

SCALING UP THE POWER OF WETLANDS

WETLANDS INTERNATIONAL STRATEGIC INTENT, 2020-2030



FOREWORD

Wetlands International's work shows how healthy wetlands can help solve the global challenges of climate change, human health, biodiversity and water security. Their inspiration, knowledge and experience is vital to achieve wetland recovery in all regions. But to make a global difference, massive upscaling is needed over tens of millions of hectares in the coming decade. This Strategy includes a global agenda for wetland recovery and a plan to harness the collective will of diverse stakeholders to accelerate action and bring lasting returns for people and nature. Time is short and the challenge is great - please join us!

André van der Zande, Chair, Wetlands International

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INTRODUCING WETLANDS INTERNATIONAL'S STRATEGIC INTENT 2020-2030

Bringing wetlands back into a healthier condition on a large scale will transform lives and livelihoods. With water sources and stores intact, we can recover freshwater supplies and withstand unpredictable rains. Cities will become cooler and wild fires less likely. Crop production and fisheries can recover and diversify as biodiversity and water flows will be restored. Coastal settlements and cities can be safe from the impacts of storms and sea-level rise. Climate change will slow down as carbon is locked up in wetlands. People's spirit will be enriched and refreshed by nature that is flourishing once again.



This knowledge on the power of wetlands drives our agenda. We feel responsible to establish a bold plan to inspire and mobilise society to this end. Hence we adjusted our mission to reflect this role and have set out a strategy for this decade which is all about upscaling.

This 10-year global Strategic Intent is the highest level guide to our work. It sets out our ambitions and targets for what we can achieve, alongside others, to improve the condition of wetlands for people and nature. We have taken into account the most relevant trends and challenges as well as enablers for positive change. We have designed our strategies according to what our organisation can best contribute, working with others. We aim to marry the advantage of our local presence, extensive technical experience and partnerships with our ability to influence global dialogues, policies and investments. We recognise that to achieve our ambitions, our organisation will need to grow and further professionalise in all regions.

The COVID-19 pandemic has alerted the world to the urgent need to establish a new relationship with nature. One that combines improving human well-being, including health and livelihoods with regenerating nature and natural processes. Our work shows how, with a little help, people can transform their lives and environment at a local level and how this can contribute to build resilience and stimulate green recovery at scale.

Our strategy has benefitted from consultation with hundreds of our stakeholders. The additional emphasis that we have given on nature-based solutions, climate change, resilience, human security, wetland carbon and infrastructure was supported in all regions. We have also been strongly encouraged to be bold and ambitious and to become more visible and influential, whilst remaining loyal to our roots.



Summer on the Ruoergai Plateau, China. This wetland has been brought back to life.

The direction set out in this document is translated through regional and national strategies and action plans, as well as programmes of work in the main wetland landscapes where we work. We will report on our progress through "The Source", our annual review.

I am grateful to all those who have helped to inform and shape this Strategic Intent and look forward to collaborate to turn it into action.

Jane Madgwick Chief Executive Officer

WHY WETLANDS MATTER AND THE CASE FOR URGENT ACTION

2019 saw fires rage across Indonesia, the Pantanal and the Arctic with a devastating effect on wildlife, nature and people. Attention is now turning to fire prevention through the rewetting of drained peatlands.

Over the past fifty years, wetlands have drastically diminished in both area and their capacity to support life. In the name of boosting crop and livestock production, exploiting energy reserves and making way for urban development, rivers have been dammed and diverted, while wetlands have been diked and drained. The impacts have been severe. The shrinkage and fragmentation of wetlands and disruption of ecological processes has resulted in massive and accelerating biodiversity loss, water and food shortages, devastating floods and fires, coastal subsidence and erosion. This in turn has undermined wetland-based economies, put urban areas in peril, and made some of the poorest communities more vulnerable, triggering outmigration and resource conflicts. All this exacerbates, and in many places is being exacerbated by, climate change.

We have a global problem, deserving global solutions. The choices we make now for wetlands are crucial to avoiding the most devastating impacts on people, nature and planetary processes.

The science is clear and the social and economic

Wherever land meets water, life abounds. In every country and all climatic zones, from polar regions to the tropics, and from the highest mountains to the oceans, wetlands provide natural resources for nature and people. Rivers, lakes, bogs, marshes, deltas, floodplains, flooded forests, mangroves, saltmarshes, coral reefs and even rice-fields, are home to 40% of the world's species. They are vital for people too. Wetland communities and many others depend on them directly and indirectly for food, water, medicines, fuel and income from wildlife tourism. Wetlands also play vital roles in maintaining ecological processes. They are the physical connectors between terrestrial and marine environments. They capture and store rainwater, regulate river flows and sedimentation, help replenish groundwater, and capture and store carbon. In short, they are crucial part of the planetary support system.



cases for recovering wetlands are powerful. Wetlands offer effective nature-based solutions to global problems. But environmental protection of wetland sites is not sufficient since the fluidity of water means that effective action requires coordination across landscapes and national boundaries. Even so, by stepping up action to safeguard and restore wetlands we can save nature, better capture and store water, improve food security through sustaining agriculture and fisheries, keep carbon out of the atmosphere, and safeguard cities and settlements from the worst impacts of floods and droughts.

Technological solutions framed around hydrology, ecology and economic analysis of ecosystem services will not work alone, however. People matter too. The relational values between people and wetlands must come to the fore. By recognising the links between wetlands and cultural identity, and by focusing on the spiritual and quality-of-life returns from wetland restoration, as well as the ecological returns, it will be possible to heal and re-set our relationship with wetlands and build momentum for their recovery.

Wetlands and their values

Wetlands are ecosystems which occur wherever land and water meet. They exist in every country across the world and every type of region – polar, tropical, wet, dry, high and low altitude. Wetlands take various forms and are highly dynamic, connecting mountains to the sea.

The values of both coastal and inland wetland ecosystems to society and the economy are the highest of any ecosystem type.

Acting as the water sources, sinks and regulators, the "health" of wetlands affects the quantity and quality of water available for our use in every landscape. In other words, wetlands control our water security - widely regarded as the key natural resource challenge facing humanity.



WHAT IS NEEDED **TO BRING ABOUT THIS CHANGE?**



The short answer is a lot. To reach such goals will require an enormous upscaling of conservation and restoration activity, based on a transformation of how we conceive wetlands. and how activities in and around them are operationalised, financed and governed. This will in turn require innovative policy alignments across different ministries, economic sectors and disciplines, as well as novel financing mechanisms and increased technical capacity in governments, businesses and civil society.

It will require new thinking about smart combinations of wetland conservation and water utilisation – operating dams to maintain wetlands as well as generate hydroelectricity, turning aquaculture ponds into hybrid coastal

wetlands, and using natural systems rather than concrete to solve problems such as flooding, to name three examples.

The resilience of freshwater systems needs to be a touchstone for policymaking. So will the needs and values of local communities, particularly those living in and around wetlands. Beyond such considerations, and shaping everything, the necessary transformation will require a root-and-branch change of societal views about wetlands, a clear break from the common perception of them as dumping grounds and backwaters, places for the marginalised, and ripe for privatisation and exploitation, drainage and "development". That, above all, needs to change.

MAKING THE CHANGE

From the growing engagement of civil society in environmental issues to the rise of corporate sustainability ambition, we can build on the momentum of existing movements and global agreements.

Civil society on the march:

The recent growth of environmental activism driven by youth has captured the attention of wider civil society and political and business leaders alike, making action on ecosystem decline and climate change a higher political priority. Innovative solutions and collaborations are receiving institutional support as never before. The cultural change is such that employers need a good environmental reputation to attract the best young professional recruits.

In this environment, there are a growing number of alliances of NGOs, governments and the private sector, working on how to better



manage and restore ecosystems, including wetlands. For us, this provides many new opportunities to focus our knowledge, networks and resources towards our goals, such as peatland restoration or nature-based coastal protection. The ultimate effectiveness of these alliances will, we believe, often depend on the voices of those most affected by changes to wetlands, especially wetland communities, being both heard and heeded. In this respect, the increase in community-based organisations and organised networks of women's groups and indigenous peoples, and their focus on cultural, environmental and resource-rights issues, is an important trend.



Pursuing UN goals:

The restoration of healthy, functioning wetlands is increasingly seen as essential for the achievement of a range of global development and climate goals, including several Sustainable Development Goals, the Paris Agreement on climate change, the aims of the Convention on Biological Diversity and aspirations for land degradation neutrality. Wetlands can provide a unifying focus for actors in all these areas. The Ramsar Convention on Wetlands has been seeking to build on this potential synergy to develop commonly agreed and applied indicators for the state of wetlands and their wise use. Another unifying theme is the UN declaration of 2021–2030 as the Decade on Ecosystem Restoration. This global call to mobilise political will, science, technical knowhow and finance, is another opportunity to establish and mobilise restoration targets for wetlands.

