BEST: International Journal of Humanities, Arts, Medicine and Sciences (BEST: IJHAMS) ISSN(E): 2348-0521 Vol. 2, Issue 3, Mar 2014, 1-14 © BEST Journals



## IMPACTS OF PESTICIDES ON HUMAN HEALTH AND ENVIRONMENT IN THE RIVER NYANDO CATCHMENT, KENYA

## DEBORAH ATIENO ABONG'O<sup>1</sup>, SHEM OYOO WANDIGA<sup>2</sup>, ISAAC OGANGU JUMBA<sup>3</sup> VINCENT ODONGO MADADI<sup>4</sup> & HENRIK KYLIN<sup>5</sup>

1,2,3,4 Department of Chemistry, School of Physical Science, College of Biological and Physical Sciences University of Nairobi, Nairobi, Kenya

<sup>5</sup>Department of Water and Environmental Studies, Linköping University, Linköping, Sweden

## **ABSTRACT**

River relies on rain fed agriculture. Important crops grown include cereals, cash crops fruits and vegetables. Farming is one of the contributors' of pollution to Lake Victoria. Organophosphates and other banned organochlorine pesticides such as lindane, aldrin and dieldrin were used by farmers. The pesticides transport was by storm water run-off and air drift into the lake. Environmental risk assessment background information was collected through questionnaire and interviews of farmers to determine knowledge and safe use of pesticides. Fourteen pesticides were identified as commonly used of which four are toxic to bees and five to birds. The farmers identified declines in the number of pollinating insects, the disappearance of Red-billed Oxpecker (*Buphagus erythrorthynchus*) and wild bird's fatalities. The general knowledge among farmers about chemicals risks, safety, and chronic illnesses was low. Activities that increases environmental awareness and safety of pesticides should be initiated by the agrochemical firms and government

KEYWORDS: Environment, Farming, Lake Victoria, Pesticides

