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Study of Agricultural Patttern of Village Palpur, Itaunja Lucknow

Dr. Ritu Jain[1], Jahanvi Singh[2], Bhumi Tripathi[3]
[1]*Assistant professor,* [2,3]*Scholar National PG College*

Abstract: ***Agriculture in uttarpradesh in palpur village is the backbone of village economy , most of the people are depending on agriculture .Palpur is a village characterized by its unique agricultural practices , influenced by its geographical climate , and socio-economic conditions . Understanding these patterns is crucial for enhancing productivity and sustainability. Palpur is a small yet significant rural village situated in the Itaunja block of Lucknow district, in the northern Indian state of Uttar Pradesh. Nestled in the fertile plains of the Ganga-Gomti Doab, the village is predominantly agrarian, with a majority of the population engaged in farming and allied activities.Geographically, Palpur enjoys a strategic location close to National Highway 24 (NH-24), providing decent connectivity to Lucknow city, which is approximately 35–40 kilometers away. The village falls under a humid subtropical climate zone, characterized by hot summers, a monsoon season with ample rainfall, and cool winters – all of which create a favorable environment for diverse agricultural practices.Palpur is a classic example of a rural Indian village, where traditional practices blend with modern agricultural methods. The village has access to basic infrastructure like electricity, hand pumps, primary schools, and access roads, but still faces challenges in terms of healthcare, higher education, and market linkages.Over the years, Palpur has witnessed gradual socio-economic changes, driven by government schemes, migration, education, and exposure to urban influences. Despite challenges like small landholdings, erratic rainfall, and limited irrigation, the village remains a vital contributor to the local food economy through the cultivation of crops like rice, wheat, pulses, and vegetables.Understanding Palpur's agricultural patterns, land use, and rural lifestyle offers valuable insight into the broader dynamics of rural development in Uttar Pradesh.In palpur there are many crops grown by the mordern and traditional techniques .the major crops which are grown in area are like- wheat ,rice ,banana , potato etc. Palpur benefits from fertile soil and access to water resouces . The region experience humid subtropical climate which help in production in palpur and it help in increasing village economy the agriculture is primary activity of peoples in village. Cultivtion of banana and potato done on larger basis in village because of favorable soil and climate . The tubwells andcanal irrigation techniques of irrigation is strengths of production of crops. Mixed cropping is done in region there are many minor crop which are grown in the region and there are many chemical and fertilizers and pesticides used in the region , high –yield crop varieties for enhancing the quality of crops in the region . There are many families which are only engaged in agriculture. In the village we can see mostly farmer can use same sequence of crop from many years that is wheat ,rice , banana and vegetable , potato. There is farmer need to change this pattern.Crop rotation farmer practice to maintain soil health and reduce pests. Organic farming is an increasing trend in the region with some farmer adopting organic methods to improve sustainability and marketability. The agriculture pattern in palpur reflect a blend of traditional practices and modern challenges ,continued support for sustainable methods and improved market access is essential for the village agricultural resilience and growth. This integrated approach is vital for improving the productivity in the region and overall public health in village.***

Key words: Agriculture pattern ,Irrigation ,Health , Crop rotation , Economy.

