

Authors: Bernard Keraita, George Danso and Emmanuel Obuobie

Title: Extending the “ecosan loop” to address health concerns from wastewater irrigation in urban and peri-urban areas

Abstract

Ecological sanitation (ecosan) is largely perceived to be limited to source treatment of waste and reusing it at or near generation points. However, due to inadequate sanitation infrastructure in low- income countries, the waste stream (at least the wastewater part of it) continues to pollute also water bodies downstream of cities. Urban and peri-urban farmers in search of irrigation water end up using this water as they lack choices. As much as it enhances productivity, it poses human health risks too. If we focus on a closed loop, resource recovery and health concerns only at waste generation points and nearby agricultural fields while adapting ecosan principles, we basically turn a blind eye on downstream effects on farmers as well as consumers. A multiple barrier approach for risk reduction has been proposed. The paper describes how ecosan principles can be applied at farm level and also outlines few low-cost treatment and management strategies that can be used to reduce health risks. We recommend further extension of the ecosan loop to address health concerns at farm level and up-scaling ecosan principles from localised levels to watershed level with urban areas.