

Abstract

The aim of this study was to compile composite indicators for quantifying the agro-ecological and socio-economical sustainability of greenhouse production in Sistan and Baluchestan. Data were collected from 400 greenhouse systems at four different regions using a face-to-face questionnaire during 2014. The sample size was calculated using the Cochran method. Four surveyed regions included Sistan, Zahedan, central region of the province covering Khash, Saravan, Mirjaveh and southern region of the province covering Nikshahr, Iranshahr and Sarbaz. After verification of the questionnaire, data were analyzed. Average score of sustainability index in greenhouse system is 59.88. The results of step by step regression progressive showed that the most important factors determining the sustainability index in the systems were; economic efficiency of water, type of greenhouse ownership, costs of fertilizer, source of water supply, neighboring owner living and technicians education of owner. The study of critical points revealed that correct management of greenhouses, employing certified technical experts and introducing and implementing modern technology to mechanize the greenhouse equipment will be lead to sustainable greenhouse and crop yield increasing in the region.

Keywords: Sustainability, Greenhouse production systems, Sistan and Baluchestan



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Supervisors:

Dr. A. Ghanbari

Advisors:

Dr. M.R. Asgharipour

Dr. B.A. Fakhri

By:

Mohammad Reza Rafiei

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