

PROBLEMS AND PROSPECTS OF ORGANIC FARMING: AN ANALYSIS ON AGRICULTURAL SOCIAL SUSTAINABILITY IN RAJASTHAN

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Abstract

Sustainability of agriculture is a matter of concern for various stakeholders. The challenges encountered by Indian agriculture are due to agro-climatic/environmental, social and economic dimensions. The sustainability strength comes due to vibrancy of these dimensions. In order to understand the regional and temporal dynamics of these dimensions, a state-level analysis of sustainability was made for two time-periods. The sustainability index estimation was based on the human development index methodology. The results revealed that in general, sustainability did not deteriorate over the reference period, although some states gained and some others lost in terms of change in the level of sustainability. The role of agricultural sector in Indian economy can be seen through its contribution to Gross Domestic Product and employment. This article mainly discussed the problems and prospects of organic farming: an analysis on agricultural social sustainability in Rajasthan and its status.

1. OVERVIEW

Sustainability has become a key term for linking environmental, economic, and social issues, in both the sciences and politics. Conceptions and frameworks of sustainability have, in this manner, emerged to evaluate rural systems on their sustainability. Inside these conceptions and in political and scientific talks, what can be comprehended as the social mainstay of sustainability in agriculture fluctuates incredibly, particularly concerning the extension and the sustainability benchmarks applied.

While rustic occupants have been subject of different 'sustainability studies', the thought of the social dimension in agriculture is still rather underrepresented. The theoretical framework can add to upgrade the comprehension of the social dimension of sustainability by using a social science-based way to deal with fathom the multifaceted nature of social interaction in agriculture:

Given Parsons' system approach, we catch the segments of a social system that envelops agriculture and its embeddedness in the public eye. This incorporates every significant on-screen

character, their interactions, and institutions. Further, we build up Maslow's hierarchy of necessities just as the rights approach a sustainability scale. We call a reasonable framework for the sustainable farming social system. This general framework can later be adjusted to local social and social settings, filling in as an increasingly extensive and adaptable sustainability framework[1]. Sustainable development is regularly examined in its economic, social, and environmental aspects.

The social sustainability on which the creators have centered is basically found as far as employment and income. Employment is respected both in quantitative terms when the employment rate increments, and in subjective terms when the aptitudes of the workforce are upgraded[2].

Numerous creators stress the significance of increasing employment in provincial areas (upheld, among others, by Community funds), which is firmly related to the diminishing pace of social exclusion, and in this way, increasing social governance by decreasing eradication of these areas and improving the quality of life.

For instance, Torres et al. (2016) showed that running ecological farms improves the circumstance of the local community and is especially alluring in areas portrayed by moderately high unemployment, along these lines increasing their social order[3].

Additionally, the quality of employment, for example, qualifications and education, just as human and social capital in a wide sense, is certainly connected to social sustainability, as they directly affect the income of the horticultural populace. The income perspective is likewise brought up in an alternate setting - because of sustainable farming.

Models from different nations show that sustainable agriculture is superior to industrial agriculture since it doesn't negatively affect the rural populace, devastating farmers, and along these lines, denying those chances for development.

2. SOCIO-ECONOMIC STUDY OF ORGANIC FARMING IN IRRIGATED NORTH WESTERN PLAIN ZONE OF RAJASTHAN

Organic farming is the most recognized sustainable farming system. It has evolved as an alternative to chemical-induced farming. It is the production system that largely avoids the use of synthetically compounded fertilizers, pesticides, and growth regulators. Organic agriculture is an environmentally and socially sensitive food supply system. The primary goal of organic agriculture is to optimize the health and productivity of independent communities of soil life, plants and animals, and people.

Organic farming has been identified as a major thrust area of the 10th plan of the Central Government. The research and extension efforts have been continued by different agencies to popularize this alternative form of agriculture among the farmer. The State government is also promoting organic agriculture by providing subsidies on critical inputs used in organic cultivation.

