



Asian Wetland Inventory
<http://www.wetlands.org/awi/>

Asian Wetland Inventory

A Tool for addressing Climate Change Issues

Climate Change and Wetlands

Wetlands are critically important ecosystems that provide local and globally significant social, economic and ecological benefits. In addition to all their functions and benefits, wetlands play at least two critical but contrasting roles in mitigating the effects of climate change: the management of greenhouse gases (especially carbon dioxide) and physically buffering climate change impacts.

Many wetlands act as significant carbon storehouses (sinks). Therefore, the destruction of wetlands will release carbon dioxide, a greenhouse gas. Using the broad definition of wetlands adopted by the Convention on Wetlands (Ramsar, Iran, 1971), this may amount to as much as 40% of global terrestrial carbon. Peatlands and forested wetlands are particularly important as carbon sinks. Although covering only 3% of the world's land area, peatlands are estimated to store over 25% of the soil carbon pool.

Wetlands also play a further role as the frontline defenders of coastal and inland systems from the effects of climate change: increasing frequency of storms, changing rainfall patterns, rising sea level and sea surface temperatures.

Despite the important role that wetlands play in climate change mitigation, actual areas of wetlands in Asia, types of wetlands and their distribution are still poorly known and very much based on estimates. Reliable knowledge is the basic resource on which all decisions concerning the conservation, management and wise use of wetlands should be made. However, many gaps still exist in inventory information and no standardized approach is adopted for inventory in Asia.

Drainage, conversion to other land uses and degradation of wetlands will release large quantities of carbon dioxide into the atmosphere (which accounts to at least 60% for the warming effect) as well as other greenhouse gases contributing to global warming.



Forest fires

Wetlands International



Coastal erosion

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Conversion and degradation of wetlands

Wetlands International



Floods caused by heavy rain

WWF





The Asian Wetland Inventory

A broadly supported protocol for wetland inventory has been developed through the Asian Wetland Inventory (AWI). This will serve as a platform for assessment and monitoring of wetland resources.

The AWI initiative is based on a partnership approach and aims to establish and strengthen national inventory programmes and databases in all participating nations.

The AWI is able to provide information critical for addressing wetland issues including climate change. The locations and distribution of these important carbon sinks will be mapped using a standardised approach and core information required for their management will be collected.

The AWI would help assess the extent of likely impacts of climate change on wetland ecosystems and how wetland ecosystems can mitigate the effect of climate change, and help evaluate the role of different wetland types in global cycles. The AWI would also be able to provide the data needed for climate change modelling and decision-making about the conservation and wise use of wetlands in the region.

In addition to the Ramsar Convention on Wetlands, the AWI is also seen as an effective tool for other conventions such as the UN Framework Convention on Climate Change (UNFCCC) and the UN Convention to Combat Desertification (UNCCD).

Many wetlands are carbon sinks. Lack of reliable information on wetlands leads to failure in management and eventual degradation of these important ecosystems.

POSITIVE ACTION

The Asian Wetland Inventory

Accurate and reliable information on wetlands

Improved management of wetland ecosystems

Well managed wetlands and functional carbon sinks

Reduced greenhouse gases in the atmosphere

Current and potential effect of climate change reduced

CURRENT SITUATION

Lack of reliable and accurate information on wetlands

Management failure

Degradation of wetlands

Increase in release of greenhouse gases into the atmosphere



Wetlands play an important role in mitigating the effect of climate change
Wetlands International