international cooperation (particularly regarding boundary wetlands and migratory species). In light of the rapid and significant decline in wetlands, restoration has also become a major thrust of the Convention.

The vision presented in Ramsar's 4th Strategic Plan (2016-2024) is that: "Wetlands are conserved, wisely used, restored and their benefits are recognized and valued by all." Under this Strategic Plan, Ramsar Parties will:

- 1. address the drivers of wetland loss and degradation by engaging with relevant stakeholders to reduce threats to wetlands, influence trends, restore wetlands and communicate good practices;
- 2. effectively conserve and manage the Ramsar Site network; and
- 3. use wisely all wetlands, beyond Ramsar Sites, including through integrated river basin management and restoration; and
- 4. enhance implementation through such measures as scientific guidance, communications, international cooperation and capacity building.

Source: Ramsar Secretariat, 2016 1



How Wetlands Achieve Select SDGs



SDG 1 - End poverty in all its forms everywhere

Progress in reducing poverty in the last 25 years provides the basis for this new ambitious target to end extreme poverty by 2030. Building resilience of the poor and vulnerable is one of the targets under this goal and one where the role of wetlands can be clearly illustrated. Wetlands offer a clean and reliable source of water, particularly in times of drought, for cattle, agriculture and human consumption. For example, in Cameroon, restoration of the Waza floodplain, a Ramsar Site, helped to reinstate the flooding regime. It led to improved agriculture production, grazing and fishing, thus generating economic benefits estimated at USD 2.3 million per year².

Global financial losses from changes in tidal marshes and mangroves were estimated at USD 7.2 trillion per year and those from declining coral reefs at USD 11.9 trillion annually³. Although such calculations need to be interpreted with care, they reflect a massive loss of revenue and potential income for millions of the world's most vulnerable and poor communities. In Malawi, Lake Chilwa wetland is home to an extremely dense and poor human population, yet this wetland provides a productive and sustainable source of fish protein for local inhabitants. Its monetary value is estimated to total USD 21 million per year⁴. These values and costs should be incorporated into sustainable strategies for poverty eradication. A trailblazer in this regard, the Kingdom of Bhutan has undertaken a study that has identified and quantified the values (including for example, food, genetic resources, disturbance regulation and cultural values) of Bhutan's inland wetlands for a total monetary value of USD 50 million per year. Furthermore, on a per hectare basis, inland wetlands were found to provide the highest values at USD 14,183/ha/yr⁵.

Target 1.5 under SDG 1 refers to reducing not only climate-related vulnerability, but also exposure and vulnerability to "other economic, social and environmental shocks and disasters". Loss of wetlands, be it from climate change, upstream large hydropower schemes or other causes, affects the way of life of local communities. While it is difficult to establish direct causality, a number of studies have explored the links between forced migration and water scarcity⁶.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
1.4	9	4, 6, 7
1.5	11	1, 2, 13, 14
1.b	1, 2, 13, 15, 18	2, 6, 7



SDG 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Humanity depends on nature and its services to produce food. In many parts of the world, food production relies to a large extent on water from man-made and natural wetlands. For example, rice, which is the staple diet for close to half of the world's population, is grown mainly in natural and human-made wetlands⁷. Additionally, wetlands store water resources that are needed to irrigate land under cultivation.

Nutrition is an important dimension of food security. In this regard, wetlands are also important specifically as a source of protein for many people around the globe. For example, in Cambodia fish from the large Tonle Sap Lake and associated floodplains which include two Ramsar Sites, provide communities with 60-80% of their animal protein⁸,⁹. In the lower Mekong Basin, rice paddies are also important spawning areas for fish, with over 20 fish species found in rice fields in Lao PDR. Together with other species found in wetlands such as insects, molluscs, crabs and shrimps, wetlands are a vital component of food security for many rural communities¹⁰.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
2.3	3, 10	3, 4, 7, 8, 18
2.4	1, 13, 16, 19	1, 2, 6, 7, 17, 18
2.5	3, 10, 15, 18	3, 4, 7, 8, 18





Globally, women are predominantly responsible for food collection and agriculture, and for water collection and management. However, their knowledge and roles in wetlands management are still largely unrecognized, and social and economic norms often reinforce unequal participation and decision-making.