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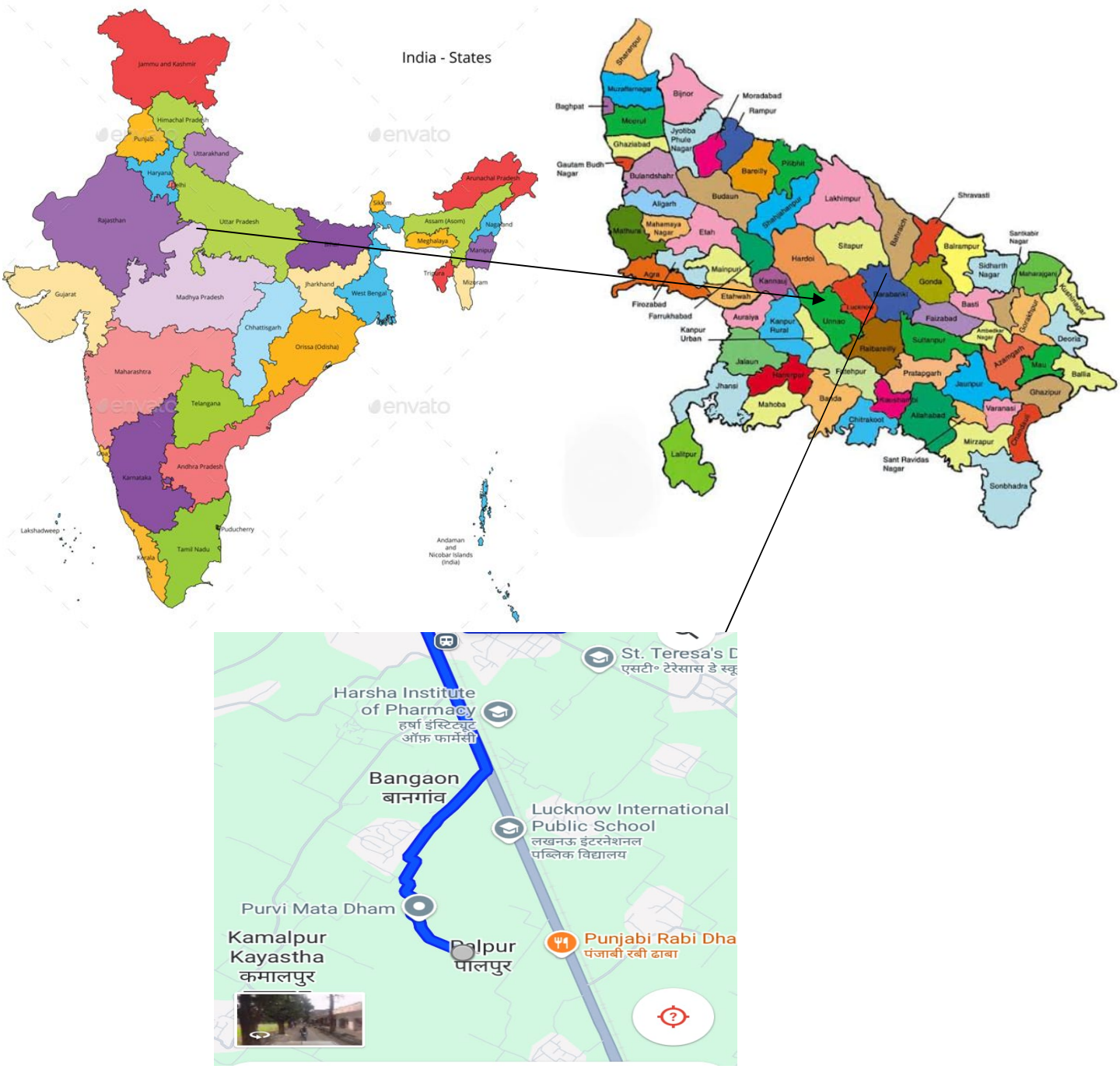
STUDY AREA



I. INTRODUCTION

Agriculture forms the backbone of the Indian rural economy, and Uttar Pradesh stands as one of the most agriculturally significant states in India. Within this broader context, the village of Palpur, located in Itaunja block of Lucknow district, provides a useful microcosm for studying the changing agricultural patterns in rural North India. The village, like many others in the Indo-Gangetic plains, relies heavily on agriculture as its primary source of livelihood. A study of Palpur's agricultural pattern reveals insights into crop diversification, landholding patterns, irrigation practices, and the impact of socio-economic changes on rural farming.

II. GEOGRAPHIC AND CLIMATIC OVERVIEW

Palpur lies in the northern part of Lucknow, falling within the Itaunja development block. The terrain is relatively flat and is part of the Ganga-Gomti Doab. The region enjoys a humid subtropical climate with hot summers, a monsoon season, and cool winters. The average annual rainfall is around 900-1000 mm, most of which occurs between June and September. The climate is well-suited for both kharif (monsoon) and rabi (winter) crops.

The soil in Palpur is primarily alluvial, rich in nutrients and ideal for cultivating a wide range of crops. The fertility of the soil and the availability of water from both rainfall and irrigation sources make the area agriculturally productive.

III. LAND USE AND OWNERSHIP PATTERNS

Agricultural land in Palpur is largely divided among small and marginal farmers. The average size of landholding is around 1 to 2 acres, with a few large landowners who possess up to 10 acres or more. Over time, land fragmentation due to inheritance laws has reduced the average size of landholdings, leading to challenges in mechanized and profitable farming.

Most of the land in Palpur is used for crop cultivation, with very little left for pasture or wasteland. Multi-cropping and crop rotation are commonly practiced to maintain soil fertility and ensure food security.

IV. MAJOR CROPS GROWN

The village follows a dual cropping pattern – Kharif and Rabi – with some farmers also engaging in Zaid cropping in summer.

