



Editorial

ARE CLIMATE SMART INDIGENOUS FARMING SYSTEMS SUSTAINABLE?

The inquiry on climate resilient agriculture generally end with indigenous agricultural systems developed and practiced by tribal communities of the world. Indigenous agriculture practices like shifting cultivation is a widely praised system for its cooperative farming approach and maintaining close interrelationships between ecological and social systems irrespective of the criticisms on the system that it has caused deforestation and soil degradation. In India, the traditional shifting cultivation systems are rainfed and rich in crop diversity as tribal farmers grow nearly 10-15 types of crops together and this system provides sufficient foodgrains to feed the farm family even under extreme weather conditions like excess rainfall or less rainfall. Historically, indigenous people aligned their food system with the seasonal cycles and the best example for this is their seasonal eating habits.

Some recent researches reported that throughout the world indigenous agriculture systems are mostly in a transforming phase in response to changing food habits of tribal communities and increasing monetary requirements of the farm families, abandoning some of their sustainable agricultural practices and adopting some new practices. In a scenario where there are calls from different agencies to go back to the age old natural ways of managing agricultural lands as well as to preserve the existing naturally managed agriculture ecosystems these kinds of negative trends raise questions on the capability of indigenous farming systems to support the financial requirements of its practitioners. Studies on

various indigenous agricultural systems existing in the tribal pockets of India conveyed that the average crop yield from these naturally managed systems are relatively low hence, could not generate enough marketable surplus after meeting the family food requirement. This point out the need for conducting more studies on these agricultural systems so that the core issues associated with low productivity and profitability can be tackled. In fact, the ecological and social sustainability aspects of most of the naturally managed tribal agriculture systems are still recognized as promising by the researchers.

In this issue of Harit Dhara articles on traditional farming practices of northeast India, miyawaki forests of India, chromium contamination in soil due to industries, blue carbon ecosystem, potential use of natural abundance of carbon isotope ^{13}C , use of naturally available inputs like tank silt and zeolites in agriculture, and some innovative techniques of composting agro-waste are included.

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