The Nationally Determined Contributions (NDCs) required by the Paris Agreement on

climate change provide an opportunity for countries with peatlands, mangroves and other carbon-rich wetland ecosystems to plan projects to protect and restore them as part of their contributions to limiting climate change. We can provide technical expertise to achieve climate action through wetland restoration and conservation programmes.

And as the frequency and impact of waterrelated disasters rises, so does interest in adopting nature-based infrastructure such as restored mangroves or salt marshes as a buffer against the consequences. The Global Commission on Adaptation, set up in 2018 by former UN secretary general Ban Ki-Moon, sees ecosystems as essential to successful adaptation to climate change for hundreds of millions of people. Again we can help nations integrate such approaches into their Paris National Adaptation Plans and enhance climate resilience.

Leveraging public-private partnerships:

Companies are under increasing pressure from shareholders, regulators, customers and their own employees to be accountable for their social and environmental performance. Global policy signals from major financing organisations are helping to drive this change. An increasing number of development projects are required to comply with international standards, and more companies commit to adhere to them.

This has gone beyond a box-ticking exercise for companies and has become a process by which they learn the benefits and value of the ecosystem services they ultimately depend upon. Increasingly there are drivers to create a "race to the top" on environmental standards, as international business-led coalitions emerge to protect and restore biodiversity in highvalue natural ecosystems, including wetlands.



Considering their role in storing and regulating water and carbon across landscapes, wetlands should rise up the agenda of companies which seek to reduce their climate footprint and to reduce water risks.

This confluence of national, private sector and intergovernmental interest is turning into a global campaign for nations to frame economic planning around green recovery strategies and plans. It has gained renewed focus as countries think about kick-starting their economies after the coronavirus crisis. There is much potential to integrate the efforts of Green Deals and climate action, while protecting natural resources and biodiversity. This narrative offers a new chance to highlight the need for urgent action for wetlands. This offers opportunity to promote wetlands as part of a suite of nature-based economic solutions.

A GLOBAL NETWORK ORGANISATION DEDICATED TO WETLANDS

Wetlands International is a science-based organisation and partner of local communities, governments and the private sector, with expertise in managing water and wetlands for people and nature. We are the leading international non-profit organisation dedicated to the conservation and restoration of wetlands.

Our earliest predecessor organisation was founded in 1954 and many of our offices have a 30-40 year history of working in their country or region. Since 1995, we have operated as a global network organisation. Our offices are legal entities that share the name and brand "Wetlands International". They implement a joint Strategic Intent and adhere to a common set of organisational policies. Regional and national priorities and national and local partnerships and networks are decided by the respective offices and we carry our programme development, advocacy and communications through a collaborative approach.



Our vision is a world where wetlands are treasured and nurtured for their beauty, the life they support and the resources they provide.

Our mission is to inspire and mobilise society to safeguard and restore wetlands for people and nature.

Our ambition for the period 2020-2030 is to upscale action to safeguard and restore wetlands, collaborating with multiple partners and mobilising a wide range of actors to transform whole landscapes and sectors.

We will do this by focusing on particular wetland landscapes, in basins and cities where the values of wetlands for people and nature coincide, and by connecting local and global actions. In this way, we will make a significant contribution to reverse the decline in biodiversity, build resilient wetland communities and enable equitable and sustainable development, while helping people and nature to mitigate and adapt to climate change.

Our global leadership team in the Pantanal, Brazil in 2019



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PROPOSED GLOBAL TARGETS FOR WETLAND RECOVERY

Until now, the complexity and range of benefits from wetlands, and the difficulties of analysing and evaluating their status has precluded the adoption of agreed targets of the kind agreed for forests and some other major ecosystems. But that is changing. On World Wetlands Day 2020, the International Organisation Partners of the Ramsar Convention on Wetlands, who include Wetlands International, proposed an emergency recovery plan under which we and our partners called for action to reverse the rapid worldwide decline in freshwater biodiversity overall.

In terms of global conservation and restoration targets – which we invite others to adopt and drive towards – Wetlands International proposes global, habitat-based targets, based on the best available science, that reflect the scale of change needed to improve ecological and social resilience. A fuller explanation of the basis of these targets and the key references are available on our website. This will be kept updated as we work with others to improve and expand the set of targets.

By addressing these targets, actors will be contributing to achieve the Global Goals, 2030. National and regional responses to such wetland targets can be stimulated and guided by realtime information using integrated data sets, trend analyses and standard accounting for wetland habitats, such as provided by Global Mangrove Watch (www.globalmangrovewatch.org).

We invite partners, wetland scientists and policy makers to work with us to improve, refine and expand this set of targets and to enable their uptake and monitoring. And further, to scope and develop the wetland knowledge platforms which can help enable effective implementation.



Peatlands

The remaining undrained peatland carbon stores remain intact and 10 million hectares of drained peatland are restored, by 2030.

Locking up carbon in peatlands, as well as the maintenance and recovery of other values of drained and degraded peatlands, including their roles in water storage and biodiversity conservation, depends on keeping them wet or fully restoring them through re-wetting. The on-going high greenhouse gas emissions due to drainage means that for peatlands to become carbon neutral in accordance with the Paris Agreement, the remaining peatlands must be conserved and around 50 million hectares need to be rewetted to prevent carbon emissions, by 2050. This is the total current area of drained peatlands, taking into account that around 15 million ha of former peatlands is not restorable as the peat has already been completely oxidised (Greifswald Mire Centre, 2021).

Materialising large scale conservation and restoration efforts to achieve this outcome depends on peatland assessments, technical and institutional capacities, as well as finance, policies and social acceptance. Therefore, a target of 10 million hectares is proposed as a feasible while still challenging target for 2030.



Peatlands surrounding the region of Moscow, Russia.

Mangroves

A net gain of 20% in global mangrove cover, by 2030.

Mangroves are highly valued for their rich biodiversity, the nursery role they provide in fisheries, their potential to store vast amounts of carbon (so-called blue carbon) making them critical for climate regulation and mitigation, as well as for protecting coasts from erosion and enabling communities to adapt to climate change. Of an estimated original 33 million ha of mangroves, half was lost, with an additional 15-20% severely degraded, by 2015. At this rate of loss mangroves will disappear over the next 100 years.

The target aims to address feasibility as well as the need for large scale recovery to restore ecosystem functionality. It takes into account likely positive changes in coastal zone policies and practices as well as the permanent loss of former mangrove land to aquaculture, farming and urban development and limitations imposed by climate change.

Rivers and floodplains

Remaining, free-flowing rivers and floodplains remain intact and river connectivity is enhanced, restoring floodplain ecosystem functionality and area.

Riverine floodplains are very complex, dynamic and diverse ecosystems. As producers of food and regulators of water and carbon, their health is of huge importance to freshwater biodiversity, global climate and development agendas. Dams, levees and other factors such as rapid spreading of alien invasive species often severely disrupt flow and sediment pulses. These affect river – floodplain interactions and can cause a cascade of effects which have real consequences for biodiversity, human livelihoods and societal resilience to water shocks.

It was recently estimated (Grill et al,2019) that only 37 % of rivers longer than 1,000 kilometres remain free-flowing over their entire length and 23 % flow uninterrupted to the ocean. There are many advances in understanding how climate, human interventions and floodplain dynamics influence the natural functions of the riparian system, biodiversity and ecosystem services. However, the development of a simple global target to drive conservation and restoration remains a challenge at the time of writing.



Tidal flats of the Yellow Sea, China.

Tidal Flats

A net gain of 10% in area of tidal flats, by 2030.

Protection and restoration of tidal mudflats is vital and urgent to conserve globally threatened biodiversity in light of sea level rise associated with current and future climate scenarios, as well as coastal and inland human development and associated changes in river discharge and sediment flows. It is estimated that 16% of tidal flats have been lost over the last 3 decades (Murray et al, 2019). The target to restore 50% of the recent loss over the past three decades (1990 benchmark), means approximately a net gain of 10%. This modest target recognises the low feasibility of mudflat restoration, given the increasing human development demands in coastal zones. The target is meant to imply not only an area gain but also return to a state of good ecological functionality, to support the full range of ecosystem services. Within this, priority should be given to protecting and restoring critical sites for migratory shorebirds.

Wetlands for migratory waterbirds:

50% of the estimated 7000 critically important sites identified along flyways come under favourable management, by 2030.

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Eurasian Spoonbills, in wetlands of the Netherlands.



REALISING CHANGE FOR WETLANDS

We have identified five key ingredients needed to transform the state and status of the world's wetlands:

1. We need a society-wide response to wetlands decline. This will require both "bottom-up" movements by civil society and "top-down" approaches by governments and the private sector, as well as inter-sectoral collaboration and novel partnerships. Lifestyle changes by consumers and strengthened civil society organisations can both push changing attitudes inside governments and companies. In response, governments must give higher priority to wetlands as nature-based solutions to economic, engineering, climatic and societal problems. Meanwhile, companies that operate in or affect wetlands must alter their business models to give weight to non-financial results.