Wetland conservation, management and restoration projects need to be gender sensitive recognizing the differentiated knowledge, roles, needs and vulnerabilities of men and women and contributing to empowering women in governance and decision making. For example, in Burkina Faso women play a leading role in local water committees ensuring that their needs related to water collection and management are met. In Quelimane Mozambique, recognizing that it is generally women who carry out activities related to mangroves such as firewood collection or gathering shellfish, a joint Ramsar / International Union for the Conservation of Nature (IUCN) project focused on providing women with training in mangrove planting and nursery practices.

Women have different access to and control over natural resources and information about how conservation and wise use shapes the way in which wetlands are managed, affecting their rights and customary uses of wetland products and services. For these reasons, ignoring issues related to how women and men interact and manage wetlands may prevent effective and efficient conservation, sustainable use and equitable access to benefits of these protected areas. Learning from similar processes, particularly those from the Rio Conventions, a draft resolution for consideration by the 13th meeting of the Conference of the Parties considers a process to increase awareness among Contracting Parties on the linkages between gender equality and wetland management.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
5.5	10	18
5.a	10	4, 6, 7, 18

SDG 6 - Ensure availability and sustainable management of water and sanitation for all



Wetlands are critical to ensure water availability. Almost all of the world's consumption of freshwater is drawn either directly or indirectly from wetlands. Wetlands provide the essential infrastructure through which freshwater is delivered for human consumption, making wetlands foundational to ensure availability of water for all.

Wetlands also provide a natural water filter. Wetlands vegetation captures nutrients, pollutants and sediments, thus cleaning and improving water quality. In contrast, mismanaged wetlands are often heavily polluted and if used for irrigation or drinking water may prove dangerous to human health. In this context, restoring the functional qualities of healthy wetlands is critical. For example, Wetlands surrounding Kampala act as a natural filter and prevent pollution from reaching Lake Victoria which is a critical source of drinking water for this capital city of 1.5 million inhabitants¹¹. The purification value of the Navikubo wetland was quantified at USD 1.3 million per year¹². Similarly, in India's Musi river, water was tested close to the city where waste is dumped into the river, then further downstream once it had been fltered naturally by the river and its associated biodiversity. Water quality downstream was found to be significantly improved¹³.

Basin-level approaches provide a frame for schemes such as payments for ecosystem services. In Brazil, the Parana River provides much of Sao Paolo's drinking water. Faced with declining water quality because of deforestation in the Atlantic Forest, a TNC (The Nature Conservancy) payment for ecosystem services project led to major water users, such as water supply companies and industries, paying a fee to support farmers and ranchers to plant trees along riparian zones in the river's headwaters¹⁴.

SDG 6 - Ensure availability and sustainable management of water and sanitation for all Target 6.6 seeks to protect and restore ecosystems. The Ramsar Convention is a co-custodian of Indicator 6.6.1 that monitors change in the extent of water-related ecosystems over time. The Convention provides data submitted by Contracting Parties on wetlands critical to monitoring the status and taking decisions on managing water ecosystems.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
6.1	1	2
6.2	1	
6.3	3, 5	3, 4, 6, 7, 8, 11, 12
6.4	2, 3, 5	3, 4, 6, 7, 8, 11, 12
6.5	1, 5, 6, 9, 15, 18	2, 6, 7, 11
6.6	2, , 5, 6, 7, 8, 12	3, 5, 7, 8, 11, 12, 14, 15
6.a	3, 16, 18, 19	1, 3, 4, 7, 8, 17, 18
6.b	3, 10	3, 4, 7, 8, 18

