Value Chain and Production Efficiency Analysis of Small-scale Seaweed Farming in Ipil, Zamboanga Sibugay, Philippines

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Abstract

The LIFE (Livelihood Improvement through Facilitated Extension) model is an extension model that aims to improve the livelihood of the predominantly Kalibugan Muslim community in Sitio Katipunan, Ipil, Zamboanga Sibugay, Philippines. In this coastal community, seaweed farming is the main source of livelihood for over 100 households. A value chain analysis was used to understand the relative position of these farmers in the value chain. After identification of major issues, an assessment of production efficiency was done using data envelopment analysis (DEA) and a Tobit regression model was used to identify determinants in the efficiency of production. Baseline survey data from seaweed farmers was collected and used for the value chain and production efficiency analysis. Average income and production of seaweed farmers per cropping was recorded at PhP 3881 and 2228 kg. Major issues in production were identified such as the prevalence of pest and diseases, farm cultivation technology, and adverse weather conditions. DEA results showed that 80% of the respondents are technically efficient. Also, farm location factors into the efficiency and profitability of farms with farms located in deep sea (TE=1.0; P=3650 PhP) doing better compared farmers growing seaweeds near shore (TE=0.952; P=2525 PhP). Tobit regression reaffirmed these findings with farm location, gender, product type, and weather conditions as significant variables. With productivity being a major issue in the chain, possible interventions that encourage better farming practices and using appropriate seaweed cultivation technology could significantly improve their livelihood.