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THE BENEFITS AND DRAWBACKS OF ORGANIC FARMING

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Abstract
For more than a thousand years, agriculture has supported the majority of Indians and their standard of living. Organic farming is a term that emerged in the 20th century, encouraging farmers to raise and harvest a wide variety of plants and animals without resorting to synthetic fertilizers and pesticides. The current study examines the financial repercussions of organic farming. This would let chemical farmers weigh the benefits of becoming organic before making the switch. The final price of each crop to the consumer would reflect the whole cost of production. Insight into the difficulties organic farmers encounter may help academics and politicians improve organic farming's public image and persuade more farmers to switch to the practice. In the current context, organic farming presents a compelling option. Organic farming is practiced by a minority in the state, mostly due to concerns about soil health and human health. The economic advantages and expenses of farming, the difficulties faced by organic farmers, and the social standing of farmers are all the subjects of this investigation.
Keywords: Organic Farming, Benefit, Drawback, Farmer, Economy

INTRODUCTION

Organic farming is a kind of agriculture that uses less harmful chemicals and resources to grow food. Organic farms strive to match the quality and production of conventional farms while using practices that are safer for the environment. In contrast to conventional farming, which might include massive harvests, organic farming often involves much smaller yields. Pure organic farming and integrated organic farming are the two main categories of organic agriculture. Organic farming is a hotly debated issue, which is itself interesting. There are two schools of thought on the topic of organic food production: those who feel it is the safest and healthiest option for the future of our food supply, and others who are certain that it is not. We will discuss the pros and cons of organic farming in this essay. Maintaining the health of the soil and the natural ecological balance is important to organic agricultural practices. It doesn't need potentially harmful inputs (such fertilizers, pesticides, etc.) and instead depends on the local natural conditions of its surrounds. Organic farming is a production strategy that helps both humans and the environment by using both established practices and cutting-edge research. It's a cutting-edge method that employs green farming practices to cut down on waste and pollution. The International Federation of Organic Agriculture Movements (IFOAM) was founded in 1972 and has members from all around the globe. Organic farming is a movement started by the International Federation of Organic Agriculture Movements (IFOAM) to reduce human and environmental exposure to harmful synthetic chemicals used in conventional farming.

Organic farming is a term that emerged in the 20th century, encouraging farmers to raise and harvest a wide variety of plants and animals without resorting to synthetic fertilizers and pesticides. It is well acknowledged that research and innovation play a crucial role in filling the current scientific voids in organic production, administration, and marketing. The effective interplay between originality and plurality in the viewpoints of researchers and farmers, social networks, and institutions is essential to the application of innovative processes and technology in organic production. That's why it's crucial for organic farmers and the organic sector as a whole to foster a culture of focused knowledge and communication, always alert to new ideas and imaginative techniques. Organic agriculture has a multiplicative effect on society, improving the well-being of consumers, the environment, and the economy. At this time, India produces more organic food than any other country.

LITERATURE REVIEW

Elayaraja, Mr&Vijai, C. (2020) As individuals learn more about what they and their loved ones put into their bodies, there is a growing emphasis on health advantages. Thus, there is a need for items that have evolved from organic farming. In the past, individuals often spent their money on fresh,

locally grown produce, meat, and organic goods. Because of this, people are living longer and healthier lives. This study discusses the history, current practices, and future prospects of organic farming in India.

Singh, Vikash &Sasode, D & Patel, Rajendra & Bagri, Uma Shankar & Bagri, Pankaj. (2021) Soil microfauna, such as bacteria, fungus, worms, and termites, flourish in the organically-cultivated "Living Soil" that results. Organic farming is a kind of farming that uses organic wastes (crop leftovers, animal and farm wastes, aquatic wastes) and other biological elements to develop land and raise crops in a way that keeps the soil alive and healthy.

Datta, Debajit&Mazumder, Shrabana. (2018) Worldwide agricultural production has been greatly increased as a result of broad commercialization of agriculture, but this increase has come at the expense of the environment. As a result, there is a massive accumulation of chemicals all throughout the world, even in people's bodies, because of the widespread use of chemical pesticides and fertilizers. Organic farming is an alternative agricultural approach that has the ability to meet the growing demand for food while also protecting consumers from possible health hazards. Organic farming encompasses a wide range of practices that employ sustainable local resources in lieu of synthetic chemical fertilizers and pesticides. Organic farming is nothing new in India; in fact, it has been practiced there since ancient times. This persisted until the early 1970s, when chemical fertilizer and HYV-based modern agriculture methods, brought on by the Green Revolution, eradicated these traditional agroecosystems. People used to not care as much about what they ate, but that has changed in recent years. Farmers, NGOs, and commercial organizations in rural and urban regions are responding to rising demand for organic goods by boosting their output of the same. A small number of organic stores and farms in and around Kolkata are interviewed to provide light on the state of organic agriculture in the Kolkata Metropolitan Area. The research also looked at the organic farms' SWOT (strengths, weaknesses, opportunities, and threats) in the context of the contemporary political system. It was concluded that for organic farming and organic goods to thrive in the city, a shift in the orientation in outlooks of government, farmers, and urban mass consumers is required.

