



Investigation on the Issues of Protected House Farmers' Sub Agricultural Sector in Sri Lanka. A Case Study of Farmers in Matara District, Southern Province Sri Lanka.

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ABSTRACT

Sri Lankan agriculture sector has shown a technological transformation with addressing traditional challengers and barriers to improve production, productivity, and quality of the products in the last decades. Protected houses, green-houses, or in terms of growing crops under a controlled environment can be identified as one of the newly emerged sub sectors in the Sri Lankan agriculture sector. The protected house farming community in Sri Lanka is still unable to achieve the desired perspectives of adapting to those technologies. This study was conducted to analyse the current context of the small and medium-scale protected framers in Southern province, Sri Lanka. The investigation was done by interviewing 30 small and medium-scale protected house farmers using a semi-structured type questionnaire. Management practices including irrigation, fertilizers and raw materials, transportation, financial status and market availability and technological adaptations were considered as thematic areas for the analysis. When considering labour used for crop management practices ,93% of the protected house farmers only used family labour for the daily crop management practices. Only 7% of the target group used both hired labour and family labour for the crop management in the protected house. Each farmer utilized an average of 4.5 labour hours per day for 1000ft² for management practices including training, fertigation and harvesting. Ninety five percentage of respondents stated that they cannot leave their protected house without any supervision because of the daily management practices including irrigation and fertilization. Every farmer was aware of the importance of controlling microclimate conditions to increase crop productivity and the role of automation for it. They reported that the bell pepper and salad cucumber did not meet the market quality during prolonged high temperatures. Results revealed and highlighted those major issues on lack of technological system implementations for microclimate control, inability to leave the crop at least a day, scarcity of labour and unavailability of a proper consultation channel. The highlighted major issues have hindered the development of protected agriculture in Sri Lanka. Strengthening of the consultancy services on management practices and new technologies that potential to adapt local existing conditions are recommended to increase the productivity and promote adaptation to protected house cultivations.

Keywords: *Protected Agriculture, Technology Adoption, Survey, Cultivations*