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Choice modelling of sustainable agricultural practices for cleaner food production in Pakistan

By

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Abstract: *Agriculture in Pakistan is currently unsustainable due to intensive farming practices – the concentrated use of inputs, including water and agrochemicals. The widespread use of intensive farming has dire effects on both human health and the natural environment. This research proposes the reduction in the use of agrochemicals such as pesticides and fertilizers and adoption of efficient irrigation technology using market-based mechanisms, i.e. economic incentive schemes. The study uses the discrete choice modelling approach to investigate tomato farmers' preferences and their willingness to accept (WTA) for a price premium to implement the proposed changes to adopt sustainable agriculture in Khushab district of Pakistan.*

Findings reveal that farmers are willing to reduce the use of pesticides and fertilizers, but derive negative utility from the adoption of drip irrigation. WTA estimates demonstrate that farmers have a negative WTA for the reduction in the use of pesticides and fertilisers, however adoption of drip irrigation has positive WTA. The results indicate that the tomato farmers in Khushab are willing to adopt the sustainable agriculture production methods at possibly lower than expected cost, as they need compensation for only drip irrigation. This implies that the proposed changes in current farming practices are economically viable, and hence that market-based approaches to control agricultural pollution may be more effective than regulations in Pakistan.

Dr Ajaz Ahmed is working as an Assistant Professor in the department of economics at the IBA, Karachi. He has a background of environment and climate change economics. Ajaz has been involved in environment and climate change teaching, training and policy research and has worked with several reputed organizations nationally and internationally. He has authored a few publications on some of the pressing issues such as water, energy and climate change adaptations. Ajaz is an Associate and Grantee of South Asian Network of Development and Environmental Economics (SANDEE) and Adaptation Finance Fellowship Programme (AFFP).

Date: Friday, December 11, 2020

Time: 04:00 P.M.

Webinar link:

https://us02web.zoom.us/j/3278607467?pwd=dDNZR3FENGxNeWI5YVRaNThQb0E3QT09

Meeting ID: 327 860 7467

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