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Agriculture drains global water resources - [Bookmark in Connotea](#)

August 22, 2011

The depletion of water resources including ground water and wetlands for agriculture will leave many food producing areas, such as northern China, and India's Punjab increasingly vulnerable to drought and crop failures in future, warns a [report](#) out today. The recent droughts in Kenya and Somalia have played a key role in the crop failures that have left thousands starving.



Currently 1.6 billion people live in areas of water scarcity and this could quickly grow to 2 billion if business continues as usual, warns the joint report from the [International Water Management Institute](#), based in Colombo, Sri Lanka, and the United Nations Environment Programme. (See [here](#) and [here](#) for *Nature's* coverage of the global water crisis.)

"Many of world's bread baskets have already reached their water limits," David Molden, deputy director general for research at [IWMI](#) told *Nature*.

The report calls for a "radical transformation" in farming and water management practices so that food production can increase sufficiently to feed the growing global population without irreversibly damaging ecosystems.

Farming needs to be seen as part of an agroecosystem that is "more than just food", says Molden. Rather than endless monoculture landscapes, some natural habitat should be preserved in agricultural land, which would offer better protection against floods and improved soil fertility, he says.

Poor cooperation between those pursuing agricultural goals and those wishing to protect the environment is a "major impediment" to adopting a more sustainable food production system, the report warns.

In a separate [report](#) also launched today, the [IWMI](#) says efforts to protect and conserve wetlands must not exclude agriculture. "Blanket prohibitions against cultivation do not always reduce ecosystem destruction and can make things worse," says Matthew McCartney, co-author of the report.

Policies aimed at wetland protection often take a conservationist approach that sees agriculture as a threat and disregards its contribution to livelihoods, the report says

For example, the grassy dambo wetlands of sub-Saharan Africa provide vital farmland to poor rural farmers. Farming was banned in these areas in the 1920s and 1950s and this led to deforestation in the upland areas to provide fields for cultivation and a shift from farming to cattle grazing on the wetlands. Rather than protecting the dambos, the policy in fact worsened their erosion, the report says.

"Sustainable agricultural practices should be permitted and supported in certain wetland areas," it says.

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This report reflects the widespread human support for agriculture and for unrestrained Malthusian population growth. Without massive desalinization of seawater, use of freshwater for agriculture always takes it away from another use, whether an active wild ecosystem or aquifer storage. In the dambo example, the *policy* did not worsen erosion. *People* did, through deforestation. The policy just missed the Law of Unintended Consequences. It didn't troubleshoot the effect on the poor farmers. It's possible we should be measuring "water sequestration" in living biomass resulting from freshwater use in agriculture resulting in higher populations of crops - and people.

Posted by: Jean SmilingCoyote | [August 24, 2011 05:38 PM](#)

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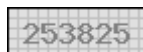
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