Farmers’ knowledge on potential uses of rice straw: An assessment in MADA and Sekinchan, Malaysia

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Abstract

Rice straw in Malaysia is presently disposed of mostly by open burning. This results in the release of various pollutants affecting the environment, weather and local communities. Yet, there are several potential uses for rice straw which can still be explored and developed to benefit Malaysia’s rural economy. The present study involved 160 farmers in two of the largest granary areas of the Kedah’s Muda Agricultural Development Authority (MADA) and the Selangor’s Sekinchan Integrated Agricultural Development Area (IADA). An evaluation of the knowledge level among farmers and their methods relating to straw use was undertaken. As farmers are the main actors in rice production a high knowledge level about the potential economic benefit of straw use may encourage them to utilise this by-product more competitively while also adopting more ecologically sustainable agricultural practices. This research found that most farmers knew only some of the potential uses of the straw, namely as a source of animal feed, compost, vermicompost, nursery mats for seed germination, and paper making. Farmers acquired most of this information from other farmers who had realised the potentials through involvement in straw development projects. This points to the fact that more farmers could be motivated to get directly involved in the future development of straw projects presently conducted by agricultural agencies. Better information and extension services relating to commercial straw development and management could help further these economic as well as the environmental causes of straw development.

Keywords: agricultural residue, ecosystem, granary area, straw management, straw potential, sustainable agriculture