2. We need to integrate wetlands conservation into thinking about wider landscapes.

Protected-area approaches to wetlands have largely failed to conserve their biodiversity and ecosystem services, because they treat wetlands as isolated islands in the landscape. This ignores their interconnections, particularly to rivers. Recognising that most wetlands are one part of a complex hydrological and ecological system is the key bringing their values to the fore and understanding the risks they face, and the risks their degradation pose.

3. We also need to integrate wetland protection and recovery into wider agenda for development and adaptation to climate change. This means recognising the economic value of wetlands and their ecosystem services for people's livelihoods and cultures, as well as their roles as carbon sinks and in reducing risks of disasters such as floods and

droughts. Conventional thinking still sees hard engineering as the main means of addressing such climate risks. But often these prove illsuited to the task and expensive, compared to the nature-based solutions offered by sustaining and restoring wetlands.

4. Inclusive governance mechanisms that underpin how rights and responsibilities are shared are needed to enable functional landscape solutions which provide multiple benefits to stakeholders. Imbalanced power relations contribute to conflicts over scarce water and land resources and are increasingly a factor in contributing to over-exploitation of natural resources, wetland degradation, human displacement and forced migration. The hierarchy and tensions between different user groups need to be overcome and inclusive decision-making is needed to underpin sustainable water management, improved wetland management, social cohesion and food security.

5. An enabling institutional environment will support natural resource governance and to facilitate take-up of the innovative finance options becoming available. The nature of the institutional environment will influence whether different financing mechanisms are possible; the extent to which property rights, laws and regulations on ecosystem protection are upheld; and whether powerful interests prevail over those of more vulnerable wetland resource managers. It is vital to establish which combination of institutional and financial environments is best suited to each situation.



Restoration of flood forest in Mali's Inner Niger Delta – called "local banks" due to the value of their products



WHAT WE WILL CONTRIBUTE

Over 2020-2030 Wetlands International aims to safeguard and restore tens of millions of hectares of wetlands, bringing multiple returns for nature and people.

By stepping up action to safeguard and restore wetlands we will save nature, better capture and store water, improve food security through sustaining agriculture and fisheries, keep carbon in the ground, and safeguard cities and settlements from the worst impacts of floods and droughts.

To achieve this, we will use our extensive and long-term knowledge and experience and work with key players with shared goals and complementary capabilities to bring major wetland landscapes into long-term recovery programmes. This will involve addressing levers of change from the local to global scales. Through our own programmes, we will establish

We combine global and localised approaches:

By using our local presence, track record and partner networks in countries and regions of the world to initiate, design and bring sustainable wetland landscape recovery programmes to fruition, by accessing green finance.

By collaborating with governments and city authorities to provide technical guidance on wetland nature-based solutions and establish multi-stakeholder partnerships to support implementation;

By influencing the agendas of governments, companies and finance institutions to prioritise wetlands as a means to build a more resilient, healthier society.

and demonstrate the pathways for generating and sustaining impact for people and nature across whole landscapes.

And coupled with this, we will influence the actions and investments of others to multiply our impact. By joining forces with partners, we intend to elevate wetland solutions in public and private sector agendas and gain the traction needed to bring wetland solutions into economic recovery, climate action and development programmes globally. By working in this way, it is possible to reach the tipping points in wetland recovery that will make a world of difference.

OUR THEORY OF CHANGE



INSPIRE:

To create societal demand for wetland action

We aim to inspire by engaging both heart and minds. We bring attention to the critical issues facing wetlands, as well as the levers for change. We do this initially through ecological assessments, predictive models, scenario development and trend analysis. We then convey these insights through storytelling, art, education, experimentation and innovation. We engage with partners and networks at local and global scales to inspire and influence public and private sector agendas, ultimately to address the drivers of wetland loss and degradation, and encourage participation in initiatives to safeguard and restore wetlands.

MOBILISE:

To enable action and create conditions for upscaling

We mobilise action through dialogue, analysing different options for land and water management. In this way, we build coalitions of actors for implementing activities that reconcile different uses of wetland natural resources and integrate the values of healthy wetlands into the local economy. Then we work with governments and others to integrate our ideas into development plans. This is enhanced by establishing training courses and communities of practice to mainstream our ideas and provide a sound platform for scaling up solutions in future decision-making.

INSPIRE

We:

- Share insights and knowledge
- Encourage innovation
- Influence agendas

MOBILISE

We:

MOBILISE

- Enable dialogues
- Build coalitions around shared vision
- Identify and pilot landscape solutions

UPSCALE

We:

UPSCALE

UPSCALE: To increase the scale of our impacts by enabling others to implement solutions

Upscaling involves replicating successful outcomes and combining forces with partners to head off damage and encourage positive change at scale. Through strategic alliances, we gain attention from a wider range of actors to influence thinking and agendas, transform policies and attract finance. Through encouraging enabling policies and regulations alongside improved standards and behaviours of companies, we open up public and private sector investment in wetland solutions across landscapes and in cities.

We develop multi-stakeholder partnerships to help shape and pursue ambitious wetland visions across landscapes. In this, we encourage local actors to be powerful agents for change. For example, we support groups of villages which face similar environmental challenges to identify common priorities and advocate for investment via local and regional plans. We connect landscape partnerships to finance through investors who are committed to bring multiple returns for people and nature.

OUR STRATEGIC FRAMEWORK



According to our strategic framework, we work in **three wetland landscape types** to upscale solutions and achieve six outcomes. In turn, these result in three impacts, Healthy Wetlands, Resilient Communities and Reduced Climate Risks.

Our strategic framework describes how we organise our work and measure our performance. For 2020-2030, we are orientating our work to achieve three, interconnected global impacts: healthy wetlands, resilient wetland communities, and reduced climate risks.

Our vision, targets and strategic interventions are shaped according to landscapes. We focus on three broad categories of wetland landscapes: deltas and coasts, rivers and lakes, and peatlands. "Streams" of work are defined according to the specific contexts of these wetland landscape types. We measure our progress across these three streams according to the following six outcomes.

Healthy Wetlands

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Wetland habitats and functions safeguarded and restored: We aim to help conserve a selection of the most

intact wetland ecosystems and restore others within a full range of wetland types across the world. We also aim to restore other freshwater systems, peatlands, deltas and coastal ecosystems for their intrinsic, cultural and ecosystemservice values. We will prioritise ecological networks that connect landscapes, such as flyways and swim-ways.

> Wetland species recovered: Building on our long track record for waterbird conservation, we will contribute to the

conservation of wetland biodiversity by working on selected flagship species and groups of species linked to specific habitats.

Resilient Communities

Water and food secured for wetland a B., á communities: We aim to prevent further wetland loss and

degradation that undermines the natural productivity and water storage capacities of peatlands, floodplains, mangrove forests, deltas and lakes. We aim to improve and diversify the livelihoods of people dependent on wetlands, and promote best practices in agriculture and aquaculture, integrating wetland values into the local economy.

We will in particular strive to resolve situations where deterioration of wetlands - caused by upstream abstraction, climate change or population growth -contributes to loss of livelihoods, human displacement, conflict and migration. Where necessary, we will use peacebuilding and conflict resolution measures to address imbalanced power relations between stakeholders, building capacity for vulnerable and marginalised people to defend their rights to water and wetland resources.

Reduced societal conflict and displacement from wetlands:

Reduced **Climate Risks**



Wetland carbon stores secured and enhanced: We aim to bring wetlands into activities

to adapt to and mitigate climate change, which is otherwise a threat to the integrity of all wetlands. Improving the condition of peatlands, river systems and coastal ecosystems such as mangroves, saltmarshes and sea-grass beds will also reduce their emissions of greenhouse gases and return many to their role as carbon sinks.



Wetland nature-based solutions integrated into infrastructure developments: We

aim to steer urban water infrastructure investment and landuse planning towards using wetlands to meet challenges such as water insecurity and flooding that are conventionally addressed by civil engineering – an approach that often causes further loss and deterioration of wetlands.



INTRODUCING STREAM-SPECIFIC STRATEGIES

In the following sections, we set out the context, global values and key challenges for safeguarding and recovering three broad types of wetland landscapes: Coasts and Deltas, Rivers and Lakes and Peatlands. We state a long-term goal and identify enablers for positive change and set out targets for 2030 per Impact area – Healthy Wetlands, Resilient Communities and Reduced Climate Risks. We describe the main kinds of interventions we will make to achieve these.





Global values

Wetlands in deltas and along coasts, including mangroves, salt marshes, seagrass beds and mudflats are rich and diverse habitats for wetland biodiversity. As connectors between marine, freshwater and terrestrial ecosystems they serve as ecological corridors that provide breeding grounds for fish and other marine fauna, stopover sites for millions of migratory birds, and hunting and grazing grounds for visiting megafauna from sharks to tigers. They store large amounts of carbon in biomass and soils – typically more than equivalent areas of rainforests – and by regulating flows of water and sediment they contribute to building robust and diverse coastlines.

All this makes them important for humans too. As fishing grounds, shelters and places for aquaculture and recreation, they sustain hundreds of millions of livelihoods, many of them directly dependent on wetland services. Coastal wetlands provide vital protection from storms, floods and salt water intrusion and in some cases even sea level rise. With almost a quarter of the world's population located on lowlands within 100 kilometres of the ocean, the risks that deterioration of coastal ecosystems pose in an era of climate change are increasing fast.

