

Possibility of organic farming in Bihar

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Abstract - A target has been set to make the Indian economy 5 trillion in the budget 2019 to 2020. India has been an agricultural country in which the target of \$ 5 trillion cannot be achieved without proper development of agriculture and environment friendly agriculture in the gangetic plains. Organic agriculture may be a better option in the plains of Bihar, which should be seen as an aspect related to sustainable and sustainable agricultural development.

keywords - Organic Farming, agro climate , climate change , soil , nutrients

I. OBJECTIVE

The main goal of the study is to study the immense potential of organic farming in the form of sustainable agriculture development in Bihar. Through this article, farmers will be able to become aware of organic farming. As a result you will be attracted to organic farming as well as be able to use it. Some of the main points related to this are as follows. Maintaining soil health producing high quality food grains in sufficient quantity.

1. To maintain and increase long-term fertility of soil.
2. To encourage and enhance the biological cycle for microorganisms, soil and other organisms in the farm.
3. Prevent the side effects of chemical fertilizers and chemical medicines.
4. To maintain genetic agricultural diversity in and around the farming system.

II. DATA BASE

The northern state of India comes twelfth in the state of Bihar with 94,163 square kilometres of area. Agriculture and Agriculture related activities are done on 18.9 % of the total area of Bihar according to the Niti Aayog study, agricultural growth in the state between 2010 and 2014 was 3.7 % most of the marginal farmers here have less than 1 hectare of holding land. Fruits and vegetables are widely produced in Bihar. Bihar is a famous state for Banana, Litchi and mango production. The farmers here mainly rely on monsoon for irrigation.

III. INTRODUCTION

Organic farming is commonly associated with the "return to nature" practice. In general terms, organic farming abstinence from chemical fertilizers and pesticides, and in this, efforts are made to increase soil fertility by mixing food and Sewage, food plant residues, food processing waste etc. In the soil. The diverse agro-climatic and geographical conditions of Bihar are specialities here. The region has a rich agricultural climate, the region is endowed with diverse topography and agro-climatic conditions, which indicates abundant potential for agricultural, horticulture and forestry. Bihar is mainly divided into three Agro climatic zone

1. North Eastern alluvial region.
2. Northwest alluvial region.
3. South Bihar alluvial zone.

Most of the population here is dependent on agriculture, whose per capita income is ₹ 43,822 average per capita income is highest in Munger.

The full potential of organic farming in Bihar cannot be exploited until organic farming is practised in groups or on community basis. In the present form, organic Residue is used here is an unorganised and more unplanned manner. As a result, farmers do not get proper agricultural benefits. Organically compost producing companies and investors have been lacking in Bihar. Suppliers of high quality Organics goods will require reliable and regular supply of organic goods, especially vegetables for their food. However, the trustworthiness of supply and materials is a major problem for most small and marginal farmers, because it is difficult to meet the requirements of individual established buyers.

Most of the agricultural production of Bihar is a small-scale producer. Here agricultural producer organisations will have to be developed and concrete Initiatives will have to be taken in this direction in coordination with farmers. Small-scale farmers and rural communities are under a cycle of low margin equilibrium. This results in less risk-taking ability and less investment leading to lower productivity, lower market conditions and lower value. To participate in developed markets after globalisation, marginalized small and marginal farmers. There is a need to unite and adjust in a new environment to escape.

1. SOIL OF BIHAR

In the vast Central Plains of Bihar, even after the soil is formed from Alluvial soil, it has regional features in the media of North Bihar, bringing sand marks and depositing it, which differ in quality. The soil of Bihar is mainly classified into three parts: -

1. Hill Soil: - It is mainly found in Northwestern part of West Champaran.
2. Terai alluvial soil: - It is found in the border district near North Bihar and Nepal.
3. Ganga alluvial soil :- it is found in the gangetic plains in Bihar.

2. CLIMATE CHANGE OF BIHAR

Bihar comes under subtropical climatic zone. The climate here is, seasonal, variable with change. The elements of climate are local variation in rainfall, temperature, humidity and wind. Temperatures are low in Northern parts, In the southern part, the excess heat is related to the proximity of the Tropic of Cancer and the influence of the plateau. Bihar has also seen the effects of climate change. Due to irregularity in rainfall, both the flood and the outbreak also affects the crop cycle here.

Three types of farming practices are mainly used in Bihar. Kharif, Rabi and Zayed. Apart from this, these crops are selected according to the climate of different regions, for example Bihar receives the most rainfall from the Southwest monsoon. Whose time period is June to September. And that's why paddy is cultivated in this season.

Chemical fertilizers are used on large scales in most crop production in the region. The soil and air quality is deteriorating due to frequent application of insecticide and pesticides. Here the residual material obtained from animals is used to increase the quality of soil. There is a need in entire Bihar to properly manage rural waste and organic waste and use it as agricultural food and compost. Soil acidity can be managed by Sourcing selected stones from the North-East. Soil and water conservation measures rainwater harvesting, conservation tillage method etc. can prove effective to Nourish soil health for sustainable bio-fertilizer production.

