

A CONCEPTUAL FRAMEWORK OF MALAYSIAN RICE POST HARVEST LOSSES MANAGEMENT BEST PRACTICES ADOPTION

(Rangka Kerja Konsep Pelaksanaan Amalan Baik Pengurusan Kerugian Lepas Tuai Beras di Malaysia)

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ABSTRACT

Strengthening the food value chain through minimizing the losses is crucial in the post-production stage as these activities are significant in obtaining production efficiency. One of the key strategies is to adopt good agricultural practices (GAPs). The GAPs encompass combinations of principles to apply during food production processes to assure food safety, quality, and environmental sustainability. Its implementations in the food value chain involved on-farm production and post-production, including in the post-harvest losses (PHLs) activities. We develop a conceptual framework of PHLs best practices adoption based on the binary logit and probit model for Malaysia's paddy and rice industry. This framework covers PHLs sequence activities from harvesting, transporting, drying, milling, and storing. Therefore, the appropriate policies or regulations of the GAPs compliance related to PHLs activities could be improved, where the imperative is given to minimizing the losses that occur along the PHLs value chain while obtaining production efficiency. These efforts would also help the nation to empower its food security agenda and attaining sustainability rice development.

Keywords: good agricultural practices; post-harvest losses; production efficiency; binary model; food security

ABSTRAK

Penguatan rantaian nilai makanan menerusi pengurangan kerugian adalah kritikal di peringkat pengeluaran susulan aktiviti ini memainkan peranan penting untuk mencapai kecekapan pengeluaran. Salah satu strategi utama adalah dengan mengaplikasi amalan pertanian baik (APB). APB merangkumi gabungan prinsip-prinsip untuk dilaksanakan ketika proses pengeluaran makanan bagi menjamin keselamatan makanan, kualiti, dan persekitaran lestari. Pelaksanaan ini meliputi peringkat ladang dan pasca ladang, termasuk aktiviti kerugian lepas tuai (KLT). Kami bangunkan sebuah konsep rangka kerja berhubung penggunaan amalan baik KLT berdasarkan model binari probit dan logit bagi industri padi dan beras di Malaysia. Konsep rangka kerja ini merangkumi aktiviti berturutan KLT bermula daripada aktiviti penuaian, pengangkutan, pengeringan, pengilangan, dan penyimpanan. Oleh yang demikian, polisi atau peraturan-peraturan berhubung pematuan APB terhadap aktiviti KLT dapat ditambahbaik, keutamaan dapat diberikan kepada mengurangkan kerugian yang berlaku di sepanjang rantaian nilai KLT disamping mencapai kecekapan pengeluaran. Usaha-usaha ini juga membantu negara untuk memperkasa agenda sekuriti makanan dan mencapai kelestarian pembangunan beras.

Kata kunci: amalan pertanian baik (APB); kerugian lepas tuai; kecekapan pengeluaran; model binari; sekuriti makanan

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