Key Challenges

Coastal wetlands are being invaded, fragmented and degraded by economic developments such as infrastructure projects, ill-advised coastal protection schemes, sand mining, agriculture and aquaculture. As well as damaging ecosystems, such projects disturb sediment and water flows, causing cascading effects along hundreds of kilometres of coasts. A piecemeal approach to countering such threats is unlikely to work. But integrated planning at the scale necessary is hard, when jurisdiction in coastal and intertidal areas is often unclear, competing claims for land exist and capacities for cross-sectoral collaboration are lacking. Nonetheless, it is essential if we are to halt the slide to coastal insecurity and turn the tide towards maintenance and restoration of wetland resources.

Climate change, coupled with rising sea levels and ocean acidification, pose increasing challenges for coastal regions that include flooding, coastal erosion and saline invasion of underground freshwater reserves. Meanwhile, the ability of wetlands to maintain themselves by migrating inland is often thwarted by coastal defences and other infrastructure. Their further decline will release their carbon into the air. Such impacts remain insufficiently accounted for in coastal planning. To safeguard and restore coastal wetlands requires policymakers to fully appreciate the values they offer and the risks posed by their loss.



Enablers for change

Critical external enablers to address these issues over the coming decade include:

Inspire:

- The establishment of global targets for restoration and enhanced management of coastal resources, plus strategic partnerships for enhanced management of the marine environment, such as the Global Mangrove Alliance noted above, can provide momentum for public-private collaboration across sectors;

Mobilise:

- Momentum built among development banks, government agencies and engineering firms to promote combined green-grey coastal engineering approaches, in line with Building with Nature principles;
- Increased recognition of coastal wetland values in climate policies and plans;

Upscale:

- Increased interest amongst companies and government agencies to invest in conserving and restoring coastal wetlands for their carbon values;



Our Goal

Our goal is to safeguard and restore coastal wetland ecosystems as essential features of resilient and productive coastal landscapes. We will achieve our goal by tailoring our work to the different contexts we typically encounter in our target areas. Sometimes all of these approaches may be employed within different zones of one large coastal landscape.



Healthy Wetlands

To safeguard and restore the most intact coastal wetlands, which have high value for biodiversity and ecosystem services, we will focus our efforts on reducing pressures from infrastructure development, resource overexploitation and conversion to other land uses by incentivising ecosystem conservation and restoration.

This includes a focus on conserving high value mangrove landscapes and associated habitats in Africa, Asia, and Latin America and the protection and restoration of critical staging areas for migratory water birds in heavily developed areas (flyway bottlenecks) in Latin America and Asia.

We will enable conservation outcomes by mobilising government, community groups and other local stakeholders for joint management.

- Build out a Global Mangrove Watch platform that provides real-time information on changes in status, value and distribution of mangrove ecosystems, provide a basis for integration of mangroves into climate and development policy and guide conservation and restoration practice on the ground.

- Develop integral management programmes for high conservation value mangrove sites and associated habitats and connect these in regional programmes.

- Conserve and restore key sites for migratory

birds along heavily developed coastlines.

- Conserve selected coastal wetland sites for the exceptional role they play as stop over sites for migratory birds.

These interventions will help to safeguard high-value coastal wetlands and critical wildlife migration corridors, the active conservation of species of high conservation value and the large-scale restoration of mangroves and other coastal wetlands.



By 2030, we aim to safeguard 2 million hectares of high value coastal wetlands, including those sites which make up vital wildlife migration corridors.

Resilient Wetland Communities

To integrate wetland values in the coastal economy, we need to reconcile conservation and restoration with production systems. To do this, we will work in a range of productive landscapes, where intact wetlands straddle lands that are used for rice farming, cattle grazing and aquaculture production. This will be achieved through enabling management plans across 5 major deltas and coastal zones which ensure sustainable wetland use.

Harmonisation of different land uses will be achieved by promoting adoption of site management practices that maximise benefits from ecosystem services such as coastal protection and water purification and minimise environmental damage from agriculture and aquaculture. We also aim to enhance sustainability across the supply chain of agriculture and aquaculture products.

We will:

- Mobilise large-scale landscape restoration programmes, ensuring recovery of environmental services and enhanced productivity of agriculture and aquaculture schemes;

- Support sustainable production of wetland commodities produced in wetland areas (such as artisanal fisheries, shellfish, honey, timber);

- Support models for sustainable agriculture and aquaculture production (shrimp, rice, cattle) in wetland areas, through on-site management planning and by promoting certification and operationalisation thereof;

- Develop masterplans and sustainable management guidelines ensuring enhanced management of deltas.

These interventions will result in agriculture and aquaculture practices that are more closely aligned to the imperatives of ecosystem enhancement and climate resilience.



By 2030, we aim to integrate wetlands into 8 million hectares of coastal production systems.

Reduced Climate Risks

In degraded and heavily modified environments, including urban areas, we will work with governments, knowledge institutions, private sector partners and investors to enable the revival of natural capital by integrating engineering practices that combine nature-based and conventional hard infrastructure solutions to coastal engineering challenges. We will upscale our impact through strategic alliances which enable sector-wide mainstreaming of "Building with Nature" (see Box).

We will support the development and implementation of blue carbon policies, strategies and plans, leveraging substantial investment for conservation and restoration of mangroves and other blue carbon ecosystems.

We will:

- Promote large-scale uptake of Building with Nature across the water sector;

- Promote sustainable development of harbours and other coastal infrastructure;

- Enable adoption of Building with Nature principles by development banks and branch organisations from the engineering and marine contracting sectors;

- Integrate strategies for coastal wetland conservation in the national climate action plans;

- Collaborate with the private sector to help them account for, avoid, minimise and compensate

carbon emissions, focusing on companies that have a direct footprint in coastal and marine environments;

- Mobilise large-scale initiatives that leverage blue carbon finance to scale up the conservation and restoration of high carbon coastal wetlands, with multiple benefit outcomes.

These interventions will result in growing adoption of and investments in nature-based solutions to climate mitigation and adaptation and give a strong boost to socially and environmentally inclusive coastal zone development, while safeguarding and restoring coastal wetlands.



By 2030, we aim to mainstream Building with Nature and promote blue carbon solutions, influencing €10 billion of investments in coastal infrastructure solutions.

Where we work in Coasts and Deltas

We work in some of the most valuable and threatened coasts and deltas around the world, requiring urgent attention. The areas in blue includes coastal wetland landscapes where we work for the long-term as well as those where we have plans or ambition to work during this decade.



About Building with Nature

Building with Nature is an engineering approach that integrates ecosystem restoration and conservation measures with traditional civil engineering, in support of sustainable and climate-resilient coastal development. Instead of 'fighting' nature with dams and dikes, Building with Nature works with nature. For example, by allowing river flows and sea currents to reinforce sediment flow and accumulation as a means to protect coastlines. Or by restoring ecosystems such as mangroves so that they can protect against extreme events such as storms and high tides, while offering valuable 'natural capital' in the form of shellfish, timber and recreational opportunities. Building with Nature solutions are adaptive, and typically cheaper to construct and maintain than static infrastructure. The environmental co-benefits enable more productive land-use, especially when local stakeholders are involved in their design, construction and maintenance.



The Marker Wadden is an artificial archipelago under development in the Markermeer, a lake in the Netherlands.

How we make a difference

We have inspired..

the case for mangrove restoration by using satellite imagery to develop maps that track changes in mangrove status and distribution. Our data is used by partners to prioritise restoration sites, quantify carbon budgets and identify threats from conversion, erosion and pollution. This near-real-time monitoring system enables tracking of illegal mangrove conversion, providing timely information for law enforcement. The data will also enable us to evaluate and improve restoration practice.

We have mobilised..

local community groups in the Saloum delta of Senegal to develop management plans for their mangroves. In return for their engagement, we have provided investment for new livelihood activities, including beekeeping, smallscale farming and sustainable fisheries. Working with business schools, we have also helped the communities to upscale these initiatives by establishing savings groups and accessing microfinance.





We have upscaled..

our work on Building with Nature in Indonesia, following an initiative for stabilising coastal sediments to encouraging mangrove growth near Semarang in Java. The success of the technique for improving coastal resilience prompted the Indonesian Ministry of Marine Affairs and Fisheries is replicating it across the country. We are now working with the several other Asian countries to spread this approach across the region.



Realising our ambition through big ideas

Building with Nature Global

A global initiative that builds an enabling environment for large-scale adoption of nature based solutions, by demonstrating best practice solutions on the ground, informing policies and legislation and by promoting large-scale in tangible propositions.

Mangrove Capital

A global initiative that brings the values of mangroves to the fore, and that supports integration of mangrove conservation and restoration in policies and plans for sustainable development and climate mitigation and adaptation.