IV. STATUS AND POTENTIAL OF ORGANIC FARMING IN BIHAR

Soil quality and climatic conditions are favourable for organic farming and there is immense potential. Bihar can exchange many methods for organic farming from Sikkim. It is to be known that Sikkim has been declared a full organic state in 2015 itself. The Department of Agriculture of the Centre and States and its related units can take good initiative in this direction. These units should form policy for organic farming and establish contact with the farmers for its implementation. Agricultural implements that promote modern agriculture should be encouraged. Using Information Technology, the farmers will have to deal with the conditions of the climatic directions, so that he can plan for the minimum application of perakhnashi and kitnashi.

Organic farming can prove to be a boon for Bihar as investment in farming is done at minimum scale. In this process more profit is earned from lower input cost, which will attract the small and marginal farmers of the place. Due to excess rainfall in the region, there is a possibility of producing biomass which can be used as Valuable source of organic nutrients for sustainable crop production. Poverty can also be eradicated by maximizing production of fruits and vegetables by promoting planned agriculture. Organic farming here will not only keep the climatic conditions even, but will also remove the ill effects on the health of chemical substances. Nutritional security will also be encouraged by using various agricultural crops. There is a lot of potential for expansion of horticultural crops to maximize yield under organic production systems. Vegetables based small scale industries can also be promoted. Vegetables can be stored for a long time by setting up food processing and cold storage units. This kind of remedy will boost employment, which will lead to economic progress of the state.

Rice and coarse grains are also cultivated in Bihar. The use of organic farming will boost Rice production and improve its nutritional quality, there is scope for dairy processing and quality processing as well and the residuals obtained from it can be used to make compost.

IV. ORGANIC FARMING TO INCREASE FARMER'S INCOME

The real potential of organic farming in Bihar is also due to the poor farmers here. Most of the producers here are of small scale, hence the proper size of holdings is not available to provide sufficient quantity of surplus for the offer of marketing within and outside the region. Timely availability of biological inputs in these areas is awaiting proper guidance for government agencies and policymakers. There is a little bit of uncertainty about the application of biological input, whether this system will be able to provide complete nutritional value for soil health? In such circumstances, the government must assess the nutrients found in organic compost and instill confidence among farmers that the quality of soil will be maintained by its use. In this context, the following strategies can be considered: -

1. Farmers using different types of organic fertilizers such as bio-fertilizer, vermi-compost, cow dung, compost, etc. For nutritional management for organic farming will lead to higher crop production without any decline in soil productivity, thereby increasing income.
2. Organic fertilizer is prepared scientifically in laboratories by selecting beneficial microorganisms from soil. When making biofertilizer the number of beneficial bacteria can be more or less than a million in 1 gram. These are azotobacter, Rhizobium, Blue-green algae.
3. The use of biofertilizer such as vermicompost, green compost and oil cakes provides all the nutrients of the soil, leading to high production of the crop.
4. For organic farming, the most important task is to select the appropriate seeds, for this, farmers can purchase seeds from reliable or government institutions. For example, farmers can also buy and contact Rajendra Prasad Central Agricultural University, Pusa, Samastipur and get other suggestions.

5. Farmers also need to undergo training for organic farming. The number of Agricultural Training Centres in Bihar is not large and it is also far from the rich of farmers. The Bihar government will have to come forward in this direction and develop agricultural training centres.

VI. HEALTH AND ENVIRONMENTAL BENEFITS OF ORGANIC FARMING

According to the World of Organic Agriculture Report 2018, India has come on top in the number of organic producers in the world. Despite this, the expansion of organic farming in India is uneven from the regional point of view. The level of organic farming in the eastern state of India is satisfactory but much work remains to be done in the direction of organic farming in the Northern States, especially Bihar and Uttar Pradesh. Population expansion in the Northern states is unbalanced which increases pressure on land and environment. Organic farming can be an option to correct such environmental imbalances. According to a survey conducted by the scientists of Hisar Agricultural University, the amount of chemical pollution in grains, vegetables, milk etc. has reached alarming levels. Organic farming and its products can control such pollutants to a great extent.

In organic farming, the use of locally compatible systems is preferred under regional conditions. The Organic food taste better than traditional food. They also have high nutritional quality retaining properties. Studies investigating the effects of organic food on human health have shown that regular intake of organic food can reduce the risk of childhood allergies, weight gain, obesity, and certain types of cancer.

The application of organic farming preserves the environment and biodiversity. Along with reducing the risk of Water pollution, the demand for artificial fertilizers decreases, which maintains the balance of the situation.

VII. CONCLUSION

Appropriate studies conclude that in the 21st century, organic farming may be an alternative method to balance growing population pressures, health and environmental problems, shrinkage land resources and demand for growing nutritious foods. Especially in the context of Bihar, it is even more appropriate as most of the population here is dependent on agriculture. People of Bihar also have low income. As a result, they are unable to fulfill basic facilities for better life. Organic farming will increase the income of people here, which will raise the standard of living.

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