

Organic farming in India: Challenges under a changing climate

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Summary

Excessive use of fertilizers and chemicals in agriculture has become a serious environmental issue in India. The green revolution that helped India to overcome food crisis led to large-scale degradation of land and water resources. India is in the path of intense agricultural development to feed the fast rising population. Promotion of organic farming can contribute to the attempts in controlling the rising temperature. India has cultivable drylands where organic farming can be newly introduced. Organic products from India have a good market outside. However, the small and marginal farmers face a number of challenges including the availability of ideal land, finance, proper insurance, good market and competition with the large firms. Organic farming is important as problems related to climate change are linked to fossil fertilisers. Because of poor land management practices, the soils of India under different climate zones have lost a significant amount of Carbon which can be solved through the improvements in farming systems and use of organic material. India was too late to develop an agricultural policy and climate policy. Even the guidelines of existing environment policies are not properly implemented because of various socio-economic, political and administrative reasons. This paper highlights the importance of organic farming in India under a changing climate and environment and rising population. An assessment of the climate change on different zones and current scenario of organic farming and a review of existing policies and management practices have been made. There is a tendency of increasing seasonality of rainfall that reduces groundwater recharge in major parts of the country. Long gap in rainfall and loss in soil moisture due to rising temperature are challenges to farming. Measures to recharge groundwater during active monsoon period and extension of irrigation facilities are urgently required. Agriculture policy should be revised to encourage cooperative farming and to prove linkages between market and farmers. There should be incentives to farmers and proper insurance to overcome failure in production due to adverse climate. India has the potential to develop organic agriculture. At present only 0.03% of the cultivated area is under organic farming. Since the soil in the vast area under agriculture is already filled with chemicals and fertilizers, it is better to extend organic farming into the cultivable wastelands. Small farmers in India can benefit from the organic farming that may help eradicating poverty. Low investment, less dependence on money lenders and opportunity to utilise the abundance of traditional knowledge are attractions for the poor farming communities of rural India. Developments in agriculture will enable the country to face the possible food crisis associated with fast rising population.

Key words: organic agriculture, degradation, India, climate change, policy