How Wetlands Support Achievement of the SDGs

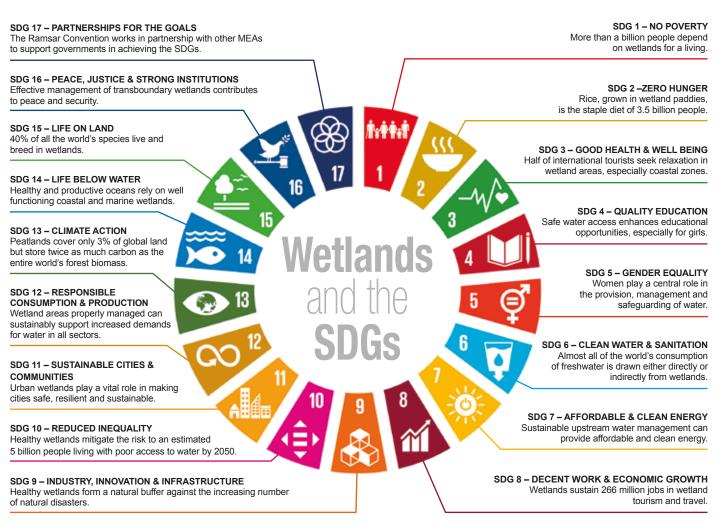


FIGURE #1





Economic growth models to date have relied extensively on the exploitation of natural resources. More recently, concepts such as the "green economy", "green growth", "natural capital", amongst others, recognize the importance of securing economic growth models that conserve and use sustainably our natural resources. Wetlands provide water that is fundamental to production systems such as agriculture, but also in cooling processes in manufacturing and energy production. One of the targets under this goal is to decouple economic growth from environmental degradation. Wetlands contribute to this target by providing services of value to agriculture and industrial production, such as nutrient recycling, protection against flooding and water filtration that would otherwise have to be engineered at a much greater financial cost. Another target emphasizes policies to promote sustainable tourism that creates jobs and promotes local culture and products. Wetlands sustain 266 million jobs in wetland tourism and travel¹⁵. There is significant potential for a large proportion of this tourism to be based on ecotourism and to be sustainable with visitors' fees and ecotourism-related income providing much-needed income to local communities¹⁶.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
8.3	1, 13	2, 6, 7
8.4	3, 9	3, 4, 6, 7
8.9	1, 13	2, 6, 7

SDG 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



Increasing climate uncertainty and extremes require better protection measures for infrastructure. In the 20-year period to 2015, floods and storms worldwide affected about 3 billion people and damaged or destroyed a total of 87 million residences as well as 130,000 public buildings¹⁷. Nature-based solutions can help to mitigate and adapt to these mounting threats with wetlands providing cost effective natural infrastructure. While restoration of natural ecosystems is costly, it remains less costly than infrastructure construction to protect coastal areas from flooding. For example, in the UK and the Netherlands mudflats and salt marsh habitats are being restored or created to protect coastal zones as well as new seawalls that are built further inland. In Vietnam, the Red Cross paid USD 1.1 million to restore and protect 12,000 hectares of mangroves versus an estimated USD 7.3 million for dike maintenance to protect coastal zones from typhoons as well as offer other co-benefits such as the provision of molluscs, shrimp and seaweed to supplement diets and income¹⁸. South Africa's "Working for Wetlands" programme combines water conservation with job creation. It aims to restore degraded wetlands to enhance the country's water supply, but also aims to employ the most disadvantaged members of society¹⁹.

Sustainable drainage systems, promoted increasingly in urban contexts, contribute to this target by using the landscape to control the flow and volume of surface water from rainfall, preventing or reducing pollution downstream and promoting groundwater recharge. For example, in Malmö (Sweden) the neighbourhood of Augustenborg was revitalized in the period 1998-2002; this included the creation of sustainable urban drainage systems composed of 6km of water channels and ten retention ponds. The system includes the channelling of rainwater from roofs, roads and car parks through trenches, ditches, ponds and wetlands²⁰.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
9.1	3, 15	3, 4, 7, 8
9.5	3, 14	3, 4, 7, 8, 19
9.a	14, 17	19, 20

SDG 11 - Make cities and human settlements inclusive, safe, resilient and sustainable



Water-related disasters accounted for 90% of all disasters in the last two decades. Nature-based solutions such as coral reefs, mangroves and salt marshes provide low cost protection for coastlines by reducing wave height and strength, reducing storm surges and absorbing some of the excess water²¹. In the US for example, a study showed that wetlands mitigated the impact of hurricane Sandy in 2012 in 12 States and saved USD 625 million in flood damage²². These low cost options increase resilience, enabling communities to better adapt to climate change, and can provide multiple benefits for both people and biodiversity for current and future generations.

