WETLANDS IN EAST AFRICA

Reconciling future food production with environment protection

In many East African areas, food production is stagnating or even declining. Demographic growth, land degradation, and climate variability are the main culprits. Since wetlands provide water during the whole year and are a generally high quality resource base they could serve as potential production hot-spots. Although they cover 20 million hectares in the four East African target countries Kenya, Rwanda, Tanzania and Uganda, only a small share is currently used. Wetlands offer a good expansion potential for agriculture and could become the breadbasket of the region. An increased food production, however, will only be achieved sustainably if intensified land use can be reconciled with the conservation of biodiversity and the maintenance of ecosystem services. A multidisciplinary consortium from Bonn-Cologne-Jülich and East African partners assesses the wetlands’ contribution to food security and the sustainability of current uses along climatic and social gradients (http://www.wetlands-africa.de).

Human health is one topic of special consideration within the project, referred to in Work package D2 on Human health impact. Each wetland is a part of the existing landscape, and undergoes natural or man-induced changes that impact both physical and mental health. Physical health issues related to wetlands are manifold and comprise physical hazards, floods, nutrition and food availability, as well as all kinds of water-related diseases. Both surface water and groundwater in wetlands are used for drinking, food production, personal hygiene, income generation and other household uses. In a wetland environment, therefore, the chemical and microbiological water quality and the sanitary situation have a major impact on human health. Wetland changes will also alter the human-environment relationship and the wetlands impact on health and therefore their influence on the communities’ wellbeing. Changes of a positively-sensed place can result in psycho-social stress, which can then result in pathological phenomena such as depression and solastalgia. The loss of ecosystem health is connected to the loss of physical and mental health of human beings. By initiating a discussion about wetlands-related wellbeing, a working relationship reflecting the complex web of lifestyles, meanings, and social relations endemic to a place is to be built.

In order to deliver an understanding about public health aspects associated with wetland ecosystems, the work package D2 addresses the following activities:

- Development of a tool for health impact assessment (HIA)
- Assessment of physical health aspects
- Assessment of mental and social health aspects
- Wetland malaria risk assessment
- Guidance for health-sensitive wetland management

The results will be used to establish links to studies of adaptation and coping with global change in health-related wetland management, and as background information for the development of awareness-raising campaigns. Results obtained from holistic HIAs in different wetland settings can be used to develop guidance materials that define wetland-specific diseases and link them with existing policies and good practices in the public health sector. Thus they contribute directly to the Millennium Development Goals. Health-adapted wetland management will improve human health, avoid the emergence or re-emergence of disease, and contribute to healthy wetlands.

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