The “Socio-Economic study of organic farming in Zone 1-b of Rajasthan is important as it will provide necessary information about the economic benefits if any, to the organic farmers in comparison to the inorganic farmers. Organic farming is becoming popular among the farming community. It is environmentally friendly, a low-cost alternative method of doing agricultural production in comparison to present-day chemical-induced agriculture.

Knowledge level of organic farmers

Majority of the farmers were possessing medium level of knowledge regarding scientific organic farming practices while remaining farmers have good Knowledge. The findings of the study are in conformity with those of Dangi and Jain (2007) who reported that beneficiary farmers have higher adoption of organic farming practices due their high acquaintance of organic farming[4]. Meena (2003) also reported that farmers who were in contact with KVK’s JaivikKheti Programmer have higher knowledge of organic farming practices[5].

3. PROBLEMS AND PROSPECTS OF ORGANIC FARMING: AN OPTION FOR SUSTAINABLE AGRICULTURE

The unpredictable utilization of fertilizers, weedicides, and pesticides created another test for the sustainability of modern agriculture and the environment. Natural farming is, in this manner, considered a development coordinated towards the way of thinking of "back to nature". It goes for low info farming in this manner, decreasing reliance on inorganic fertilizers, herbicides, and plant security chemicals. Keeping in see above realities, the government has started different projects and plans for the advancement of natural farming in our nation.

The majority of the farmers utilized F.Y.M. furthermore, sun hemp as green maturing crop for soil improvement. It was additionally found that the majority of respondents were utilizing a social, organic, and physical strategy for bothering the executives in all yields, though the vast majority of the respondents trailed shape farming for controlling soil erosion.

The research indicated that the majority of the respondents (68.75%) fell in the medium information gathering, while 7.50 percent could be put under high information gathering, and 23.75 percent of respondents had inadequate information about natural farming practices.

Agricultural Sustainability in Rajasthan: Current Challenges and Future Perspective

Rajasthan which is already facing agricultural crisis in view of low water availability, poor soil health, small land holdings, frequent droughts and poor post-harvest managements, needs to focus more on sustainable agriculture practices when climate change related impacts will be posing more consequences to this sector in future.

Rajasthan not only faces the issues related to low production and productivity but income from agriculture is also very low and other side farmers are overburdened with input cost and agriculture is not seen as a viable option for livelihood if immediate steps are not taken to improve the status.

The exploration is restricted to organic farming, where the outcomes recommend that transformation to organic farming can improve the vocations of smallholders while securing natural assets. Salary misfortune because of diminished yields in starting long periods of change, be that as it may, establishes a significant obstacle, particularly for less fortunate farmers. It is along these lines imperative to help farmers in conquering the obstructions of the transformation time frame from inorganic to organic farming.

4. DROUGHT AND FLOOD IMPACT ON AGRICULTURE PRODUCTION

The most immediate effect of erratic rainfall on rural livelihoods is on crop production. Dry spells and floods undermine farm yields and the national harvest, reducing family unit and domestic food availability, and rural income got from crop deals. Climate change is perceived as one of the most genuine and pressing issues for human culture and the worldwide environment.

A recent report by the World Bank finds that the most extreme effect of a changing climate would be the impact on water supplies. The report suggested that by 2050, an insufficient stock of water could thump down economic growth in individual pieces of the world by a figure as high as 6% of gross domestic product (GDP), sending them into sustained negative growth.

Locales facing this hazard can, in any event, halfway deflect this by better water management. Climate change hits water supplies in different manners. Warm temperatures can cause more vanishing of water from landscapes, while changes in precipitation can prompt both increasingly serious individual storms yet additionally swings into dry season conditions.

Can Organic Farming Contribute To Sustainable Agricultural Development

Agriculture sector is vital for the food and nutritional security of the nation. This sector remains the principal source of livelihood for more than 55% of the population and contributes around

(13%) to the national GDP of our economy. Organic agriculture can contribute to meaningful socio-economic and ecologically sustainable development, especially in developing countries.