Coastal zones that have witnessed significant rates of development are at particular risk. Yet, close to 50% of the world's major cities are located within 50 kilometres of the coast²³. With population densities in coastal areas 2.6 times larger than in inland areas, water-related hazards represent a significant threat to several million people. For example, the city of Alexandria situated in the low-lying Nile delta in Egypt is home to over 4 million people and has been identified by the Intergovernmental Panel on Climate Change as being at high risk from sea level rise due to climate change. It is the country's second largest city and main port surrounded by wetlands that have been significantly impacted by salt water intrusion, drainage and pollution. Attention has turned to implementing integrated coastal zone management in the Nile Delta and to preserving and restoring these wetlands that not only play a role for fisheries, birds, and agriculture but also contribute to improving the resilience of the city, its industries and residents in the face of climate change impacts²⁴.

Wetlands serve as upstream retention basins preventing floods in cities downstream²⁵. In the Czech Republic fish ponds from the middle ages significantly reduce downstream flooding of cities including the capital Prague.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
11.3	1,16, 19	1, 2, 7, 8, 10, 18
11.4	1, 3, 5, 6, 7, 8	2, 3, 4, 5, 8, 10, 11, 12, 14, 18, 19
11.5	3	3, 4, 6, 7, 8
11.6	3	3, 4, 7, 8
11.7	3	3, 4, 7, 8
11.a	1, 5, 6, 7, 13, 15	2, 5, 6, 7, 10, 11, 12
11.b	1, 5, 6, 7, 9, 13	2, 4, 5, 6, 7, 10, 11, 12

SDG 13 - Take urgent action to combat climate change and its impacts



Combatting climate change requires a comprehensive and multi-pronged strategic approach. Impacts of climate change are felt around the world, with an increase in climate-related disasters anticipated. Parties to the Ramsar Convention agreed in 2015 "wetlands in all parts of the world play an important role in disaster risk reduction if the wetlands are effectively managed and restored where necessary" 26.

Wetland soils contain over a third (35%) of the world's organic carbon²⁷. Coastal ecosystems and particularly mangroves, saltmarshes and seagrass beds sequester two to four times more carbon than terrestrial forests²⁸ and these "blue carbon ecosystems" play an important role in climate change mitigation. This carbon is stored for the long-term in wetland soils. Preventing further degradation, drainage and loss of wetlands ecosystems is critical to preventing further GHG emissions.

Given the scale of the climate change challenge, partnerships can mobilize expertise and funding more effectively. The International Partnership for Blue Carbon – announced during the Paris Climate Change conference in 2015 – aims to bring together diverse partners, from government to non-government and research organizations, to conserve coastal ecosystems. Already, 28 countries have included coastal blue carbon ecosystems in their nationally determined contributions (NDCs) under the United Nations Framework Convention on Climate Change (UNFCCC) while 59 countries have included these ecosystems in their adaptation strategies.

SDG 13 - Take urgent action to combat climate change and its impacts

Peatlands in particular, although only accounting for 3% of the earth's surface, hold twice as much carbon as the world's forests^{29 30}. Losing wetlands contributes to climate change, while restoring them can help build resilience and mitigate climate change. For example, peatlands in Indonesian Borneo total approximately 5.7 million hectares and the expansion of plantations on peatlands are expected to account for 18–22% of Indonesia's total GHG emissions by the year 2020. The Katingan Peatland Restoration and Conservation Project was set up to protect and restore 149,800 hectares of peatland ecosystems in such a way that they can support local people by providing them with sustainable sources of income through agroforestry, and to contribute to reducing global climate change³¹. Rewetting drained peatlands can significantly reduce GHG emissions and developing new forms of sustainable agricultural production under wet conditions (paludiculture) will reduce GHG emissions.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
13.1	6, 7, 16, 19	1, 5, 6, 7, 10, 11, 12, 17, 18
13.2	1, 13	2, 6, 7
13.3	16, 19	1, 17

