

The Role of Agricultural Policies in Promoting Sustainable and Equitable Food System: A Quantitative Study

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Abstract

In the constitution of India, Agriculture is defined to states of the country where they are obliged to and given the right to implement the agricultural policies. Central government also specifies the policies and provides monetary help to states for the implementation of agricultural policies but the decision of fully and partially utilizing the assistance lies with the state. It should be mentioned that the primary goal of the green revolution in India when it first began was to enhance agricultural productivity in order to make India self-sufficient in this area, but lately the tendency has changed to focus on income generation. Although the concept of using agriculture as a source of money is not new, this strategy has seriously damaged Indian agriculture's reputation as the use of chemical fertilizer increased. Following this observation, the government developed several efforts and laws to boost agricultural revenue while also encouraging sustainability and equitable food distribution.

Keywords: Agricultural Policies, Promoting Sustainability, Equitable Food System, Indian Agriculture, Agriculture Production in India

Introduction

The National Mission for Sustainable Agriculture, proposed in 2008, is a critical program for increasing the sustainability of the agriculture sector. The scheme includes three main programs aimed at the sustainable development of agriculture in India. One of the schemes, Rainfed Area Development, focuses on improving the income of farmers and reducing the extreme effects of weather such as floods and droughts. The scheme encourages integrated agricultural systems in areas of the country that experience less rainfall. The focus is on different cropping patterns, horticulture, livestock, and other practices to increase sustainability. The program has played a significant role in the development of sustainable agricultural practices and has improved the livelihood of farmers across the country. The National Agroforestry Policy, launched in 2016, is another initiative by the government to promote sustainable agriculture practices. The program encourages tree planting alongside agricultural production, aiming to increase the plantation of fruit-bearing or wood trees. The initiative is an alternative to traditional agricultural practices and is aimed at improving the sustainability of the agriculture sector in India. The policy aims to create a framework for the integration of trees into farming systems to increase the productivity of the land, improve soil fertility and enhance biodiversity. The program has been successful in promoting sustainable agricultural practices, improving the livelihood of. This approach increased the income of farmers in the long run and enhanced the soil health. This scheme

proved helpful for small and marginal 2015 saw the launch of the Soil Health Care initiative, which aims to advance responsible soil management. As part of this initiative, farmers received information on the nutritional value of the soil, suggestions for crops that would grow well there, and instructions on how to take action to increase the soil's fertility. This initiative achieved two goals. The farmers drastically reduced their spending, which raised their revenue. If the soil's fertility is preserved, sustainability's primary goal has been achieved (Aggarwal, Joshi, Ingram, & Gupta, 2004 and Sekhar, 2014).

The field of food systems has become increasingly important in recent years, as global challenges such as climate change, population growth, and food insecurity have highlighted the need for a more sustainable approach to food production and consumption. This has led to a growing recognition of the interconnectedness of various stakeholders and activities within the food system, and the need for a coordinated effort to address the challenges facing the sector. To achieve a sustainable food system, it is essential to consider not only the economic aspects of food production and consumption, but also the social and environmental dimensions. This requires a holistic approach that takes into account the entire lifecycle of food products, from production to disposal, and the various factors that influence the food system, such as policies, infrastructure, and consumer behavior. A sustainable food system must ensure that everyone has access to safe and nutritious food, while also promoting economic growth, protecting the environment, and supporting social equity. Achieving this goal will require collaboration among diverse stakeholders, including farmers, processors, retailers, policymakers, and consumers, to identify and implement innovative solutions that can transform the food system for the better (Kadiyala, Harris, Headey, Yosef, & Gillespie, 2014).