5. CONCEPT OF ORGANIC AGRICULTURE AND SUSTAINABLE DEVELOPMENT

Organic agriculture profoundly respects indigenous knowledge, women's knowledge and local solutions. Producers have control over the production cycle and increase their self-confidence. Local and international organic producers play an active role in advancing their production methods and standards. Organic agriculture has the potential to fulfill the food requirement of the world with sustainable resource utilization. Growing awareness of health and environmental issues associated with the intensive use of chemical inputs has led to an interest in alternative forms of agriculture in the world.

Organic agricultural is one among the broad spectrum of the production method that is supportive of the environment[6, 7]. Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles.

6. IMPORTANCE OF ORGANIC AGRICULTURE IN INDIA

Organic farming is gaining gradual momentum across the world. Growing awareness of health and environmental issues in agriculture has demanded production of organic food which is emerging as an attractive source of rural income generation. Organic agriculture has made a credible performance during the past ten years.

Both, the 11th plan document on organic sector and the report of the National Commission on farmers have recommended it as a tool for second green revolution in the country in particular for agro- eco zones comprising rain fed areas, hilly areas and areas experiencing ecological backlash of green revolution.

Organic agriculture can become low cost, sustainable option of farming in the country, particularly by the small farmers in rain fed areas and helps to improve their food and income security. It helps to produce and supply adequate safe and nutritious food to the producers and consumers of the nation. Environmental benefits, health aspects and farmers empowerment are other important factors influencing farmers to shift to organic agriculture. Some of the important benefits of organic farming are organic fertilizers are completely safe and does not produces harmful chemical compounds.

7. AN ANALYSIS ON AGRICULTURAL SUSTAINABILITY IN INDIA

Agriculture in India is facing a few challenges which together manifest into sustainability issues. The side effects of agrarian insecurity are problematic development, nonattendance of alluring benefits, and interruption or development of farmers from the sector. The causes lie in the draining status of natural assets and the financial states of the farmers. Sustainable agriculture is the active production of sheltered, high-caliber agrarian items in a way that secures and improves the natural environment, the social and financial states of the farmers, their workers and neighborhood networks, and shields the health and welfare of all cultivated species[8].

A few systems and models on estimating farming sustainability have been proposed under different production ecosystems[9]. Consequently, it is derived that sustainability in agriculture is a mind-boggling idea, and there is no agreement among researchers about its measurements. Worries about sustainability in rural frameworks revolve around the need to create advancements and practices that don't effectively affect environmental merchandise and ventures, are open to and viable for farmers, and lead to upgrades in food profitability.

It is additionally recognized that sustainability in farming frameworks fuses ideas of both flexibilities (the limit of contexts to support stuns and stresses) and industriousness (the limit of structures to proceed over significant stretches), and addresses numerous more extensive financial, social and environmental challenges. India has an extraordinary decent variety in agro-climatic zones with upwards of 127 zones under five agro-environments, for example, rainfed, dry, flooded, seaside, and sloping frameworks. Notwithstanding, information concerning different parameters that are utilized for sustainability are commonly accessible for the regulatory units, for example, regions and political limits of states, instead of natural limits, for example, watersheds or agro-climatic zones.

8. CONCLUSION

In overall Rajasthan, all categories of farmers have been found under very high level of overall crop diversification. All the marginal and small farmers in Rajasthan should be given more emphasis towards economic as well as social development to improve their sustainable livelihood security. Sustainable agriculture gives equal weight to environmental, social, and economic concerns in agriculture. Agricultural sustainability rests on the principle that we must meet the needs of the present without compromising the ability of future generations to meet their own needs.

Socioeconomic status is the field of study that examines social and economic factors to understand better how the combination of both influences something. The socio-economic characteristics of demography, means of production, and investment of income and expenditure patterns of people living in a particular location strongly influence their responses to

technological changes and participation in development schemes. The goal of the socioeconomic study is to bring about socio-economic development in terms of understanding the present condition of a particular area. Socioeconomic study of villages is mainly for understanding the present state of villages regarding lifestyle, education status, and health status, dependency on the forest, water hazards, food scarcity, and overall development of rural areas. The study focuses on the socioeconomic status and of respondents.

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