Global Mangrove Watch

A global initiative that supports development of geospatial data sets on mangroves that provide real-time information about changes in their health and distribution, that documents root causes and captures their full range of values. The data will be disseminated to policy makers and practitioners through an online platform that provides for easy automated data assessment based on artificial intelligence and cloud computing.



Field visit for Building with Nature partners from Asia to the Marker Wadden, Netherlands

- We are an active partner of the **Ecoshape Building with Nature** Consortium, in which we collaborate with water engineering companies, knowledge institutes and governments.

Partnerships and platforms for change

- We work closely with the four other founding partners of the Global Mangrove Alliance: **Conservation International, IUCN,** The Nature Conservancy and WWF; as well as the broader membership base of the Alliance, including the Red Cross movement, Wildlife **Conservation Society and the** Zoological Society of London;

- We are actively exploring landscape scale mangrove recovery programmes with companies Permian Global, Boskalis and Greenchoice, with whom we have entered into partnership;

- In countries, we work with dozens of civil society organisations, academic bodies and government.

A boat on the Rupununi River in Guyana. The territory is a hydrological meeting place, where creeks that flow south into the Amazon mingle with others that flow north to the Atlantic.



Ûr



The freshwater marshes of the Paraná Delta are widely used for cattle grazing.

Global values

Rivers are freshwater arteries that connect and sustain diverse freshwater wetlands, including lakes, inland deltas, swamps, marshes and the rivers themselves. They host some of the world's most charismatic species, including hippopotamuses, crocodiles, jaguars, beavers and eels. Connecting land and sea, they also enable fish migration and facilitate waterbird migrations, as well as storing and regulating water. They are a direct source of food and the basis of livelihoods for hundreds of millions of people, via fisheries, grazing lands, forests and flood-based agriculture, and provision of water for domestic, agricultural and industrial use. In many parts of the world, particularly arid regions such as the Sahel, freshwater wetlands are central to sustaining human health and wellbeing. Their conservation and sustainable use maintains resilient water systems that underpin peaceful and stable societies. Their loss, as a result of ill-advised dams, irrigation schemes and other development projects that abstract their water or change flow regimes, disrupts these relationships and can have disastrous consequences.

Key Challenges

Safeguarding and restoring healthy, resilient freshwater ecosystems is key to meeting global goals for food, water, energy, peace and climate change. Most rivers are dammed and many are cut off from their natural floodplains. Only a third still flow freely. Some 30% of freshwater wetlands have been diked and drained to oblivion in half a century. Rivers have dried up and fish migrations have ceased. This fragmentation of the world's freshwater systems is a little-told ecological tragedy. Freshwater biodiversity is in free fall, with populations down 80% since 1970. Those living and using these wetlands are among the most marginalised in society and wetland loss is further reducing their resilience, compounding tension, displacement and conflict.

Protection of freshwater ecosystems has mostly failed because it has concentrated on individual wetlands, while neglecting the water systems that sustain them. Climate impacts

on water availability will exacerbate human impacts. Increasingly, the drive to reduce carbon emissions is accelerating hard infrastructure development for flood defence and hydropower. Perversely these actions risk further degrading wetlands and impacting water availability for all.

Much of this has happened through ignorance. So a major challenge is to raise awareness of the societal value of wetlands and freshwater ecosystems. This will require championing the voices of those communities who understand and depend directly on them, often over those of powerful water-using industries, such as hydropower, irrigated agriculture, shipping and mining. It will also require making the case to investors, engineers and policymakers to maintain wetlands and freer flowing rivers as cost-effective solutions to problems such as floods and droughts and as part of equitable solutions to food and water security for climateaffected communities.

Dry season in the Inner Niger Delta

Enablers for change

Critical external enablers to address these issues over the coming decade include:

Inspire:

- Increased attention and focus of environmental campaigns on water as the 'master variable' linking biodiversity and climate change crises
- Global policy frameworks and initiatives that explicitly set wetland targets as part of wider development, climate change and restoration goals such as the UN Sustainable Development Goals and Decade on Ecosystem Restoration

Mobilise:

- Strengthening and diversifying civil-society networks and alliances linking freshwater wetlands with wider socio-economic development dialogues of government, private sector and major investors
- Multi-stakeholder participation in water governance and stewardship from basin to wetland landscape scale

Upscale:

- Increased commitment to invest in more responsible practices by agriculture, hydropower and extractive industry
- Increased momentum and commitment from major corporate actors and industry platforms to mobilise nature-based solutions at landscape scale, for example through water stewardship and carbon investment, as a means to build resilience in watersheds.

Our Goal

Our Goal is to catalyse investment to safeguard and restore rivers, lakes and their accompanying wetlands, as part of wider freshwater systems; and to provide water security for people and nature, climate resilience, and sustainable and peaceful landscapes.

While the issues and pressures affecting freshwater wetlands are regionally and globally recognisable, they can only be solved locally, at the basin and ecosystem levels. We will focus our work to upscale freshwater wetland conservation and restoration in a series of river and lake landscapes including some of the most charismatic and pressured wetland systems in the world.

These will include the Sahelian floodplain wetlands, Paraná-Paraguay and Ganges rivers and wetlands, Great Lakes Region of the Nile Basin, the high altitude wetlands of the Andes and Himalayas and freshwater rivers and wetlands of the Mediterranean Basin. Building on our track record and achievements in these places we will seek to influence and enable global and regional socio-economic development actors such as the regional development banks and national governments through their commitments to implementing Agenda 2030 and NDCs.



Water hyacinth in Paraná delta, Argentina.

Healthy Wetlands

To safeguard and restore the ecological character and hydrological connectivity of river and lake systems, we will focus on reducing pressures and mitigating the impacts from infrastructure development, wetland over-exploitation, agricultural development, hydropower and extractive industries and promoting integrated management plans which are compatible with maintaining wetland ecosystem functioning and the life cycles of wetland species.

We will:

- Communicate species and wetland status trends and scenarios linking them to biodiversity, policies, goals and targets

- Enable innovation for scalable best practice wetland management and tools and approaches

- Stimulate the uptake and adoption of decision support tools and environmental flows that safeguard water regime for resilient wetland ecosystem services

- Enable uptake of integral management solutions to conserve key river and lake species, linked with decisions over habitat conservation and restoration and water flows affecting flyways and swimways

- Influence major investors such as development banks to align sustainable development investment and related safeguards to further integrated wetland and water resilience - Support the formulation and implementation of master plans for sustainable development at the basin or major wetland system scale

- Embed and advocate for improved water resilience measures to be targeted in government policy commitments

This will result in biodiversity and ecosystem services being safeguarded and enhanced for many high-value river and lake systems.



By 2030, we aim to safeguard 10 million hectares of high value river and lake wetlands, focusing in five basins.

Resilient Wetland Communities

To enable stakeholders in river and lake landscapes to sustain and improve their local economy, we need to reconcile agriculture, grazing and fishery management with wetland conservation and the maintenance or restoration of the natural water dynamics. To do this, we will work within river and lakes basins to enable inclusive and just governance of water and wetland resources and promote management practices which are harmonised with maintaining the resilience of the water and wetland systems.

In so doing we will create sustainable wetland economies that reinforce resilient, stable and socio-economically vibrant communities.

We will:

- Communicate knowledge-based analyses of the relationship between human security and wetland condition, to inspire investment and action that seeks to safeguard and restore river and lake wetlands

- Pilot local scale best practices for sustainable agricultural use of wetland natural resources

- Strengthen the capacity of community groups and their networks, to enhance the voices and agency of vulnerable wetland communities in land and water governance and wetland management

- Advocate for sustainable water resource and agricultural management practices in key policy

and practice platforms

- Participate in and enable coalitions that reduce and resolve local conflicts over wetland natural resources

- Stimulate the development and financing of sustainable socio-economic plans that safeguard and enhance wetland economies, alongside wetland conservation and restoration, at the basin or landscape scale

This will result in joined up resilience of society and ecosystems, with wetland communities profiting from improved and regained benefits from wetlands and exerting greater control over their future management as part of wider socioeconomic development.



By 2030, we aim to safeguard and restore 60 million hectares of wetlands as integral elements of productive river and lake landscapes.

Reduced Climate Risks

Climate change impacts in both urban and rural settings and from high mountains to the coast, are being felt through less predictable fresh water availability and increased incidences of drought and flooding. We will seek to ensure that freshwater wetlands are safeguarded and restored to act as nature's water regulators, as a central strategy for addressing climate adaptation, combatting land degradation and reducing disaster risks.

We will:

- Communicate the risks and opportunities that climate change and related adaptation measures poses to river and lake wetland resilience

- Promote Integrated Risk Management approaches (see box) to tackle the root causes of rising water risks across whole landscapes and basins, building in wetland nature-based solutions in climate adaptation and disaster risk reduction plans and investments

- Influence the design of water infrastructure schemes to help avoid maladaptive approaches that lead to wetland degradation - and advocate for incorporation of wetland nature based solutions

- Promote a systems approach to reduce urban water risks, enabling the design and implementation of inter-connected networks of natural and semi-natural wetlands, that store and regulate freshwater flows and provide a range of ecosystem services - Bring attention to the role of river and lake systems in regulating carbon stocks and emissions and mobilise carbon financing for landscape restoration at scale.

