

Topic 5

The Successful Eco-sanitation in a Comprehensive Project for Village Development in Malawi

Keywords: Ecological sanitation, Agriculture, Cash income

The Republic of Malawi is a landlocked country in southeast Africa separated from Tanzania and Mozambique by Lake Malawi that collects surface and ground water from the west bank. The country relies heavily on tea, sugar, coffee, and tobacco that make up more than 90% of Malawi's export revenue. However, rural communities still face famine due to poor infrastructure, hindering the economic growth of the country. Malawi rural communities need comprehensive development models capable of solving the problems of infrastructure such as safe drinking water supply, proper hygiene and sanitation, and food security. With the support of Kyoto University and University of Malawi, Nippon International Cooperation for Community Development (NICCO) implemented a comprehensive development project over 6 years costing approximately 2.0 million US\$ targeting roughly 10,000 people in three districts of Malawi and consisting of seven core programs: (A) Agriculture, (B) Grain storage, (C) Reforestation, (D) Measures for infection, (E) Human resource development, (F) Water supply and (G) Ecological sanitation (Eco-sanitation).

Of the seven core programs, eco-sanitation played a key role in the success

of the project that dramatically improved agricultural products through the introduction of sustainable nutrient recycling as well as improvements to hygienic conditions in the villages. While many ecological sanitation projects have been implemented in developing countries over the last several decades, maintenance and operation by the project implementers have always presented difficulties and NICCO faced the same problems in a project in Vietnam in 2005 resulting in eco-sanitation failure. The important lesson was how to properly use urine and humanure (feces) in agriculture to realize increased yields of agricultural products. NICCO organized many workshops for the villagers to instill proper knowledge of hygiene as well as agricultural applications of urine and humanure, and these proved highly successful in the Malawi project.

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Fig. T5-1 A urine feces diversion toilet for hygiene



Fig. T5-2 Ash disinfected dried feces for use as fertilizer. Water-diluted urine is used as a quick fertilizer.

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