SDG 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development



Close to half of the planet – 3 billion people – depend on marine resources for their primary source of protein³². Recognizing the importance of marine resources to people, this goal seeks notably, to reduce pollution, sustainably manage and protect coastal ecosystems, reduce overfishing and conserve at least 10% of coastal and marine areas by 2020. For example, a deal struck in 2015 between the Paris Club and the Government of Seychelles confirms a USD 21.6 million debt swap in exchange for 15% of Seychelles' Exclusive Economic Zone being placed under marine protection by the end of 2017, and 30% by the end of 2020 (up from less than 1%). The debt swap together with the issuance of a USD 15 million sovereign blue bond in 2018 will help to secure a sustainable flow of funds to support the long-term management of the Seychelles network of marine protected areas and sustainable fisheries³³. Pacific islands are also highly dependent on coastal fisheries and efforts are needed to improve their adaptation to the impacts that climate change will have on this vital resource.

Fisheries need to be managed to enable the protection of spawning areas which are often in coastal marine areas and in rivers upstream for migrating fish such as salmon and eels while considering the ecology of the target species to ensure stocks are replenished. Given the impacts that climate change is likely to have on ecosystems, this requires the identification of habitats (coral reefs, mangrove and seagrass beds) that are likely to persist into the future³⁴. One of two Ramsar Sites in Australia's Great Barrier Reef, the Bowling Green Bay Ramsar Site, is subject to a management plan that includes maintenance of the naturally occurring diversity of flora and fauna, habitat types and other natural features of the area as well as the maintenance of cultural resources of importance to the traditional owners and other indigenous people of the area³⁵.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
14.1	3	3, 4, 7, 8
14.2	3, 5, 6, 7, 12, 15	3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15
14.3	3, 14	3, 4, 7, 8, 19
14.4	1, 3, 12, 13, 14	2, 3, 4, 6, 7, 8, 14, 15, 19
14.5	1, 3, 8, 13, 14, 18	2, 3, 4, 6, 7, 8, 14, 18, 19
14.7	3, 9, 11	1, 2, 3, 4, 6, 7, 8, 13, 14
14.b	3	3, 4, 7, 8
14.c	1, 9, 13, 18	2, 4, 6, 7

SDG 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



Terrestrial ecosystems such as forests and wetlands and the biodiversity they harbour, can be considered nature's contribution to people³⁶. One target under this goal (target 15.1) relates to the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, including wetlands specifically. These ecosystems sustain about 126,000 freshwater species³⁷. This number represents 9.5% of total animal species, a disproportionately high number given that freshwaters (lakes, rivers, groundwater, etc.) cover about 0.01% of the total surface of the globe³⁸.

Wetlands have been estimated to provide 40% of global renewable ecosystem services³⁹. While placing numbers on this contribution is difficult and may be debated, economists have estimated the annual value of our planet's wetlands at USD 36.2 trillion and that of forests at USD 19.5 trillion⁴⁰. A two-thirds reduction in wetlands in the twentieth century, signals a potentially equally alarming loss in biodiversity and in ecosystem services from wetlands. 76% of threatened species rely on inland wetlands for their habitat.

The restoration of the El Cascajo wetland by the government of Peru starting from 2010 transformed it rapidly from a polluted, illegal dumping site, to one harbouring several hundreds of birds, over 40 migratory bird species and three fish species^{41 42}. In Tanzania's Pangani river basin, natural forest cover promotes infiltration of water during the rainy season which can then be gradually released throughout the years, including in the dry season. Forest loss and degradation in the Pangani has had an adverse effect on water infiltration and therefore on water availability in the dry season.

SDG	RAMSAR STRATEGIC PLAN TARGET	RELEVANT AICHI TARGET
15.1	3, 5, 6, 7, 8, 12, 15, 18	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15
15.2	3, 5, 6, 7, 12	3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15
15.3	3, 5, 6, 7, 12	3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15
15.4	3, 5, 6, 7	3, 4, 5, 6, 7, 8, 10, 11, 12
15.5	3	3, 4, 7, 8
15.6	3, 18	3, 4, 7, 8
15.7	3, 16	1, 3, 4, 7, 8, 18
15.8	4	9
15.9	1, 11, 13	1, 2, 6, 7, 13, 14
15.a	17	20
15.b	17	20
15.c	10, 19	1, 17, 18