This will result in increased recognition of and investment in safeguarding and restoring freshwater wetlands as nature-based solutions to accelerate climate adaptation in relation to water risks, in both urban and rural environments.



By 2030, we aim that €500 million is committed to enable nature-based solutions in freshwater wetlands, for climate mitigation and adaptation.

Where we work in Rivers and Lakes

We work in some of the most valuable and threatened river and lake basins around the world requiring urgent attention. The areas in green include basins where we work for the long-term as well as those where we have plans or ambition to work in this decade.



Integrated Risk Management in Mahanadi Delta, Odisha, India

Wetlands International has worked in the global alliance "Partners for Resilience" to apply an Integrated Risk Management approach since 2010. It involves awareness of the importance of ecosystems and landscapes as buffers against hazards like droughts or floods and as a source of livelihoods, and combines this with communitybased disaster risk reduction and climate.

The lives of millions of farmers and fishers living in the Mahanadi delta are routinely threatened by tropical cyclones and their livelihoods have been impacted by annual problems of water scarcity. We discovered poor coordination of resources provided by aid programmes. Our root cause analysis highlighted that the operation of upstream dams and use of embankments was interrupting natural flows and freshwater

flooding needed to nourish the delta. And the loss of coastal ecosystems had left the villages more exposed to the impacts of more frequent storms and cyclones.

Villagers were encouraged to join forces and take local action for example to clear out ditches and start using salt-tolerant crops. Capacity strengthening and grouping of villagers who share the same risks in distinct zones of the delta, enabled influence of policies and investments for specific disaster reduction measures. As a result, livelihoods were made more resilient by altered dam operation and wetlands were restored as natural buffers to floods and to coastal erosion. Crucially, thousands of lives were saved in subsequent cyclones as people were better organised to seek refuge in cyclone shelters.



The Mahanadi delta and Kosi-Gandak floodplains in India are home to 21 million people. We're helping vulnerable communities adapt to climate change and bounce back from flooding.

How we make a difference

We have inspired..

a renewed focus on Sahelian wetlands by demonstrating their importance to peace and security. Through our "Water Shocks: Wetlands and Human Migration in the Sahel" report, we demonstrated the relationship between wetland degradation, water insecurity and human displacement and conflict. Building on this and our work in Sahelian wetlands, we have argued for restorative action on wetlands to address the root causes of instability across the region. This has been acknowledged by the G5 Sahel inter-governmental cooperation framework and African Union, leading to a commitment to integrate wetland measures into the Great Green Wall Initiative.

We have mobilised...

cattle ranchers in the Paraná delta to explore, test and implement better production practices. By sharing our knowledge on the role of livestock intensification in the degradation of wetlands, we have initiated dialogues with farmers and piloted changes to land management and stocking practices. By developing a label certifying this production as wetland friendly, we have laid the basis for large scale change across the delta, reducing fire risk and wetland restoration, management and governance.





We have upscaled..

decades of successful work on wetland restoration, management and governance at Chilika lagoon and Loktak lake in India building a national scale programme to enable wetland management to take account of risks induced by climate change. We also work as the knowledge partner to Indian national and state governments to support the roll-out of "100 wetlands" programme, a transformative idea to rejuvenate wetlands to make the country more water secure. This includes designing management interventions to recover floodplain wetlands of the Ganges.



Realising our ambition through big ideas

Corredor Azul

Is a major partnership programme to safeguard the free flow and condition of three major wetland systems (Pantanal, Ibera marshes and Paraná Delta) and associated livelihoods along the Paraguay-Paraná fluvial corridor which flows from Brazil, Paraguay and Bolivia down to La Plata river in Argentina. The choice of development model over the next 10 years will seal the fate of the region.

The Blue Lifelines for a Secure Sahel (BLiSS) initiative

Aims to build the resilience of poor and vulnerable rural communities of the Sahel in the face of growing water shocks and food insecurity, by improving the status of wetland systems - the Blue Lifelines. By adding value to existing climate change adaptation, land degradation and wider development initiatives across the region, at least 6 major wetland systems will be revived, benefitting around 10 million people.

Rivers and Lakes Watch

We aim to build a global system, based on geospatial data sets to express their full range of values whilst tracking root causes of river and lake wetland degradation and loss. The data will be disseminated to policy makers and practitioners through an online platform that provides for easy automated data assessment based on artificial intelligence and cloud computing.



Local communities talk about water stress along Ewaso Nyiro river, Kenya

- We are an active partner in the **Global Resilience Partnership**, connecting strongly on mobilising systems approaches and sharing best practice approaches to tackle water and food security and the intersect with human security

- In each region, we work in close collaboration with river basin organisations, government bodies, researchers and knowledge organisations.



Partnerships and platforms for change

- We have established a core partnership to drive forward the vision of "Blue Lifelines for a Secure Sahel", including CARE Netherlands, International Alert and the International Water Management Institute. Alongside this alliance, we collaborate with the African **Union Great Green Wall Initiative** and connect to many networks and partners, including the civil society networks and organisations of Partners for Resilience.



Bösenbechhofen, Höchstadt, Germany



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The Cuvette Centrale swamp in Congo is one of the most carbon-rich tropical regions in the world

Global values

Peat forms where dead vegetation fails to rot, usually because the ground is waterlogged. Soggy peatlands make up about half of the world's wetlands. They occur in all the world's regions from tropical rainforest to the Arctic. Peatlands support specialised biodiversity from the insect-eating sundew plants in temperate regions to orangutans in the tropics. They provide food and fuel for local communities. Peat organic matter is the planet's biggest terrestrial carbon store, permanently locking up carbon as long as it remains wet. All told, peatlands still contain more than twice as much carbon as all the world's forests. If managed well they can continue to sequester equally large amounts from the atmosphere. They are often important hydrological stores too. Their spongelike qualities mean they release water gradually, so reducing the risks downstream of both floods and dry rivers.

Key Challenges

Peatlands face numerous threats. Drainage is the biggest. Once drained, they offer large areas of thinly-populated land for timber plantations and, in the tropics, palm oil. In mountainous areas peat can be vulnerable to degradation through over-grazing, for instance in Mongolia and the Andes. Drainage causes land subsidence and floods, while raised risks of fires in the dried peat. Around Moscow in 2010 and in Indonesia several times in recent years, such fires have cause extensive smoke pollution and the deaths of thousands of people from respiratory ailments. The fires also result in large carbon emissions that typically are similar to the industrial emissions from India, and could accelerate with global warming. Making the case for their protection can be hard in the face of competing land demands. But it is at least as important for the global climate as protecting tropical rainforests.

Some countries have begun this, including Indonesia and China, which is restoring upland peat pastures by blocking drains. Turning such local initiatives into a global crusade is a key challenge. To meet global climate targets, drainage of tropical peatlands in particular needs to be phased out urgently. Globally, we propose a target of rewetting 50 million hectares of peatlands worldwide by 2050 to staunch emissions and allow peatlands to resume their role as carbon sinks. If given the technical capacity and access to finance, local communities can contribute significantly to the task of managing and rehabilitating peatlands. But long term success requires wetlands to become of value to local economies, including though forms of wet peatland agriculture, otherwise known as paludiculture. Progress has been made to identify and grow potential crops. However, their wider economic viability remains to be demonstrated.



Enablers for change

Critical external enablers to address these issues over the coming decade include:

Inspire:

- The growing interest of climate activists in taking up peatland issues. Sharing inspiring community success stories fuels growing interest and action-readiness at grassroot level, especially where the actions are achievable for an individual and make a measurable difference
- Increased interest in Citizen Science approaches that will extend our reach and penetrate new audience groups
- Increased interest by government in peatland restoration as a naturebased solution to reverse land degradation, reduce drought and flood risks and greenhouse gas emissions

Mobilise:

- The Global Peatland Initiative a platform with multi-sector partners which can champion and coordinate collective global and regional action and attract global donors
- Inclusion of peatlands as nature-based solutions in countries' carbon reduction commitments to secure long term and accountable commitments for protection and restoration and opening up large-scale finance
- Increased company interest for the development and adoption of voluntary standards for products grown in wet peatland agriculture

Upscale:

- The growing carbon financial market for the conservation and restoration of existing peat carbon stores



Our Goal

Our Goal is to scale up the conservation and restoration of peatlands as a contribution to biodiversity conservation, climate change mitigation and adaptation, and sustainable development. For this, it is vital to ensure that all remaining undrained peatlands stay intact, while 50 million hectares of drained peatland are restored by 2050.

We will apply a three-pronged approach to achieve this goal. To prevent degradation we will focus on enabling protection of the remaining most intact peatlands in all regions. To reduce degradation, we will reduce the impact of peat-based sectors through promotion of regulation and new industry standards which eliminate damaging practices such as drainage. Alongside this we aim to incentivise alternative wet agricultural crop production systems. To restore peatlands, we will enable hydrological and ecological recovery at a landscape scale. These three approaches are often all necessary to combine within different zones on major peatland landscapes. In all three approaches, we aim to promote the best combination of government control, community action and sustainable agri-business practice.