Alaguraja, Mr.M& Kumar, Arul &Nedumaran, Dr &M.Manida, Dr & Karan, V.Praba. (2020) Developing nations' agricultural development strategy should prioritize maximizing crop yields on arable land while minimizing negative impacts on people and the environment. This research aims to synthesize a variety of concerns in the context of current trends about the challenges and potential of organic farming in the Indian state of Tamil Nadu. To reduce Land corruption and mistreatment of information sources, the development of a reliable soil-plant condition framework is crucial. Changing the current frameworks of farming in the area of soil supplement rebuilding to enable the utilization of natural resources is another approach to promoting eco-friendly farming. An effective tactic for national development is a focus on domestic spheres. Improvements in farming, monetary and social systems, fair salaries, and housing for the homeless are only a few examples. Other areas include urban planning, wealth creation, education, practical experience, and networking. Regional development is the process of bettering our home in order to raise the standard of living for the majority of the population.

Kumar D, Krishna &Misra, Sheelan&Gurusamy, M. (2021) One popular strategy for mitigating chemical farming's negative impacts is organic farming. The past three decades have seen an increasing lack of sustainability in India's agricultural sector. The system has skewed towards high productivity without much regard for the environment or the very existence of the person. Organic farming is a kind of agriculture that makes use of natural methods, such as composting and the use of animal or plant byproducts as fertilizers and pesticides. The environmental damage caused by chemical and synthetic fertilizers inspired the creation of organic farming. This implies that organic farming is a cutting-edge farming method that actively works to improve environmental conditions. The article focuses on supporting evidence. The literature, websites, and historical trends of organic farming, as well as its development in India and throughout the world, were analyzed. The International Federation of Organic Farming Movements used a wide range of sources to compile this content. Experts in agriculture, consumers, industry intermediaries, non-governmental organizations (NGOs), and farmers were all consulted. Organic goods are seeing a surge in popularity. Growing the market for organic products is essential to boosting sales at home. The supply falls short of the country's need for organic goods, and insufficient connections have been made.

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ADVANTAGES AND DISADVANTAGES OF ORGANIC FARMING

Some benefits of organic farming include the following:

- **No Genetically modified organisms:** While GMOs may cause concern for some, organic farmers never have to worry about using them in their crops. These farms take great care to limit or eliminate contact with the outside world. There is less potential for contamination, mutation, or loss of crop output thanks to organic farming's more natural approach to food production.
- Soil health is preserved because organic farmers adopt techniques that eliminate the need for harmful chemical fertilizers and pesticides. As a result of their efforts, ecosystems are strengthened and erosion is reduced. Because they don't utilize toxic pesticides, organic farmers have less of an effect on the environment than their conventional counterparts.
- **More nutritious food:** By maintaining naturally rich soil, organic farmers may produce healthier food without resorting to synthetic fertilizers. Calcium, phosphorus, iron, and magnesium are just some of the nutrients that may be produced naturally using these techniques. By providing their livestock with nutritious food rather than antibiotics, organic farms are able to ensure humane treatment of the animals they grow.
- **Safer and healthier work environment:** When you're surrounded by sick people all the time, it's nice to know that you can work in an organic farm where everyone's health is prioritized. Pesticide exposure is lower among organic farmers, and they use less potentially hazardous chemicals to tend to their fields and harvest their produce.
- **Increased resistance to pests and disease:** Because they are normally maintained without the use of pesticides, herbicides, and synthetic fertilizers, organic farms are resistant to pests, weeds, and illnesses. Organic farmers' production expenses are going down because of the rise in pest resistance.
- **Fertilisers are made naturally and on site:** Organic fertilizers, which are produced locally and with the use of organic materials, are known for their ability to enhance crops without causing any harm to the plants. This kind of farming is beneficial for the planet and for those who wish to improve their nutrition or have a greater impact on the world.
- **Can grow more variety of crops:** Grow a wider range of crops in less time using organic farming techniques including crop rotation, composting, and animal breeding that boost land productivity without the use of synthetic fertilizers or pesticides.
- **Climate-friendly and easier on the environment:** Organic farming is 25% more climate-friendly and gentler on the environment than conventional farming since it uses 25% less water and produces 25% less carbon dioxide emissions. The natural ecology, animals, and plants all benefit from the organic farm's ability to produce in a wider variety of environmentally benign methods.
- **Sustainable:** Organic farming is more future-proof than conventional farming since it reduces environmental damage and uses fewer resources. Sustainable farming methods used by organic farmers include crop rotation, the use of animals to recycle weeds into fertile soil and cover crops, and the use of little or no synthetic pesticides and fertilizers.