Integrating wetlands into SDG planning processes

The 2030 Agenda and its SDGs provide a roadmap for national and international action from governments, civil society, private sector and other actors to achieve sustainable development for current and future generations. Wetlands provide a range of values and services such as clean water, food, biodiversity, and infrastructure that sustain livelihoods and local to national economies. Investing in wetlands will result in many co-benefits to nature and society. To move from the inspiration and ambition of the 2030 Agenda to its actual implementation requires a level of integration and practical implementation on the ground not yet experienced. The commitment of Parties to the Ramsar Convention on Wetlands to designate Wetlands of International Importance (Ramsar Sites) and to conserve and use wisely all their wetlands is critical in achieving the SDGs. The Convention thus provides a ready platform to implement the SDGs.

Key actions needed:

- INTEGRATED APPROACHES: Ensure that wetland conservation, wise use and restoration
 are integrated into SDG planning and implementation. Contracting Parties to the Convention on
 Wetlands should ensure that their efforts to implement the Ramsar Strategic Plan are integrated
 into their SDG planning and implementation efforts, using the linkages highlighted in this document.
 - Include wetlands and the Ramsar Convention in national SDG plans, where they exist, and ensure that reports on progress on the SDGs reflect the contributions of wetlands so that their conservation, wise use and restoration can directly link to the sustainable development agenda.
 - Integrate wetland services in NDCs for the Paris Agreement on Climate Change.
- EFFECTIVE AND SCALED UP WETLAND POLICIES AND PRACTICES: Adopt policies and practices for the conservation and wise use of wetlands in order to reverse current and future wetland loss and degradation.
 - Scale up wetlands interventions. A landscape or watershed approach that takes into account a larger area can help to consider both the wider ecological processes of wetlands and the human impacts of their loss, and conversely, of their restoration.
 - Identify clearly the services that wetlands including Ramsar Sites provide for people and the
 environment when they are being designated to help improve understanding of a Site's values
 and subsequent proposed actions related to conserving, using and restoring it. The global
 network of Ramsar Sites can be managed as pilot sites for promoting sustainable development.
 - Integrate wetlands conservation, wise use and restoration into diverse sectoral policies, such as agriculture, forestry or urban planning amongst others, to promote their role in meeting multiple objectives.
 - Utilize Ramsar national reports and accompanying reporting mechanisms to provide information for inventories and monitoring related to SDG 6.6.1 and 15.1.
 - Engage stakeholders at all levels to facilitate integration of wetland conservation, wise use
 and restoration into livelihood strategies, thereby ensuring the sustainability of such efforts. In
 particular, the role and knowledge of local and indigenous communities is increasingly being
 valued as fundamental to the long-term sustainability of interventions.

3. COOPERATION AND SYNERGIES:

- Develop multi-stakeholder partnerships as a critical means of implementation for wetland conservation, wise use and restoration. As such, efforts are necessary to promote these partnerships between different sectors of society in Ramsar Sites.
- Seize opportunities and synergies with other sectors, conventions and priorities. An important
 action is the need to foster collaboration between national focal points for different conventions
 and focal points for SDG planning and implementation and in particular Statistical Offices to
 advance broader landscape approaches to conservation and sustainable development related to
 Ramsar Sites, but also other protected areas such as World Heritage Sites.
- Increase funding for comprehensive actions in wetlands including Ramsar Site to reflect the importance of these sites, not only from a biodiversity point of view, but also from a sustainable development perspective.



Working in Partnership

The SDGs form the backbone of the global agenda for action on sustainable development. Many governments are challenged to meet their numerous commitments across multilateral environmental agreements. Furthermore, protected areas such as Ramsar Sites, World Heritage Sites, and other protected areas may fall under different national authorities as they are designated under different conventions. Understanding these linkages and seeking to enhance integration and synergies through partnership is very important. Recognizing this, the Ramsar Convention works in partnership with a number of multilateral environmental agreements (MEAs) to support governments in achieving commitments across a range of conventions and site designations. The same cooperation needs also to be developed at national level.















