

ORGANIC FARMING IN J&K:

STATUS AND SCOPE

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INTRODUCTION

Organic farming is an agricultural system that prioritizes ecological balance by avoiding synthetic inputs like fertilizers, pesticides, and genetically modified organisms (GMOs) [1]. It emphasizes practices that maintain soil health, promote biodiversity and create a self-sustaining ecosystem. This approach fosters sustainable agriculture which seeks to satisfy current food demands without endangering the capacity of coming generations to satisfy their own [2].

Organic farming is a holistic agricultural approach that prioritizes the use of natural inputs and techniques while es-

chewing synthetic fertilizers, pesticides and genetically modified organisms [3]. It emphasizes soil health, biodiversity conservation, and ecosystem resilience thereby promoting sustainable agriculture. Organic farming techniques includes crop rotation, composting, biological pest control and the use of organic inputs such as manure and organic amendments.

Overview of agriculture in J&K:

Agriculture forms the backbone of Jammu and Kashmir's (J&K) economy, directly or indirectly supporting a significant portion of the rural population (around 80%) [4]. The diverse agro-cli-



matic zones, ranging from sub-tropical in Jammu to temperate in Kashmir and cold desert in Ladakh, allow for a wide variety of crops to be cultivated [5].

Economic importance:

The agriculture sector in J&K makes a significant contribution to the GDP, with an approximate share of 27% [6]. It provides not only food security but also raw materials for agro-based industries, generating income and employment opportunities in the region [7].

The importance of agriculture in the economy of J&K cannot be overstated. It serves as the main source of income for a large portion of the population especially in rural areas where agriculture provides employment and income opportunities. Furthermore, agriculture contributes significantly to the state's GDP, accounting for a substantial share of total economic output.

Status of organic farming in J&K

While J&K holds immense potential for

organic farming, the current area under certified organic cultivation remains modest.

Area under organic farming:

Official statistics from (APEDA) show a certified organic area of approximately 22,316 hectares in J&K as of 2022 [8].

However, reports suggest that a significant portion of land, particularly in the hilly districts like Rajouri, Poonch, Kishtwar, Doda, Udhampur, Kathua, and Jammu, is already under semi-organic cultivation due to limited access to chemical fertilizers [9]. This traditional practice, often involving crop rotation and natural pest control aligns with some core principles of organic farming.

Using organic farming methods in Jammu and Kashmir (J&K) is gradually increasing in recent years, albeit from a relatively low base. According to statistics from the Department of Agriculture, J&K, approximately 10% of the total agricultural land in the region is under organic cultivation,

with a growing number of farmers transitioning to organic methods (Department of Agriculture, Jammu and Kashmir). This indicates a positive trend towards the adoption of sustainable agricultural practices in the region.

Table 1: Area-wise Table of Vegetables and Crops under Organic Farming:

District area under Organic Farming (in hectares)	
Srinagar	500
Baramulla	300
Anantnag	250
Pulwama	200
Kulgam	150
Shopian	100
Bandipora	80
Kupwara	70
Ganderbal	50
Udhampur	30
Kathua	20
Doda	15
Rajouri	10

(Source: Department of Agriculture, Jammu and Kashmir, 2023) [10]

Government Initiatives:

The J&K government has acknowledged the potential of organic farming

and has initiated various programmes to promote its adoption:

- Schemes: Programs like “Adoption and certification of organic farming” and those under the National Vegetable Mission and Horticulture Technology Mission provide financial assistance and technical support to farmers transitioning to organic practices [11].
- Mission for Organic Value Chains in North East Region (MOVC NER): Though focused on the North Eastern states, this centrally sponsored scheme offers a framework for developing organic production, processing, certification and marketing infrastructure, which could be adapted for J&K [12].

Benefits of Organic Farming:

Organic farming offers a myriad of benefits across environmental, economic



and health dimensions, making it a sustainable agricultural practice with far-reaching positive impacts.

From an environmental standpoint, organic agriculture plays a significant role in addressing climate change by lowering greenhouse gas emissions. Avoidance of synthetic fertilizers and pesticides, organic farming effectively diminishes the release of carbon dioxide and other detrimental gases linked with the manufacturing and utilization of chemical inputs. Additionally, organic farming techniques such as crop rotation, cover cropping and composting improve soil organic matter which aids in the retention of carbon within the soil, consequently assisting in the reduction of atmospheric carbon levels [13].

In terms of biodiversity conservation, organic farming plays a crucial role in preserving and enhancing the health of ecosystem by avoiding the use of chemical pesticides and fertilizers that can harm beneficial insects, birds and soil microorganisms, organic farms create

habitats that support a diverse array of plant and animal species. Additionally, organic farming encourages the preservation of traditional crop varieties and indigenous breeds, contributing to genetic diversity and resilience in agricultural ecosystems [14].

Moreover, organic farming advances soil well-being and productivity by implementing techniques such as crop rotation, intercropping and the application of organic amendments by maintaining soil structure and microbial diversity, organic farms improve water infiltration, reduce soil erosion and enhance nutrient cycling resulting in healthier and more resilient soils that can sustain productivity over the long term [15].

In addition to its environmental benefits, organic farming offers economic advantages for farmers, including premium prices for organic products and reduced input costs over time. Organic produce commands higher prices in the market due to consumer demand for safe and healthy food produced in an environ-

mentally friendly manner. Moreover, by relying on natural inputs and practices that promote self-sufficiency and resilience, organic farmers can reduce their dependence on expensive external inputs such as chemical fertilizers and pesticides, thereby improving their profitability and financial stability [16].

Opportunities:

- Abundant natural resources and diverse agro-climatic conditions
- Growing demand for organic produce
- Potential integration with the tourism sector
- Government support and initiatives

Challenges:

- Limited access to organic inputs
- Certification complexities
- Marketing barriers
- Transitioning from conventional to organic farming

Future Prospects and Recommendations:

- **Policy Support and Incentives:** Formulate supportive policies and provide incentives for organic farming adoption.
- **Capacity Building and Training:** Invest in farmer education and training programs to equip them with necessary skills.
- **Infrastructure Development:** Develop infrastructure for organic certification, processing, and marketing.
- **Market Diversification:** Explore opportunities to diversify organic produce and tap into niche markets.
- **Research and Innovation:** Invest in research and development initiatives to adapt organic farming techniques.
- **Promotion and Awareness:** Launch comprehensive awareness campaigns to educate consumers about organic benefits.

- **Inclusive Approach:** Ensure inclusion of smallholder farmers and marginalized communities in organic initiatives.

Conclusion:

In conclusion, this article has shed light on the status, scope, challenges, and opportunities of organic farming in Jammu and Kashmir (J&K). We began by defining organic farming and highlighting its significance in promoting sustainable agriculture, emphasizing its potential to mitigate climate change, conserve biodiversity and improve soil health.

Jammu and Kashmir possesses immense potential for organic farming, driven by its diverse agro-climatic zones and existing practices in some regions. While the current area under certified organic cultivation remains modest, a significant portion of land, particularly in the hilly districts, already adheres to semi-organic methods. Organic farming offers a multitude of benefits, promoting environmental well-being, economic

prosperity for farmers and improved consumer health.

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