Literature Review

In one study, it was found that due to the implementation of different policies in agriculture, the government promoted sustainability in the food system. Sustainable food systems bring economic benefits to different classes. This means that economically, a food system is considered sustainable if the operations of each food system participant or support service provider are profitable. All stakeholder groups are expected to benefit from operations, including employee salaries, government tax revenue, business profits, and improved food supplies for customers. When there is equality in the distribution of the economic value contributed, taking into consideration disadvantaged groups characterized by gender, age, race, and other factors, a food system is deemed sustainable from a social perspective. The promotion of critical socio-cultural outcomes including nutrition and health, traditions, working conditions, and animal welfare must be a major goal of the food system's operations. Considering biodiversity, water, soil, animal and plant health, the carbon emissions, the water usage, food waste and disposal, and toxic effects, sustainability is established by ensuring that the consequences of food system operations on the natural surroundings around them are either beneficial or neutral (Bhattacharyya, Ghosh, Mishra, Mandal, Rao, Sarkar, Franzluebbbers, 2015).

In a research it was observed that sustainable development has promoted equitable food system. India is a country of masses and feeding them equally is a very big challenge for the government. At the same most of population reside in remote areas where access to food and other eatables is limited. This led the government to focus on food supply chain. Apart from this the government also encouraged the local people to grow their food in many ways. It was very difficult for the government to feed the vast population of the country where many people were living on below poverty line. Therefore India's agriculture mainly focused on food production. Today India not only is a self-reliant country in food produce but also a net exporter of food items. Despite being an exporter of many food items, many people in India still leave in undernourished conditions. Keeping this problem in view government aimed for equitable food system and launched many schemes for its distribution. Apart from this for the easy accessibility and affordability of food, in 2014 government came up with Price Stabilization Fund. This scheme focused on potatoes and onions as the prices of these eatables experience high volatility and the demand always remain high. This scheme protected the interest of consumers (Balasubramanian, 2015 and Monasterolo, Pasqualino, Janetos, & Jones, 2016).

In a research it was estimated that agriculture policy contributes in sustainable development. In order to meet the sustainable goals the Soil Health Management initiative of the National Mission of Sustainable Agriculture was implemented. It also includes the Paramparagat Krishi Vikas Yojna. The plan calls for giving Indian farmers financial incentives to encourage them to transition from conventional to traditional farming methods. The conversion is receiving financial assistance from the government. Every government routinely carries out a set of regulations to support agriculture. It is also the most important agenda for creating policy. The Paramparagat Krishi Vikas Yojana uses traditional agricultural methods to generate organic farmlands. It strives to build long-term organic farming models that incorporate traditional wisdom in order to ensure long-term soil fertility growth, resource conservation, and aid in adaptation and mitigation of climate change. Food grown organically has more nutritional value. It aids in preserving the soil's fertility. It discourages using chemicals to make crops free of toxins by using fertilizers and insecticides instead. Food devoid of pollutants helps prevent health problems earlier on since poisons are absorbed by crops. Because organic plants have more metabolic and structural integrity in their cellular structure, organic farming permits the preservation of organic food for a longer period of time (Singh, Chand 2011 and Chand, and Pavithra, 2015).

In a research it was found that agricultural policies helps the farmers to mitigate the risk of crop failure for doing so the government launched National Initiative on Climate Resilient Agriculture. By the development and use of enhanced production and risk management technologies, this program seek to increase the resilience of Indian agriculture, including crops, animals, and fisheries, to climatic variability and climate change. This effort teaches farmers how to adapt to the hazards posed by the present environment by demonstrating site-specific technology packages on their farms. Enhancing the expertise of researchers and other interested parties in climate resilient agriculture practices is another goal. It is necessary to secure

sustainable agriculture by forging an agreement on it and popularizing sustainable techniques to encourage their wider adoption. Also, there is a chance for farmers to earn more money through methods like organic farming, which has to be taken advantage of. Government safeguards the earnings of about half the population and advances equitable development by guaranteeing climate resilience in agriculture (Bhanja, Mukherjee, Rodell, Wada, Chattopadhyay, Velicogna, Kishore, & Famiglietti, 2017).