Disadvantages of organic farming

While organic farming has many positive effects on human and environmental health, it is not without drawbacks. These issues are among the most significant ones associated with organic processes.

- The cost of food is more than it would be if conventional agricultural practices were used, which is a key drawback of organic farming.
- Organic farming has a higher production cost since it needs more laborers. Since output and distribution are both lower than in traditional farming, we can also say that its marketing is ineffective.
- The majority of organic farmers do not get any government subsidies. Risks associated with organic methods, such as adverse weather or crop failure, will always remain high unless they are subsidized.
- **Inadequate knowledge & skills:** Organic farmers need to have a firm grasp of regional soil systems, climate & weather patterns, ecological considerations, and other elements that affect

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crop yields. An individual organic farmer will not be able to safeguard his crop through potentially disastrous phases of cultivation if he is unprepared.

- Illnesses that spread quickly between plants may significantly reduce output, and the crop suffers from this vulnerability. Organic foods spoil more quickly than their non-organic counterparts. Because, unlike traditional techniques, we don't add waxes or preservatives to the organic food ingredients to make them last longer in storage.
- Because of its low output, organic farming cannot meet the world's food needs. It might cause widespread famine even in areas where there is enough food to go around.
- Organic farms are required to go through a stringent certification process. There is a minimum certification fee involved. Maintaining organic standards is required. An organic farm might suffer repercussions for failing to achieve these requirements. Since it reduces harmful emissions, organic farming is preferable for the planet. At the same time, it shields us from the dangers of the pesticides often employed in agriculture.
- Organic foods are superior in nutritional value since they are cultivated with only organic, non-artificial means. It not only helps us stay healthy by providing essential elements like vitamins, minerals, proteins, fibers, etc., but it also keeps the planet habitable.

RESEARCH METHODOLOGY

Research design

Source of information for organic farming, factors affecting for conversion to organic farming, advantages of organic farming, marketing channel, internet use, and yield pattern of organic crops were developed variables to help understand the mindset of organic farmers. Twenty organic farmers were chosen from each of the four blocks, for a total of eighty participants.

Method of Data Collection

The research employed a multistage proportional sampling technique, with the universe consisting of 670 organic farmers in 15 districts of Punjab drawn from a list compiled by Punjab Agro Industries Corporation Limited. Organic farmers were distributed as follows: 15.93% in Fatehgarh; 13.75& in Patiala; 15.16& in Gurdaspur; 25& in Sangrur. Basmati rice, non-basmati rice, sugarcane, moong, wheat, gram, and mustard are only few of the crops studied.

Analytical Techniques

Data analysis included the use of both descriptive and inferential statistics, as well as econometric models. The collected data on organic and chemical farmers' socioeconomic parameters, farm characteristics, organic farmers' attitudes, cost benefit analysis, and constraints faced by the sampled organic farmers, was analyzed using descriptive statistics such as mean, frequency, percentage, and standard deviation. Statistical analyses were conducted using the Chi-square (χ^2), Mann Whitney, and Friedman rank sum tests.

DATA ANALYSIS

Environmental Gains Seen on the Farm After Conversion to Organic Agriculture

Positive Effects on the Farm's Environment 80 percent of farmers who switched to organic farming reported seeing more beneficial insects, 78 percent saw healthier plants, 77 percent saw an overall uptick in bird species, 70 percent saw less water pollution, 66 percent saw more bird life, and 61 percent breathed easier.

Table 1: Observed Environmental Benefits on the Farm by Organic Farmers after Conversion

		Frequency
Generalincreaseinbird species	Yes	77
Moregeneralincreaseinbirdlife	Yes	66
Betterplanthealth	Yes	78
Lesswaterpollution	Yes	70
Morefriendlyinsects	Yes	80
Goodsoilhealth/soil fertility	Yes	80
Cleanair	Yes	61

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Total	80

Source: Field Survey (2018)

The Analysis of Contributing Factors the Outcomes of Organic Farmers' Challenges

Eighty percent of organic farmers said they got into the industry for health reasons, with soil health coming in second at 63%, then a temporary lifestyle change (39%), financial gain (10%), and finally any type of subsidy (10%). As can be seen in table 2, all three farmers opted for the third choice, which provided free land certification.