In particular, we aim to achieve the following targets and interventions in each of our three Impact Areas: Healthy Wetlands, Resilient Wetland Communities, Reduced Climate Risks.



Crops like purun can make use of peatlands without the need for draining. South Sumatra

Healthy Wetlands

To safeguard peat-rich landscapes and their biodiversity, we will focus on improving protection status, preventing damaging practices and incentivising restoration and sustainable management.

This includes a focus on safeguarding the biodiverse, mega-peat stores such as those in the Arctic and Congo basins and enabling integrated conservation and restoration programmes in high value peatland landscapes, including those remaining in Europe and Russia, Indonesia, the high mountain wetlands of the Andes and Himalayas, the Nile Basin in Africa, La Plata Basin and Patagonia in South America.

We will use our own knowledge and experiences together with that of our partners to demonstrate holistic landscape regeneration approaches create the conditions for upscaling peatland landscape recovery globally.

We will:

- Communicate the urgency and business cases for safeguarding the most intact peatlands, including to protect biodiversity, lock up carbon, combat permafrost thawing and land degradation, reduce water and fire hazards.

- Make peatland trends, our practical experiences, tools and knowledge available via global and regional platforms, to guide policy makers and practitioners.

- Support the integration of peatlands into national climate action plans, to unlock finance for conservation and restoration: prioritising Europe, the Russian Federation and Indonesia which together are responsible for 70% of global GHG emissions from drained peatlands.

- Work with intergovernmental agencies and finance institutions to establish mechanisms and mainstream methodologies and standards that enable protection of peat sinks for carbon, while safeguarding and enhancing biodiversity and ecosystem services

- Enable the development and financing of a global pipeline of landscape scale, peatland recovery programmes for multiple returns

These interventions should result in peatsmart public and private sector investments that safeguard the ecological integrity and functionality of peatlands and their carbon storage, while reducing the risk of floods and fires, and improving human health and natural biodiversity.



By 2030, we aim to safeguard over 20 million hectares of high value peatlands, including bringing 5 major peatland landscapes back into good ecological condition.

Resilient Wetland Communities

To enable communities living in and around peatlands to increase their resilience in the face of rising hazards (like fires and floods), it is necessary to develop sustainable local economies which are in harmony with and contribute to peatland conservation and restoration. We will do this by building their capacity to establish and diversify livelihood activities which are compatible with wet peatland environments. By connecting local community groups, creating an enabling policy environment and applying innovative finance mechanisms, we will incentivise and sustain community-based peatland management across whole landscapes.

We will stimulate upscaling of communitybased peatland management across multiple landscapes by showcasing inspiring examples of successful local economies in peatlands to upscale finance, stimulating innovation and cross-learning of communities, filling knowledge gaps and connecting with global learning platforms to share knowledge, tools and experiences.

We will:

- Communicate the essential role that communities can play in delivering sustainable peatland management alongside 'just' livelihoods

- Build capacity of local and indigenous peatland communities to increase their technical capacity and access to knowledge and resources to manage their peatland landscapes to reduce health and fire risks, while enhancing livelihoods and natural values - Work with national and local governments to embed and protect community tenure and enable a gender-inclusive tenure system

- Enable coordination and complementarity across government, company and communityled initiatives across whole peatland landscapes, through multi-stakeholder processes

- Promote and embed finance mechanisms that enable upscaling of economically viable, peatsmart land-use by local communities, including wet peat agriculture as a key component of landscape regeneration

These interventions should enable communities to restore natural peatlands, through more biodiverse landscapes with increased livelihood opportunities, reduced disaster risk and improved adaptation to climate change.



By 2030, we aim to enable communitybased conservation and restoration of 10 million hectares of peatlands.

Reduced Climate Risks

To address the dominant impacts of agriculture and forestry on peatlands, which drive degradation and GHG emissions principally through perpetuating drainage, we aim to influence the industry standards and practices. As well as ensuring avoidance of deep peat areas for new plantations, we aim to reduce the peat drainage in existing plantations and improve restoration management after land comes out of production. By incentivising the development and upscaling of commercially viable wet peat agricultural production using native species, it will be possible to speed up the withdrawal of drainage-based production systems.

To achieve this, we will work to enable the design, adoption and implementation of policies, investments and practices for climate smart peatland use through engagement with companies and industry groups, bringing our technical knowledge and experiences to the table.

Within landscape regeneration programmes, we will facilitate national governments, companies and communities to cooperate on reducing carbon emissions and reverse biodiversity decline, as well as to reduce risks to lives and livelihoods of fire, droughts, floods and subsidence.

We will:

- Lobby and provide technical advice via industry groups and platforms of extractive industries to introduce principles and incentives that enable the phasing out of drainage-based agriculture on peatlands

- Engage with infrastructure construction industry (windfarm, hydropower, mining and oil and gas) to reduce drainage and GHG impact

- Promote accountable adherence to peatland protection policies through International Finance Institutions and governments

- Pursue incentives to encourage wet peatland agriculture, including encouraging commodity markets to require accountable adherence to voluntary peat-wise standards

- Engage with stakeholders in peat-rich regions to establish plans and apply finance mechanisms that help to recover climate-proofed peat landscapes

These interventions should result in more powerful policies and streamlined delivery mechanisms to scale up the adoption of climate smart activities in peat rich landscapes, while achieving our targets on eliminating drainage and scaling up restoration.



By 2030, we will reduce the impact of peat based industries in 10 million hectares of peatland, with a focus on palm oil, pulp and timber.

Where we work in Peatlands

We work to safeguard and restore some of the most valuable and threatened peatlands in the world.



Wet peat agriculture

Wet peat can produce a whole host of economically viable products. Examples are sago for food and fibre and sphagnum as packaging and insulation material. Our joint work with Greifswald Mire Centre seeks to select the right crop for the right local context, to enable a sustainable local economy to develop alongside an end to peatland degradation and the encouragement of widespread restoration.



Jelutung, an indigenous peat swamp species that produces a natural latex, is being planted on abandoned agricultural land in Central Kalimantan, Indonesia.

How we make a difference

We have inspired..

the Mongolian Government to take steps to include peatlands in their NDC by mapping the extent of peatlands, visualising the large contribution that they make to the country's carbon emissions and supporting development of a package of management interventions that reduces these emissions.

We have mobilised..

action by communities in Indonesian peatlands, through small scale grants, technical advice and capacity development, to deliver both sustainable peatland management and livelihoods opportunities. Combining these grants in a few communities, has multiplied the benefits and inspired neighbours. By engaging communities in this way, we have also opened up the door for larger government peatland restoration investments.





We have upscaled..

peatland restoration in 100.000 hectares in the Moscow region of Russia, where drainage related peat-fires caused an estimated 50,000 deaths. We provided technical support to the Russian government to re-wet peatlands across 60,000 hectares, and improved fire control and monitoring across 40.000 hectares. This reduced emissions by an estimated 320,000 metric tonnes of CO2 per year. A further phase will re-wet a further 75,000 hectares and bring 140.000 ha of fire-risk control.



Realising our ambition through big ideas

European Peatland Recovery

We are working with landscape level partners, governments and investment firms to enable large-scale peatland re-wetting and restoration in Europe, for multiple returns.

Peat Watch

We aim to work with our partners to make publicly accessible maps that monitor peatlands and climate-related risks, such as greenhouse gas emissions, fire, soil subsidence and flooding, to act as an early warning tool and facilitate the adoption, monitoring and reporting of mitigating action. These data sets will be linked to the Global Peatland Database, enabling policy makers and practitioners to access information needed to address the root causes of peatland degradation and to optimise management for the full range of peatland values, through an online platform.



Planning the rewetting of Russian peatlands

Partnerships and platforms for change

- We are a founding member and active collaborator in the Global **Peatland Initiative.**

- We are working closely with Greifswald Mire Centre, combining expertise and joining forces to develop and drive forward a strategy to make a global difference to safeguard, restore, and sustainably use peatlands.

- We have a long-standing relationship with the investment firm Permian Global, with whom we collaborate to protect and recover tropical, carbon-rich wetlands, including peatlands. We will work with Commonland and the Landscape Finance Lab to scale up finance for peatland landscape recovery, connecting with additional investors.

- We actively engage in industry round tables including the Round Table for Sustainable Palm Oil and the Responsibly Produced Peat Foundation

- In countries, we work with governments, knowledge institutions and many civil society organisations



Mangrove Capital Africa team meeting in the Saloum delta, Senegal where drones are used to assist monitoring

FROM STRATEGY TO ACTION

Global to local

Our Strategic Intent is translated into action through regional strategies for Europe, Africa, Asia-Pacific and Latin America prepared by our Heads of Office and by Stream Implementation Plans for our three "streams": coasts and delta, rivers and lakes, and peatlands. Our "stream teams" include staff from offices across the organisation, who work together to set priorities and collaborate on programme development, partnerships, and knowledge sharing.

