Wetlands – areas of land that meet water – are among the most productive and valuable ecosystems. They are fundamentally important for supporting sustainable development and combatting climate change. Between now and the end of the year, the world’s governments will meet to discuss the global agendas for both sustainable development and climate change. They would do well to remember the contribution that these critical ecosystems can make.

Wetlands can help solve our climate problem

Wetlands have some of the highest carbon sequestration rates because wetland plants, like mangrove trees, are fast growing and productive. For example, coastal marshes and mangroves capture an average between 6 and 8 tonnes of CO2 equivalent per hectare per year, which is about two to four times greater than global rates observed in mature tropical forests.

Wetlands also have the ability to store greater quantities of carbon because they store dead wood and plant matter in the soil and the water logged conditions prevents the material from decomposing and releasing CO2. Peatlands, for example, cover 3% of the global land area, but contain approximately 30% of all the carbon on land, equivalent to 75% of all atmospheric carbon and twice the carbon stock in the global forest biomass.

The need to expand the role of naturally occurring carbon sinks has gained attention in recent years. The most popular and well known approach has been the expansion of forestry related activities via programs such as UN REDD+. Given the increasing attention of governments and businesses on the need to capture and store carbon while economies remain powered primarily by fossil fuels, means more needs to be done.

Wetlands improve water security

Wetlands are critical for the functioning of the global (and local) water cycle. Headwaters of rivers provide the first filtration after water falls from the sky, floodplains are critically important in providing flooding control and regulating flow of water as it moves downstream, and mangroves provide important erosion control around estuaries when it reaches the sea. There are of course,
many variations within the broad category of ‘wetlands’ – marshes, fens, peatlands, bogs, ox-bow lakes, and other types, all play an important role in the complex process of the hydrological cycle.

Robust and healthy wetlands help communities be resilient to changes that could arise from climate change. At the Ramsar Convention’s 12th Conference of Parties, which took place in June, a resolution developed by the Philippines that encourages member countries to incorporate wetland and water management in their national disaster risk reduction and climate change adaptation strategies was unanimously approved.

Wetlands are an important element of the post-2015 development agenda

In the context of the United Nation’s proposed Sustainable Development Goals (SDGs), which will be adopted later this months, the need to protect and restore wetlands are specifically mentioned in two of the proposed targets, one on water sustainability (target 6.6) and the other on sustainable use of ecosystems (15.1). Wetlands and the services they provide are also directly relevant to another fifteen of the proposed targets, including poverty eradication, food security, and wastewater treatment.

So, when you take a step back and think about it - wetlands really exist at the nexus of energy, food and water, at the intersection of climate and development and the source of sustainable development.

Wetlands restoration is affordable

Restoring wetlands therefore improves both the water and carbon cycles. It is a high impact opportunity for both public and private sector, and some encouraging steps to take advantage of this area of opportunity are emerging.

The Livelihoods Fund is an investment fund created by several large multinationals in partnership with the Ramsar Convention and IUCN to offset their carbon emissions that is providing leadership in this area.

The fund has already invested over $50 million in wetland restoration, re-forestation, and rural energy projects that also benefit the livelihoods of people. The projects are large enough to get excellent returns on investment for carbon capture; their Senegal project has already replanted over 10,000 hectares of coastal mangrove wetlands. Their seven projects are expected to generate carbon credits equivalent to 8 million tons of CO2 over the next 20 years.

The potential for wetlands restoration is attracting attention from governments and financiers.
Wetland restoration is also starting to receive more attention at the national and local levels. For example, China recently submitted their wetlands strategy to the Ramsar Convention, which calls for investments of $7.14 billion to restore 0.98 million hectares of wetlands by 2020.

The Norwegian Aid Agency (NORAD) also worked via the Ramsar Convention to pilot investments in a number of wetlands restoration projects in Asia and Africa that provide water services for people living in cities.

There are also, of course, a number of possible sources of finance to support a major effort to restore wetlands. The World Bank’s Global Environment Facility, for example, which is by far the largest source of financing for wetlands-related work, has directly invested $2 billion and leveraged a further $11 billion in wetlands related projects and activities.

There is also provision within some sources of climate finance for wetlands-related work, for example where wetlands are also forested, such as is tropical peatland forests, which are covered under the rules for REDD+ financing. The new Green Climate Fund has already received pledges of over $10 billion, and should certainly consider wetlands related opportunities.

In addition, as the private sector (and fossil fuel companies in particular) are increasingly under pressure because of the planet’s ‘carbon budget’ that they are pushing up against, wetlands restoration as a feasible and more popular alternative to engineered CCS technologies is likely to attract more attention.

Restoration of wetlands can scale up ‘Challenges’ that create a platform for commitments, finance and action have been successful in building momentum for restoration forested lands; the Bonn Challenge has garnered commitments from more than 20 countries to restore more than 60 million hectares of forest land, more than half of their goal of 150 million hectares by 2020.

The idea of establishing a parallel “Geongju Challenge” to encourage countries to make their own wetlands restoration commitments was put forwards during a high level ministerial meeting among Ministers from over twenty countries at the World Water Forum’s meeting in April 2015.

The best way to possibly move ahead with establishing mechanisms for scaling up the restoration of wetlands is now being considered within the Ramsar Convention by a Working Group that has been set up to specifically look at the issue, and the opportunity.
Looking ahead

2015 is often described as a momentous year for Sustainable Development. The COP 21 meetings of the United Nations Framework Convention on Climate Change that are taking place in Paris in December will come as the final and most pivotal moment in the year.

The contribution that nationally determined contributions to solving climate change will make will only become clear during, and after, the meeting. Current estimates are that even after the nationally determined commitments that governments have made by the end of the year, at least 10 GT of carbon dioxide emissions will still need to be removed from the atmosphere. The likely impacts of climate change on the water cycle (i.e. floods and droughts) under this highly likely scenario are still enormous.

As societies scramble to find ways to avoid overshooting critical environmental thresholds during the coming months and years, global attention on ‘solutions’ will undoubtedly grow. Wetlands will emerge as one of the best available technologies to invest in.

Authors: Chris Perceval, Head of Strategy and Partnerships at the Ramsar Convention, and Rob Cadmus, Manager, Investing in Natural Infrastructure at the Ramsar Convention