

Investigating the Role of Processes in Improving Agricultural Water Productivity in Iran

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Abstract

Iran has been faced with severe water resources scarcity and significant share of these scarce resources have been used in agricultural sector. One of the most important strategies for reducing the impact of these shortages is to improve the agricultural water productivity (WP) and to reduce utilization of water resources, which will be discussed in this article. This research is of both applied and development type and its methodology was based on library studies and field activities, using documentary study, survey and exploration. The statistical population consisted of experts and specialists of administrative institutions, university professors and research specialists in the field of agricultural WP, together with experienced farmers. All these stakeholders were selected by purposive sampling method. The study aimed to identify the most important processes for improving WP and to prioritize them. Through library and archival studies, and then by using the feedback obtained from professional meetings and interviews with the experts and stakeholders. Therefore, 2 centric process, 4 main processes, and 16 index processes were identified and were identified by means of questionnaire. The ranking of importance was determined on a LIKERT five option range, and then the results, questions, and hypotheses were examined by help of statistical software. Accordingly, the impacts of identified processes on improving WP were different, but all the processes had strong positive impact. Of the two centric process, "agricultural product reform processes" by a factor of 0.938, among the 4 main process, "reform process of agricultural production" by a coefficient of 0.786, and among the 16 indicators processes, the process of "reuse (recycling of) agricultural water" with a coefficient of 0.785, had the greatest impact on improving agricultural WP.

Keywords: Water and production processes, Food security.

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