In a research it was estimated that agricultural policies reduce the over exploitation of water resources. For increasing agricultural yield, crop intensity, and output quality while reducing risks in agriculture, guaranteed irrigation and availability to water are essential. The main engines driving agriculture's growth have been technology, fertilizer, and irrigation expansion. To increase the area irrigated, significant public and private investments have been undertaken over time. Seeing the crucial role that water plays in increasing harvests, several authorities began subsidizing or providing free power for irrigation. This initiative of government increased the productivity of agriculture goods and also the income of farmers. This also led the availability of food for many people in the country. Funding is needed for water strategy and execution in agriculture. A well-functioning management and planning system frequently requires the stipulation of rights and the growth of water markets. Water resource agencies, which frequently operate in the public interest and require proper funding, oversee the operation of irrigation systems, management of entitlements within them, and supply and pricing of the water under those entitlements (Gupta, Somanathan, & Dey, 2017 and Contò, Fiore, Monasterolo, & La Sala, 2014).

Objective

To find the role of agricultural policies in promoting sustainable and equitable food system

Methodology

This study is descriptive in nature in which the data was obtained from the 170 respondents who are implementing agricultural policies for agriculture activities. In the study the mix of all agricultural activities has been covered. A checklist question was used to analyze and interpret the data. In a checklist question respondents choose “Yes” or “No” for all the questions.

Data Analysis and Interpretations:

Table 1 Role of Agricultural Policies in Promoting Sustainable and Equitable Food System

SL No.	Role of Agricultural Policies in Promoting Sustainable and Equitable Food System	Yes	% Yes	No	% No	Total
1	Agricultural policies increase crop productivity in sustainable way	154	90.59	16	9.41	170
2	Agricultural policies facilitate equitable food supply	149	87.65	21	12.35	170
3	Agricultural policies increase crop diversification	142	83.53	28	16.47	170
4	Agricultural policies improve nutrition	139	81.76	31	18.24	170

	in food					
5	Agricultural policies facilitate the availability of affordable food	135	79.41	35	20.59	170
6	Agricultural policies increase soil fertility	152	89.41	18	10.59	170
7	Agricultural policies mitigate the risk of crop failure	140	82.35	30	17.65	170
8	Agricultural policies reduce over exploitation of water resources	133	78.24	37	21.76	170

