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Energy Security and Global Warming Mitigation versus Food Security: What They Think about Biofuel

Masoud Yazdanpanah, Ziba Bakhtiyari

Khuzestan Ramin Agricultural and Natural Resources University, Dept. of Agricultural Extension and Education, Iran

Abstract

Biofuels could make a significant contribution to resolving the challenges of climate change, slowing the depletion of energy resources, reducing dependence on oil, and increasing agricultural incomes. The cultivation of biofuels would have the added benefits of enhancing soil and water quality. Yet, in Iran, there has been little debate on their role. Some suggest that cultivating biofuels could be one way of addressing some of the many climate-change-related problems currently faced by Iran. However, if countries' aim is to achieve the binding targets of biofuel development, there must be greater emphasis on improving the education of farmers and consumers with respect to biofuels, and on communicating effectively with them about such crops and their role in the larger energy picture. As education and communication could be a catalyst for biofuel adoption, the role of agricultural professionals and experts is very important. Agriculture professionals and experts are an important source of information for farmers regarding adoption and innovation. They can facilitate the adoption of innovations or they can limit their diffusion. However, only if these people are knowledgeable and well disposed towards the biofuel concept, the necessary knowledge and values can be properly incorporated into the farmer and consumer learning process. Extensive research has been conducted regarding the perceptions of biofuels held by stakeholders such as the public, students, consumers, and foresters. To the best of the authors' knowledge no such studies have concentrated on the case of agricultural professionals and experts. The aim of this study is to provide much needed empirical data about the perceptions of Iranian agricultural professionals toward biofuels. It will provide a knowledge base for the development of public policy measures that aim ultimately to increase biofuel adoption among Iranian farmers.

The results of the study revealed that, on the one hand, agricultural experts are well aware of the role of biofuels in future energy security and in mitigation of global warming. They are also aware of the potential effects of biofuel on food production and prices. Further, they also show a high degree of willingness to consider developing these products.

Keywords: Biofuel, climate change, energy security, food security