**Restoring wetlands**

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Drain the swamp! It is an old cry. Swamps are badlands where malaria breeds, mists settle, tracks disappear, criminals lurk and bad things happen. Bog or mire, morass or swamp, even their names give wetlands a bad reputation. Unlike scary jungles, which have been successfully rebranded as magical and biodiverse rainforests, wetlands are for many people still stuck in a quagmire of disregard.

That includes many policymakers, and even some environmentalists. Ahead of the climate conference in Glasgow, Scotland, many delegates have championed the cause of conserving and restoring forests as a way to soak up carbon dioxide and fight climate change. Recently, $1bn was pledged to the cause by governments and private companies. This is indeed absolutely necessary. But where is the same commitment – and the same finance – for wetlands?

If the gap is not filled, a great chance will have been missed. Because if you thought most of the carbon stored in natural ecosystems was in forests, you would be wrong. It is in wetlands. If you thought the potential for harnessing nature to fight climate change was all about the fate of forests, you would also be wrong. The fate of wetlands is at least as important.

So delegates in Glasgow will be right to kickstart a global programme to restore forests. But achieving their goal of limiting warming to 1.5 degrees C will require complementary action to protect and restore the world’s overlooked and undervalued wetlands.

Wetlands – which include river floodplains and deltas, lakes and salt marshes, mangroves and peatlands – are disappearing three times faster than natural forests; drained or dyked, filled in or paved over, converted to rice paddies or fish ponds.

This loss of accumulated waterlogged organic matter is releasing huge volumes of greenhouse gases into the air. A typical hectare of coastal mangrove swamp holds four times more carbon than tropical forests. Peatlands, often thousands of years in the making, store twice more carbon than all vegetation types on the planet’s surface put together. Just one, the Cuvette Centrale in the Congo basin, contains more carbon than all the trees in the basin’s rainforests.

But draining them oxidizes the carbon and turns it into carbon dioxide. Around five percent of annual global greenhouse gas emissions come from draining peatlands. According to researchers of nature-based solutions to climate change, protecting the world’s remaining peatlands could shave a third of a degree Celsius off global warming later this century.

But wetlands are not just carbon stores. They are also water stores – vital for protecting us from extreme weather events already happening. By regulating water flows, they keep rivers full in droughts and reduce surges downstream when it is wet. Drain them, or cut them off from their rivers, and the result is empty river beds and raging floods.

The deluges of water that ripped through parts of western Germany earlier this year may have been triggered by climate change, but they were certainly made worse because many of the wetlands that once captured and held back heavy rains have been drained. Rainfall washed into rivers much faster than in the past, bursting banks and flooding hundreds of towns downstream. Many of the 200-plus who died would have been saved if wetlands had not been lost.

Wetlands perform many other roles. They nurture fisheries and freshwater biodiversity; they water crops and seep downwards to maintain underground water reserves. They protect our shores from high tides, storms and even tsunamis.

They also act as firebreaks and help prevent the spread of wildfires. Last year droughts and fires devastated drained wetlands in Bolivia, Paraguay and the Pantanal in Brazil. Much of the Amazon is wetland as well as rainforest, and as the wet places dry out, forest fires are worsening there too.

The science on the importance of wetlands is in. And the technical know-how of restoration is well demonstrated. Affordable and scalable nature-based solutions are ready to be deployed, with local communities and Indigenous people at the heart of the action.

Excerpted: ‘Restoring wetlands can help combat climate change’