In this way, the Strategic Intent provides the direction and framework for specific strategies, plans and programmes led by our network offices. The organisation's collective achievements are reported in the network's Annual Review and by offices to their boards governing our various legal entities across the world.

Together with partners

In all our work, whether raising awareness of the value of wetlands, in advocacy to government and business, or in implementing projects with and for communities, we depend on partners. Indeed, they are integral to the way that Wetlands International operates. Investing in partners is a way to increase our reach and helps ensure the credibility and sustainability of results. For example, at the programme level, we commonly develop inter-sector partnerships to pool expertise and co-design solutions for complex landscape challenges. We expect the breadth of partnership to increase in the coming decade. For instance, to stimulate public-private partnerships, or to link up with knowledge institutions.

Sharing our knowledge and experience

The experience and lessons we have gained in wetland landscape management and recovery tends to be dispersed among projects, staff and offices. We plan to bring together and publish our track record and knowledge, including methods, key concepts, decision support tools, innovative finance mechanisms and publications. We will place these in the context of wider knowledge and experience, with special focus on alignment and crossfertilisation with the Commonland/ Landscape Finance Lab '4-returns' methodology for landscape restoration.

We will identify the best way to communicate and make this knowledge accessible (e.g. as policy briefs, decision support systems, online mapping analyses, or scenario analyses) so as to assist and catalyse the planning, conservation, restoration and sustainable management of wetland resources. We will assess the remaining knowledge gaps and, for example, scope out the feasibility and application of a "Global Wetland Watch" online platform.



Field visit in the Ndiael, Senegal

Our approach to programme development -'Big Ideas'

Our work is driven by a long-term vision for wetlands, and for a range of specific wetland landscapes or regions. We design projects and programmes with upscaling of action towards this vision. As it is rare that finance for achieving such a vision will be secured up-front, we adopt a building-block approach, starting with a smaller investments and evolve a financing model that delivers progressively larger results as more parties get involved.

We define Big Ideas ('umbrella' programmes) that articulate a specific vision and set out action to inspire, motivate and drive forward

action at scale towards this goal, working closely with partners. This is the essence of our theory of change in action. Some of our Big Ideas relate to particular wetland landscapes or regions. Others -- for example concerning flyways or peatlands -- may involve more than one region and connect inland and coastal wetland landscapes.

Big Ideas is an established way of working within the organisation that we will use in implementing this strategy. Big Ideas prioritised by the network receive a majority of our efforts in communications, fundraising, partnership and programme development.

Big idea development

1. Together with stakeholders we articulate a vision that builds on successful pilots and a track record that demonstrates the benefits of new approaches.

2. We engage with partners to generate programmes that represent 'building blocks' over time towards the vision. By encouraging local and national institutions to play leadership roles in the design and implementation of our programmes, we build political buy-in and gain momentum for our work.

3. We invite donor partners to support different elements, and to develop projects in a coordinated way, so they add value to others. Through identifying "bankable projects" and connecting to leading companies, business platforms and finance institutions, we open-up opportunities to develop large-scale finance.

4. Ultimately, the intention is that these Big Ideas influence the policies, investment and practices of public and private sectors, upscaling and under-pinning our impact over the long-term.



Strengthening our organisation

Wetlands International has a long history and strong reputation as a knowledge-rich organisation which acts as a trusted advisor of governments and companies and an enabler of community action, that enable wetlands to be conserved and restored, alongside benefitting local livelihoods.

Our aim is to build on our track record and capitalise on our existing programme portfolios in wetland landscapes. These programmes provide us with a sound platform in terms of political support, a substantive knowledge base, and extensive networks of partners.

Over the last ten years, Wetlands International has grown significantly in terms of its turnover, reach and impact. We have started to work as a global network organisation and expanded our capability to develop and implement large scale, multi-region programmes. We have connected science, policies and practices to enable innovations in wetland management, steadily developed our partnerships, diversified our donor base and increased our capacity for communications and advocacy. We now have an impressive portfolio of such programmes and have identified many prospects for upscaling and multiplying these.

A shift for increased speed and scale

We have a clear ambition to transform landscapes and sectors for connected global impact for Healthy Wetlands, Resilient Communities and Reduced Climate Risks

In order to achieve our ambition, we need to transform the organisation. Our vision is a substantially stronger and larger network organisation, publicly known and able to raise and spend funding of the order of tens of millions. This change is needed to increase our leveraging ability and consequently the impact we can achieve in wetland landscapes.

In the next five years we envisage changes to our 'business model' shifting away from a largely project-driven organisation. Working this way in the past has enabled us to create meaningful impact for wetlands, and increase the scope of our work geographically and thematically, but more flexibility is required to move faster to mobilise and upscale our impact. We will work together on this as a network, knowing that individual offices will take different time periods to adjust their operations.

Influencing and communicating

To increase our impact, our main priorities are increasing our visibility and influence, and alongside that, strengthening our fundraising capacity.

A sharper focus on communications and advocacy as a delivery mechanism is needed to realise our Big Ideas, strategic partnerships and projects. We will be more visible through bringing our stories, knowledge, experience and programme results to the fore. This will enable us to connect our knowledge and experience better with that of our strategic partners and use this in our joint efforts to upscale wetland solutions. We will use our knowledge products to engage and influence key decision makers.

We will work by leveraging the dynamics between media, public attitudes and public policy through engaging key influencers, ambassadors and target groups such as youth, as well as translating our knowledge into innovative and creative leadership. This will serve as a basis for changing the behaviour of governments and business, needed to address climate change and the catastrophic loss of biodiversity, while also underpinning our fundraising for Big Ideas.





This figure shows the development of network income over recent years. Up to 2016 network office (other than the global office) raised about 25% of Wetlands International's total income. By 2019 this had risen to about 40% and we plan that this percentage will rise to more than 50% in the coming 5 years as we invest in fundraising in other regions."

Financing our ambition

We aim to double our rate of income growth to €25 million as a first step. Past experience shows that if successful this would enable us, through our programmes, to leverage other finance through alliances and public private investments of five to ten times this amount. We will also step up efforts to acquire core funding that supports the functioning and development of the Network.

Funding from OECD governments, foundations and companies will remain a core focus for fundraising. In parallel, we aim to develop additional opportunities for funding in other countries vital for wetlands such as India, Indonesia or Brazil.



Responding to these opportunities requires stronger cooperation between our offices, and the development of more strategic alliances with partners. We plan to achieve this through professionalising our fundraising approach and staff to ensure we are well connected in our work with partners and donors in different regions. A strengthened team of fundraisers and communications staff, will work closely with office directors, programme leaders and our technical team, who are highly skilled and closely engaged in wetland conservation and restoration, alongside partners and stakeholders.

Building the right capacities

To realise the upscaling we have set out here, we will develop our people across areas including conceptualising Big Ideas and project design, partnering and influencing, innovation and resource development to complement our core competences in wetland science and management. This will be realised through mentoring, peer-to-peer learning, interactive workshops and conventional training programmes.

By combining our knowledge and experience with that of our partners, we will establish a systematised approach to design, finance and implement landscape recovery programmes, in which the wetland aspects are integrated. Through capacity development and training, we will embed this standardised landscape recovery methodology in the organisation. Through our partnerships, we will encourage others to follow suit.

Attracting and retaining the best people is fundamental to our ambitions. We aim to be an employer of choice for environment and development professionals, offering the chance to make a difference locally, nationally and globally. We aim to be an attractive place to work, with competitive conditions and protection of employee rights.

A stronger network

Wetlands International is a global network working in over 100 countries. Our offices are set up to accelerate safeguarding and restoring wetlands in the regions in which they operate by taking action on the ground, and influencing and mobilising stakeholders and decision makers. We will strengthen our offices' influence, capacities and inter-relationships to realise our strategy, and the Global Office, based in the Netherlands, will develop further as a service centre for the network ensuring we work together effectively for impact. Our members – national governments and NGOs – support our goals and help provide the mandate we need. The political support and core funding that government and NGO members provide is vital to delivering our ambitions. We will expand and rejuvenate our membership and increase and diversify our supporter base, including through our legal entities in Europe, Africa and Asia.

Our network of associated wetland experts act as wetland champions and bring knowledge and experience to the organisation. We work with the IUCN and its specialist groups on specific wetlands species. We will continue to be active members of these and other knowledge networks on relevant topics, including community resilience, disaster risk reduction, nature-based solutions, and water, peace and security.

Efficient operations

Wetlands International maintains offices in all regions of the world, operating and collaborating with a common strategic purpose to global standards, while maintaining decentralised decision-making and local relevance. Our 'global board' of office heads, along with the network management team that reports to it, take strategic decisions for the entire organisation. They will continue to improve the network-wide policies, tools and procedures to ensure efficient and collaborative working between offices.

Our principles and policies are operationalised in each office in keeping with national regulations and culture. But no office works alone. Collaboration through online working across teams will be at the heart of our project delivery, sharing knowledge and ideas, building capacity and fostering the personal relationships key to our success.





Colophon

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