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"Solidarity in a competing world — fair use of resources"

Challenges and Prospects for Transitions to Conservation Agriculture in Iran

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Abstract

In Iran, conservation agriculture (CA) has become a national strategy for the agricultural sector to decrease soil erosion, combat the emerging water crisis, and to reduce the high cost associated with conventional agricultural production. CA involves minimum soil disturbance, permanent soil cover through crop residues or cover crops, and crop rotations. It has emerged as a management practice with the potential of increasing the sustainability of soil and water, reducing the cost of production and improving efficient use of resources. Despite its promotion for nearly one decade, CA is not widely adopted by farmers throughout Iran. Only an estimated 1.5 million ha of land is managed through CA. In this paper we present the status of CA in Iran, and the barriers farmers face during the transition from conventional agriculture to CA. We used qualitative social science methods for establishing the status of CA in Iran. Based on 32 expert exploratory interviews carried out in 9 provinces, we have prioritised the most important factors impeding and supporting the transition from conventional agriculture to CA. Our findings show that the dissemination of CA technology is slow. Moreover, farmers abandoned CA due to lack of or insufficient access to machinery and equipment for CA; limited access to credits to purchase CA machines and inputs; poor economic benefits during early phases of CA practices; lack of knowledge and experience of residue supply and management; and management and control of weed, pest and diseases. At policy level, the lack of knowledge about CA among key decision makers hinders its promotion; but also a weak set of special formal organisational structures, rules and informal norms (institutional framework); lack of strategic long-term plans and low investments in agricultural credit, infrastructure, and markets for its development are the main reasons for CA not spreading faster in Iran. Therefore, an enabling government policy and institutional environment are needed for the development of CA.

Keywords: Conservation agriculture, Iran, technology, transitions

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