World Academy of Science, Engineering and Technology
International Journal of Agricultural and Biosystems Engineering
Vol:12, No:08, 2018

Dynamics of Soil Fertility Management in India: An Empirical Analysis

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Abstract : The over dependence on chemical fertilizers for nutrient management in crop production for the last few decades has led to several problems affecting soil health, environment and farmers themselves. Based on the field work done in 2012-13 with 1080 farmers of different size-classes in semi-arid regions of Uttar Pradesh, Jharkhand and Madhya Pradesh states of India, this paper reveals that the farmers in semi-arid regions of India are actively managing soil fertility and other soil properties through a wide range of practices that are based on local resources and knowledge. It also highlights the socio-economic web woven around these soil fertility management practices. This study highlights the contribution of organic matter by traditional soil fertility management practices in maintaining the soil health. Livestock has profound influence on the soil fertility enhancement through supply of organic manure. Empirical data of this study has clearly revealed how farmers' soil fertility management options are being undermined by government policies that give more priority to chemical fertiliser-based strategies. Based on the findings it is argued that there should be a 'level playing field' for both organic and inorganic soil fertility management methods by promoting and supporting farmers in using organic methods. There is a need to provide credit to farmers for adopting his choice of soil fertility management methods which suits his socio-economic conditions and that best suits the long term productivity of soils. The study suggests that the government policies related to soil fertility management must be enabling, creating the conditions for development based more on locally available resources and local skills and knowledge. This will not only keep Indian soils in healthy condition but also support the livelihoods of millions of people, especially the small and marginal farmers.

Keywords : livestock, organic matter, small farmers, soil fertility
Conference Title : ICSAFS 2018 : International Conference on Sustainable Agriculture Farming Systems
Conference Location : Amsterdam, Netherlands
Conference Dates : August 06-07, 2018