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“Development on the margin”

The Lake Naivasha Sustainability Project: An Ecosystem Health Approach

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Abstract

The Lake Naivasha Sustainability Project is an interdisciplinary and action oriented research project whose aim is to have all stakeholders within the basin participate in addressing the ecosystem health challenges they are facing as consumers and guardians of resources within the watershed. The project adopts a transdisciplinary approach to create a model of ecosystem health that will lead to the continual improvement of the Lake Naivasha basin ecosystem for human health and well-being. In the creation of this model, the project encompasses objectives in the strategic areas of governance, ecosystem structure and function, eco-toxicology, and social economic and medical aspects of community health. The research strategy lies in an interdisciplinary approach wherein the human, environment and human health are evaluated in an ecosystems approach. The specific objectives are: (1) Improving the representation of stakeholders and their decisions in the sustainable management of water resources and understanding the full range of options between the end points of catastrophic human-induced system degradation and ecosystem health; (2) A water balance to assess water supplies and demands; (3) An understanding of the sources, amounts and pathways of environmental pollutants and contaminants for risk mitigation (including determining physicochemical drivers of the ecological status of the lake like the source, production and fate of pollutants, contaminants, harmful bacteria and algal blooms, and determining exposure risks to residents); and (4) An assessment of the environmental pollutant and contaminant exposure risk to residents and workers, particularly vulnerable groups such as women and children, related to socioeconomic activities within the Lake Naivasha basin (including determining socioeconomic characteristics of the basin communities, assessing the general health status of residents and their risk of exposure to contaminants and water-borne diseases). Thus the project has been designed to engage concerns of key stakeholders into the research and for the research findings to be available to a wide spectrum of interested stakeholders. The Lake Naivasha Ecosystem Health Research Team will present the research outline and criteria of success for this incredibly valuable lake basin and catchment community.

Keywords: Ecosystem health, human health, lake Naivasha, sustainability