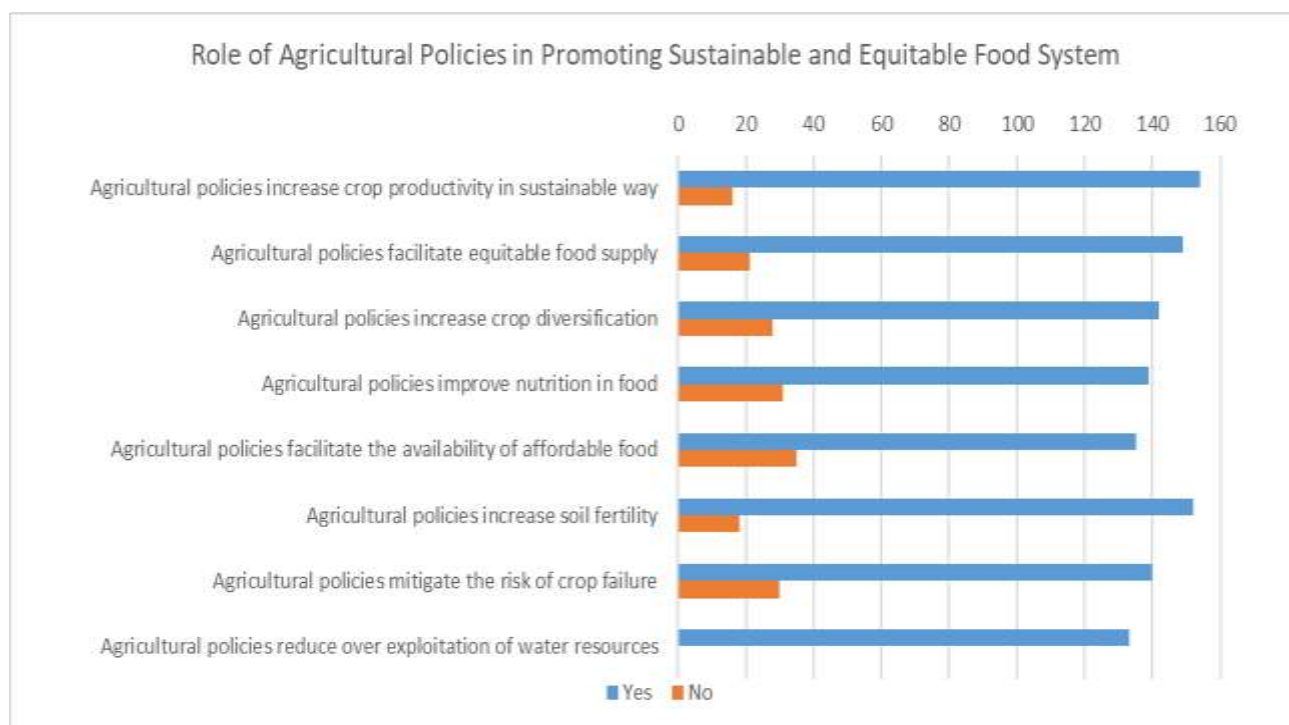


Figure 1 Role of Agricultural Policies in Promoting Sustainable and Equitable Food System

Table and Figure 1 show the role of agricultural policies in promoting sustainable and equitable food system. It was found that 90.59% respondents agree that agricultural policies increase crop productivity in sustainable way, while 89.41 % respondents agree that Agricultural policies increases soil fertility. 87.65 respondents agree that agricultural policies facilitate equitable food supply, while 83.53 % respondents agree that agricultural policies increase crop diversification. 82.35 % respondents agree that agricultural policies mitigate the risk of crop failure, while 81.76% respondents agree that agricultural policies improve nutrition in food. 79.41% respondents agree that agricultural policies facilitate the availability of affordable food while 78.24% respondents agree that agricultural policies reduce over exploitation of water resources.

Conclusion

Today's food system is dealing with a number of difficulties. The need to create environmentally friendly production methods reduces their effects on the environment, and guarantee nutrient-dense food is becoming more and more pressing. Also, an increasingly uneven food system is being caused by increased prices, unequal access to resources, and climate change. Agriculture policies are crucial for addressing these problems. Government sponsored programs known as agricultural policies aim to reshape the food system in a way that benefits both farmers and consumers. Programs and legislation that have an impact on how food and agricultural goods are produced, distributed, and consumed may be among them. From affecting market pricing to fostering sustainable agriculture and food security, these policies have the potential to significantly affect the food system. Governments have the chance to develop a more just and sustainable food system by utilizing the power of agriculture policy. Policy may be utilized to help farmers, expand access to wholesome food, and solve environmental issues. Also, the correct regulations may assist to decrease food waste, improve food security, and guarantee that everyone has access to a nutritious diet. In the end, agricultural policy may significantly contribute to the development of a more just and sustainable food system. Governments can guarantee that everyone has access to wholesome, secure, and inexpensive food by comprehending the power of these policies and using them effectively. The demand for a just and sustainable food system is increasing as the world's population expands. Although agricultural policies have long been a cornerstone of the food system, they are only now starting to fully fulfill their potential to advance fairness and sustainability. A just and sustainable food system offers several advantages. To begin with, such a system can contribute to ensuring that everyone has access to wholesome and reasonably priced food. This is crucial in emerging nations where food insecurity and poverty are still widespread. These nations can guarantee that their populations have access to the food they need to lead healthy, fruitful lives by putting in place a sustainable and equitable food system.

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