Conclusions

The 17 Sustainable Development Goals present an opportunity to re-position the importance of wetlands not only as a critical natural resource, but also as an essential component of human wellbeing, inclusive economic growth and climate mitigation and adaptation. Wetlands contribute to all of the 17 SDGs, either directly or indirectly and their conservation and wise use represent a cost effective investment for governments. Synergies can be achieved with many actions on wetlands clearly contributing to more than one SDG, and similarly, many actions related to Ramsar Sites supporting commitments under other conventions. Thus, SDGs represent an opportunity for collaboration and synergies across conventions. In turn, wetlands protection, wise use and restoration provide governments with a path to reconciling numerous commitments under the environmental agreements, such as Ramsar, but also the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD) and the Convention on Biological Diversity (CBD) while contributing to the SDGs.

Indicators and Targets

The Fourth Ramsar Strategic Plan lays out a new vision under the Convention mission, four overall goals and 19 specific targets which are designed to support the efforts of Parties, partners and other stakeholders in preventing, stopping and reversing the global decline of wetlands. The goals and indicators of the Strategic Plan can be found here.

The Aichi Targets under the Strategic Plan for Biodiversity 2011-2020 provide an overarching framework on biodiversity, not only for the biodiversity-related conventions, but for the entire United Nations system and all other partners engaged in biodiversity management and policy development. The 20 global targets grouped under five strategic goals can be found <a href="https://example.com/here-engaged-new-management-engaged-new-man

The Sustainable Development Goals (SDGs) are a collection of 17 global goals set by the United Nations. The broad goals are interrelated though each has its own targets to achieve. The total number of targets is 169. The SDGs cover a broad range of social and economic development issues. The SDG goals and targets can be found here.

