Institute of Hazard, Risk and Resilience Blog

Understanding hazard and risk in society by challenging convention

IHRR WEBSITE

http://www.dur.ac.uk/ihrr/

IHRR MAGAZINE (EZINE)

Autumn 2010

TOP POSTS

Countries at risk of paying the greatest economic costs for disasters

Climate change causes species to move north and to higher elevations

How many people die from landslides?

Groundwater arsenic poisoning in Bangladesh: An interview with Dr Manzurul Hassan

Christchurch earthquake secondary hazards

New maps of Christchurch earthquake

UN report on 'risky cities' and climate change

EMAIL SUBSCRIPTION

Enter your email address to subscribe to this blog and receive notifications of new posts by email.

Join 29 other followers

Sign me up!

Search

IHRR ON TWITTER

Countries at risk of paying the greatest economic costs for

Healthy ecosystems can boost community resilience

August 26, 2011 in Climate Change, Developing World, Resilience | Tags: agriculture, climate change, development, ecology, food, government, research, resilience, water | by IHRR

A new report from the United Nations Environmental Field Programme (UNEP) was launched recently during 'World Water Week' in Stockholm, Sweden – 'An Ecosystems Approach to Water and Food Security'. It was 'written by over 50 contributors from 21 organizations and uses case studies from China, Guatemala, Jordan and other communities'.

It not only highlights how to conserve food and water resources and make them more widely available, but explains in detail how 'ecosystem services' can play a crucial role in resilience to climate change, a growing world population and increasing scarcity of food and water resources. The global population is expected to reach over 9 billion by 2050, according to the UN Population Division. Demand for food and water resources, especially in developing countries, will only increase in response. If the world is to become more resilient to these challenges, creating an equilibrium between agricultural food production, water supply and local ecosystems is not only needed, but imperative for present and future generations.

Here are some examples of ecosystem services given in the report:

FIGURE 1: Ecosystem services can be divided into four main categories: provisioning, cultural, regulatory and supporting services (MA 2005). The management of agroecosystems has tended to focus on provisioning services, often to the detriment of other types of services. Ultimately, if supporting services (which operate on a much longer time scale) and regulatory services are degraded, food security will be reduced.

Connecting agriculture with ecosystem services can help reduce poverty due to

disasters http://t.co/k0XS3a1
12 hours ago

Politics Overtaking Science in Global Warming Debate in the US from VOA well worth listening to, but also unfortunate: http://t.co/0q0ftjZ
15 hours ago

Smarter Energy - Will it Cost the Earth? event at Durham 6 Sept with #BillBryson and many others. Book your place at http://t.co/yykmW36
2 days ago

Japan's tsunami detected by radar Useful for understanding how to detect secondary hazards from earthquakes in advance. http://t.co/mZ4UstT
2 days ago

Healthy ecosystems can boost community resilience http://t.co/Sb5t0y5 6 days ago

Follow @_IHRR

CATEGORIES

Select Category

TAGS

agriculture aid antarctica arsenic ash cloud banking crisis brownfield china christchurch earthquake climate change COP16 crisis debris flow earthquake ecology financial risk flood government hazard health IHRR kosi river landslide nanotechnology pakistan politics pollution public public health research resilience risk science secondary hazards security seminar sri lanka surveillance technology terrorism tipping point tipping points tsunami volcano water

BLOGROLL

Allochthonous Highly
Centre for Medical Humanities
Dave Petley's Landslide Blog

rising food prices and also sustain the global water supply. According to the report:

The recent rise in world food prices, which has driven over 110 million more people into poverty, is not an isolated event. Over the next several decades, food prices are predicted to rise by another 30-50% due to the inability of food production to keep up with growing demand (Nellemann et al. 2009).

Currently, 1.6 billion people live in areas of physical water scarcity and this could easily grow to 2 billion soon if we stay on the present course. With the same practices, increased urbanization and changing dietary patterns, the amount of water required for agriculture in terms of evapotranspiration would increase from 7,130 km3 today to 70-90% more (which is between 12,050 and 13,500 km3) to feed 9 billion people by 2050 (CA 2007).

This diagram from the report shows how managing water for agroecosystems can lead to environmental sustainability and resilience:

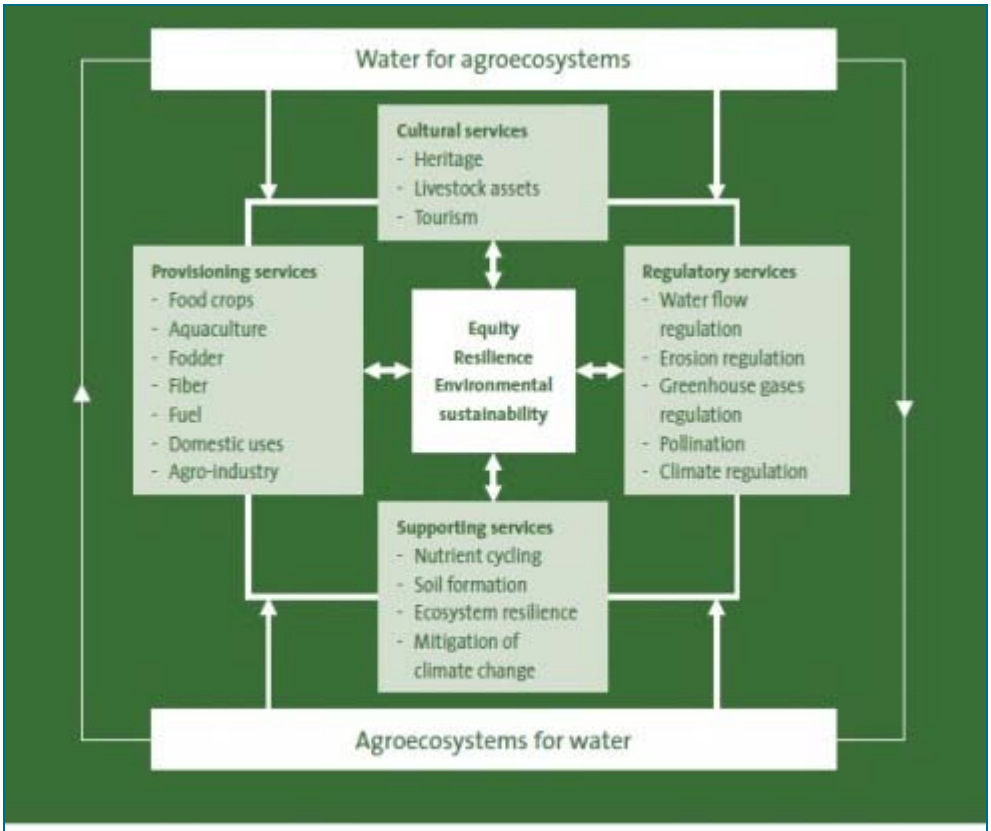

FIGURE 4: Water management for agroecosystems will enhance more ecosystem services and lead to environmental sustainability, equity and resilience to shocks.

This report contains a great deal about how to manage agriculture and ecosystems to benefit people throughout the world and has much to say about creating more resilient communities through ecological practice.

The full report is available from the International Water Management Institute: http://www.iwmi.cgiar.org/Topics/Ecosystems/index.aspx