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Hygienic Aspects of Sanitation and Water in the Rural Areas of the Mekong Delta, Vietnam

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Abstract

Improvements in the availability and quality of water and sanitation are essential for reducing incidences and subsequently death due to waterborne diseases. Therefore, the Millennium Development Goal No. 7 Target 10 aims at halving the population living without adequate drinking water and sanitation until 2015. The Mekong delta is home of 17.6 million people of whom about 14 million live in rural areas. According to estimations about 10 million people in these still underprivileged rural areas live without adequate sanitation and 9.3 million lack safe drinking water. During the last decades, projects by UNICEF and different NGO's as Oxfam supported the abstraction of ground water for drinking water purposes in the Mekong delta. In general, groundwater is regarded as hygienically safer than surface water but is sometimes rejected by the population because of its taste and chemical quality.

In the framework of the interdisciplinary project SANSED a study was carried out on the hygienic quality of the different drinking water sources and acceptance of sanitation facilities in rural area of the Mekong Delta, Vietnam.

The VAC model (Vuon=orchard, Ao=fish pond, Chuong=livestock farming) is an established integrated traditional Vietnamese farming system, which practices nutrient recycling. Untreated excreta from animals and humans (night soil) are used as a fertiliser in agriculture or as fodder in aquaculture. So, heavy contamination with fecal pathogens and eggs of parasites occurs in soils, vegetables and fish, but also in surface water which is the main drinking water source.

Implementing sanitation solutions that treat human and animal excreta before recycling them, such as biogas plants, will reduce contamination of the surface water and provide as surplus organic fertilisers and energy for free. Especially, in the Mekong Delta, where nutrient recycling is traditionally practised the introduction of biogas systems would enhance life quality and substantially contribute to public health. A participatory approach and complementing hygiene education of the population addressing drinking water hygiene and sanitation issues is assessed as necessary in order to achieve a sustainable long-term impact of these interventions.

Keywords: Drinking water sources, sanitation , Vietnam