- ¹ Ramsar Secretariat, 2016. An Introduction to the Ramsar Convention on Wetlands, 7th ed. (previously The Ramsar Convention Manual) Gland: Ramsar Convention Secretariat
- ² Russi D., ten Brink P., Farmer A., Badura T., Coates D., Förster J., Kumar R. and Davidson N., 2013. The Economics of Ecosystems and Biodiversity for Water and Wetlands. London, Brussels, Gland: IEEP Ramsar Secretariat.
- ³ Costanza, R., de Groot, R., Sutton, P., van der Ploeg, S., Anderson, S.J., Kubiszewski, I., Farber, S. and Turner, R.K., 2014. Changes in the global value of ecosystem services. *Global environmental change* 26: 152-158.
- ⁴ McCartney, M., Rebelo, L-M., Senaratna Sellamuttu, S. and de Silva, S., 2010. Wetlands, agriculture and poverty reduction. Colombo: International Water Management Institute.
- ⁵ Kubiszewski, I., Costanza, R., Dorji, L., Thoennes, P. and Tshering, K., 2013. An initial estimate of the value of ecosystem services in Bhutan. *Ecosystem Services* 3: e11-e21.
- ⁶ Wetlands International, 2017b. Water Shocks: Wetlands and Human Migration in the Sahel. Wageningen: Wetlands International.
- ⁷ McCartney et al., 2010. Op cit.
- 8 MEA, (Millennium Ecosystem Assessment), 2005. Ecosystems And Human Well-Being: Wetlands And Water Synthesis. Washington, DC: World Resources Institute.
- ⁹ McCartney et al., 2010, Op.cit.
- 10 Wood, A. and Van Halsema, G., 2008. Scoping Agriculture-Wetland Interactions. Towards a Sustainable multiple-response strategy. Rome: FAO.
- 11 Kaggwa, R., Hogan, R. and Hall, B. (eds.), 2009. Enhancing Wetlands' Contribution to Growth, Employment and Prosperity.
 Kampala: LINDP/NEMA
- ¹² Emerton et al., 1999, quoted in Kaggwa et al., 2009 (op. cit.)
- ¹³ CBD (Secretariat of the Convention on Biological Diversity), 2010 Drinking Water, Biodiversity and Development. A Good Practice Guide Montreal: CBD
- 14 Russi et al., 2013. Op. cit.
- 15 World Travel & Tourism; Economic Impact 2014
- 16 Colgan, C. S., M. W. Beck, S. Narayan, 2017. Financing Natural Infrastructure for Coastal Flood Damage Reduction. London: Lloyd's Tercentenary Research Foundation.
- ¹⁷ Lo, V., 2016. Synthesis report on experiences with ecosystem-based approaches to climate change adaptation and disaster risk reduction. Technical Series No.85. Montreal: Secretariat of the Convention on Biological Diversity.
- ¹⁸ UN, 2008. Innovation for Sustainable Development. New York: UN
- ¹⁹ Graham, A., Day, J., Bray, B. and McKenzie, S., 2012. Sustainable drainage systems. Maximising the potential for people and wildlife. A guide for local authorities and developers. London: RSPB and WWT.
- ²⁰ Colgan et al., 2017. Op. cit.
- ²¹ Narayan, S., Beck, M.W., Wilson, P., Thomas, C.J., Guerrero, A., Shepard, C.C., Reguero, B.G., Franco, G., Ingram, J.C. and Trespalacios, D., 2017. *The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern USA. Scientific Reports* 7(1): 9463.
- ²² MEA, 2005. Op. cit.
- ²³ MEA, 2005. Op. cit.
- ²⁴ UNDP Egypt, http://www.eg.undp.org/content/egypt/en/home.html (accessed 22 January, 2018)
- ²⁵ Ramsar, 2015. 12th Meeting of the Conference of the Parties to the Convention on Wetlands (Ramsar, Iran, 1971). Resolution XII.13
- ²⁶ Mitsch, W.J. and Gosselink, J.G., 2015. Wetlands of the world. Wetlands, pp.45-110.
- ²⁷ Howard, J., Sutton-Grier, A., Herr, D., Kleypas, J., Landis, E., Mcleod, E., Pidgeon, E. and Simpson, S., 2017. Clarifying the role of coastal and marine systems in climate mitigation. Frontiers in Ecology and the Environment 15(1): 42-50.
- ²⁸ International Partnership for Blue Carbon, 2015. Coastal blue carbon: An Introduction for Policy Makers. Brisbane and Melbourne: University of Queensland and the Australian Government Department of the Environment and Energy.
- ²⁹ Joosten, H., Sirin, A., Couwenberg, J.., Laine, J. and Smith, P., 2016. The role of peatlands in climate regulation. In: *Peatland Restoration and Ecosystem Services: Science, Policy and Practice*, edited by A. Bonn, T. Allott, M. Evans, H. Joosten, R. Stoneman. Cambridge: Cambridge University Press.
- ³⁰ VCS, 2016. Katingan Peatland Restoration and Conservation Project.
- 31 UN SDGs
- 32 The Nature Conservancy, https://www.nature.org/ (accessed on 22 January 2018).
- ³³ Bell, J.D., Cisneros-Montemayor, A., Hanich, Q., Johnson, J.E., Lehodey, P., Moore, B.R., Pratchett, M.S., Reygondeau, G., Senina, I., Virdin, J. and Wabnitz, C.C., 2017. Adaptations to maintain the contributions of small-scale fisheries to food security in the Pacific Islands. *Marine Policy*. (doi: https://doi.org/10.1016/j.marpol.2017.05.019)
- 34 Queensland Government
- ³⁵ Diaz, S., Pascual, U., Stenseke, M., Martin-Lopez, B., Watson, R.T., Molnár, Z., Hill, R., Chan, K.M., Baste, I.A., Brauman, K.A. and Polasky, S., 2018. An inclusive approach to assess nature's contributions to people. *Science* 359(6373).
- ³⁶ Balian, E.V., Segers, H., Lévêque, C. and Martens, K., 2008. The freshwater animal diversity assessment: an overview of the results. *Hydrobiologia* 595(1): 627-637.
- 37 Ibid
- ³⁸ Meli, P., Benayas, J.M.R., Balvanera, P. and Ramos, M.M., 2014. Restoration enhances wetland biodiversity and ecosystem service supply, but results are context-dependent: a meta-analysis. *PloS one* 9(4): e93507.
- 39 Costanza et al., 2014. Op. cit.
- ⁴⁰ FAO, 2016. State of the World's Forests. Rome: FAO.
- ⁴¹ Government of Peru, 2015. National Report to the 12th COP of the Ramsar Convention. Lima: Government of Peru.
- ⁴² Project presentation to Peruvian Congress (accessed on 22 January 2018).