

Rising energy, food prices major threats to wetlands as farmers eye new areas for crops

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Critical food shortages and growing demand for bio-fuels and hydro-electricity due to high fossil fuel prices rank among the greatest threats today to the preservation of precious wetlands worldwide as farmers and developers look for new areas for agriculture, energy crop plantations and hydro dams.

However, resisting pressures to convert wetlands is vital to avoid destroying ecosystems that provide a suite of services essential to humanity, including safe, steady local water supplies, preserving biodiversity and the large-scale capture and storage of climate warming greenhouse gases, according 700 leading world experts concluding a week-long meeting in Cuiaba, Brazil.

The experts issued the Cuiaba Declaration (appended) July 25, the final day of the 8th INTECOL International Wetlands Conference, convened on the northern edge of the world's largest tropical wetland, the Pantanal.

Wetlands include marshes, tidal marshes, peat bogs, swamps, river deltas, mangroves, tundra, lagoons and river floodplains. Among other services, they trap and store carbon in submerged organic matter, sustain biodiversity, and produce renewable natural resources, such as fish, natural pasture, timber, and wildlife. The statement stresses the rising value of wetlands in an increasingly urbanized world, especially such services as water storage and purification, and recreation.

Wetlands are under assault, however, due to agriculture, grazing,

aquaculture, dams, waste disposal, invasive species and other problems caused by human activity.

"It is time to recognize the incalculable value of wetlands to all species – ours included," says conference co-chair Paulo Teixeira, Co-ordinator of the Cuiaba-based Pantanal Regional Environmental Programme, a joint effort of the United Nations University and Brazil's Federal University of Mato Grasso (UFMT), which hosted the event.

"If we don't plan and invest properly now, the cost to recreate artificially the services wetlands provide will dwarf the cost of preserving and protecting them in the first place."

In their statement, conference delegates from 28 nations lament "inadequate national development policies, lack of implementation of existing laws, and the lack of long-term land use planning that negatively affect wetlands on public and private property."

They also call for help establishing such basic information tools as a mapped inventory of wetlands based on universally-accepted definitions, which as yet do not exist. They call on the 158 nations that are party to the Ramsar Convention to help remedy these and other yawning information gaps.

They warn against creating energy and food croplands at the expense of natural vegetation and of carelessly allowing agriculture to encroach on wetlands, which causes damage through sediment, fertilizer and pesticide pollution.

Development in and around wetlands must be preceded by "sound cost-benefit analyses, including environmental and social parameters," the statement says, adding that "mitigation of many negative side-effects is

not possible" once the damage is done.

A recent study shows a large wetland in arid northern Nigeria yielded an economic benefit in fish, firewood, cattle grazing lands and natural crop irrigation 30 times greater than the yield of water being diverted from the wetland into a costly irrigation project.

And, at US\$15 000 per hectare per year, the economic value of flood mitigation and other services provided by wetlands is greater than any other ecosystem – seven times that of the next most valuable, tropical rainforests.

The statement notes accelerating rates of biodiversity loss, saying "freshwater biodiversity is declining faster than terrestrial or marine biodiversity, and wetland species are especially prone to decline and extinction."

The rich biodiversity of wetlands mitigates the spread of disease from animal to human. The statement says that with warmer world temperatures water-borne diseases will expand into new areas.

Of particular concern as well: the expected damage to wetlands due to climate change – and the exacerbation of climate change if wetlands continue to deteriorate and release potentially massive stores of greenhouse gases, both carbon and more potent methane.

In some parts of the world, the loss of wetlands could also displace huge populations that rely on wetlands for subsistence. According to South African research, an estimated 1 to 2 million rural poor in that country alone could be displaced as wetlands dry up, placing further strain on urban centres to create accommodation and employment.

"A modern wetland policy based on sound scientific knowledge and able

to reconcile economic development with environmental protection and social welfare is required in all countries," the statement says.

"Some countries have high standards for wetland management, restoration, and protection; however, many others are far behind. Joint efforts across political boundaries are needed to combine all our efforts to stop and reverse the loss and degradation of wetlands. Sound policies and activities are needed now."

The Ramsar Convention, which regulates global wetland management and protection, requires nation signatories to establish and implement a specific wetland policy, to prepare a wetland inventory, and to maintain the ecological character of all wetlands.

"We call attention to the fact that many signatories have not yet fulfilled these requirements and ask for immediate action from the respective governments," the statement says. "We encourage non-member states to join the convention and strengthen the global effort needed to sustainably manage wetlands."

Source: United Nations University

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