Table 2: Factors Influencing Organic Farmers for Conversion

		Frequency
Farmhealthmotive (soilhealth)	Yes	63
Personalhealthmotive	Yes	80
Profitmotive	Yes	33
Temporaryshift forexperiment	Yes	39
Attracted byanysubsidyoffered	Yes	13
Total		80

Source: Field Survey (2018)

The Challenges Organic Farmers Face: A Factor Analysis

On 18 components, we used varimax rotation for a Principal Axis Factor Analysis. All item-level KMO values were larger than 0.692 (anti-image correlation), which is significantly over the permitted limit of 0.5, as shown in table 3 using the Kaiser-Meyer-Olkin measure, which confirmed the sampling adequacy for the study. Eigen values for each other in the data were obtained from an initial analysis. There were only four components whose Eigen values were greater than 1, meeting Kaiser's criterion for explanatory power. After rotation, factor loadings are shown in Table 4. Factor 1 is likely to indicate economic restrictions, factor 2 marketing constraints, factor 3 R&D constraints, and factor 4 an input constraint, based on the items that cluster together on the same factor. Cronbach's =0.947, 0.977, 0.985, and 0.990 were used to test the reliability of the economic, marketing, research and development, and factor input constraints, and they were all found to have good reliability.

Table 3: KMO And Bartlett's Test Results of Constraints Faced by Organic Farmers

Kaiser-Meyer-OlkinMeasureofSamplingAdequacy.		0.803
Bartlett'sTestofSphericity	Approx.Chi-Square	3285.522
	df	153
	Sig.	0.000

Source:Authors Own Calculation

Table4:RotatedComponentMatrix

Constraints	**Component**			
	Factorinput constraint	**Researchand Development constraint**	**Marketing constraint**	**Economic constraints**
Qualityoforganicseedfrommarketisinferior	0.991			
Bio-pesticidesforalltheproblemsareavailableinthemarket	0.983			
Lackofbio-massinnearbyarea	0.981			
Difficultyinfindingbio-pesticidefrommarket	0.965			
Skilledlabourisnotavailablefor OF	0.964			
lengthycertificationprocess		0.975		

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Inadequateresearchsupport		0.969		
Nofinancialsupportbygovernment		0.966		
Lackofspecializedinstitutesfordoingresearchonorganicfarming		0.965		
Nogovernmentagencyforguidanceof OF		0.960		
Findingmarketfororganicproductsisa majorissue			0.974	-0.168
Lackofspecializedorganicshops			0.959	-0.136
lackofstoragefacility			0.953	-0.202
Lowerproductpriceoforganic crop			0.909	-0.244
Higherdieselconsumptioninorganic			-0.208	0.935
Preparingorganicpesticideandinsecticideistough			-0.170	0.925
Increaseintotalcostofproduction			-0.178	0.903
Decreasein yield	0.105	0.107	-0.168	0.871
Eigenvalues	5.562	4.776	4.250	2.108
%ofvariance	31.40	26.536	23.614	11.710
α(Cronbach'salphareliabilitystat)	0.990	0.985	0.976	0.947
Source:Authorsowncalculation Extraction Method: Principal Component Analysis. RotationMethod:VarimaxwithKaiserNormalization. a.Rotationconvergedin5iterations.				

KMO and bartlett's test resulted in a further categorization of limitations into four classes. First, there is a lack of bio-mass in the area, it can be hard to track down bio-pesticides on the market, and skilled labor is scarce for organic farming. Additionally, the quality of organic seed from the market is inferior, and bio pesticides for all the problems are available. Time-consuming certification procedures, insufficient funding for research, a lack of specialized institutions for organic farming research, and the absence of a government body dedicated to organic farming all fall under the second category of research and development constraints. There are fewer places to sell organic products, fewer places to store them, and a lower product price for organic crops, all of which fall under the third category of marketing constraints: finding a market. Lower yields, greater production costs, more time and effort required to prepare organic pesticides and insecticides, and increased fuel use all fall under the fourth category of economic constraints.

CONCLUSION

Organic farming is becoming more popular as consumers become more concerned about the safety of the food they eat. India has the biggest concentration of organic farmers anywhere, and its domestic market is expanding at an unprecedented rate, making it an attractive export destination. An organic action plan should be developed to help farmers boost their incomes while also preserving the environment from the rising costs of conventional farming inputs. According to the results of the study, organic farming has lower cultivation costs, however the calculation of the efficiency score revealed inefficiencies in crop production in organic farming, where farmers may further reduce input costs while maintaining the same output. Since organic farmers already spend more money on inputs than they need to, further study into organic agriculture technology is required. There is a lot of room for growth in this industry, since organic farming of all crops uses more human labor overall. The economic and social situations of organic farmers are better than those of conventional farmers due to the advantages of organic farming. This supports the idea that both the government and non-governmental groups should step up their funding for basic research.

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