1) *Kharif Season (June–October):*

- Paddy (rice): The dominant crop during the monsoon. Varieties like IR-64, Swarna, and Sharbati are cultivated.
- Maize and Arhar (pigeon pea): Grown in areas with relatively less water.
- Vegetables: Small farmers also grow vegetables like bottle gourd, lady finger, and pumpkin for household consumption and local markets.

2) *Rabi Season (October–March):*

- Wheat: The main winter crop. High-yielding varieties like HD-2967 and PBW-343 are preferred.
- Mustard: A popular cash crop, especially on less fertile land.
- Potatoes and Peas: Grown by progressive farmers for commercial sale.

3) *Zaid Season (March–June):*

- Watermelon, cucumber, and other short-duration crops are grown near water sources.

V. IRRIGATION FACILITIES

Despite decent rainfall, irrigation remains essential, especially for the rabi season. The primary sources of irrigation in Palpur include:

1) Tube wells and borewells: Common in areas where farmers can afford diesel or electricity.
2) Canal irrigation: A few farmers have access to canals sourced from nearby rivers, but canal maintenance and water distribution are often unreliable.
3) Traditional methods: Small ponds and tanks are used in emergency situations or for livestock.
4) Recent government schemes like PM-KUSUM have encouraged the use of solar-powered irrigation pumps, but adoption is still in early stages due to cost and awareness issues.

VI. USE OF FERTILIZERS AND PESTICIDES

Modern agricultural inputs like chemical fertilizers (urea, DAP, potash) and pesticides are widely used. However, there is limited understanding of balanced fertilizer application, which sometimes leads to soil degradation. A few progressive farmers have adopted organic or semi-organic farming practices, using vermicompost and bio-pesticides, often with support from NGOs or local Krishi Vigyan Kendras.

VII. AGRICULTURAL IMPLEMENTS AND MECHANIZATION

Mechanization is slowly gaining ground in Palpur, especially for operations like:

1) Ploughing: Tractor usage is common among medium and large farmers.
2) Threshing and harvesting: Threshers are hired during the harvest season.

3) Sowing: Seed drills are available but not widely used due to cost and land fragmentation.

However, small landholders often depend on manual labor or bullock-driven ploughs, especially where fields are too small or irregular for tractors.

VIII. LABOR AND EMPLOYMENT

Agricultural labor in Palpur is largely provided by local villagers. During peak seasons like sowing and harvesting, labor demand increases and daily wage rates rise accordingly. Men primarily handle heavy fieldwork, while women assist with transplanting, weeding, and post-harvest processing.

The village also sees out-migration, especially among younger populations, who prefer employment in nearby towns or cities. This shift has led to labor shortages during critical agricultural periods, pushing some farmers to adopt more mechanized tools.

IX. MARKETING AND SALE OF PRODUCE

Farmers in Palpur generally sell their produce in:

1) Local mandis (markets) in Itaunja and Lucknow.
2) Village middlemen or commission agents who offer immediate cash but at lower prices.
3) Some progressive farmers sell directly through farmers' producer organizations (FPOs) or online platforms.

The lack of storage facilities and cold chains forces many to sell immediately after harvest, often when prices are lowest. Government procurement centers for wheat and paddy are available, but procedural delays and corruption discourage many farmers from using them.

X. GOVERNMENT SCHEMES AND INSTITUTIONAL SUPPORT

Farmers in Palpur benefit from several **government schemes**, including:

1) PM-KISAN: Direct cash transfer to eligible farmers.
2) Soil Health Card Scheme: Promotes balanced fertilizer use.
3) Kisan Credit Card (KCC): Offers loans at subsidized interest rates.
4) Crop Insurance under PMFBY (Pradhan Mantri Fasal Bima Yojana): Provides risk coverage against crop failure.

However, bureaucratic hurdles, lack of awareness, and delayed implementation limit the effectiveness of many schemes.

XI. CHALLENGES FACING AGRICULTURE IN PALPUR

Despite its agricultural potential, farmers in Palpur face several challenges:

1) Small and fragmented landholdings limit economies of scale.
2) Erratic weather and climate change affect crop cycles.
3) Overuse of chemical inputs is degrading soil health.
4) Inadequate storage and market infrastructure reduce profit margins.
5) Dependence on monsoon and poor irrigation infrastructure leave crops vulnerable to drought.
6) Limited crop insurance coverage fails to adequately compensate for losses.

XII. SHIFT TOWARDS DIVERSIFICATION AND SUSTAINABILITY

In response to challenges, there is a gradual shift toward:

1) Crop diversification – introduction of high-value vegetables and pulses.
2) Horticulture and floriculture – some farmers are experimenting with marigold, guava, and banana plantations.
3) Organic farming – adopted by a few for niche markets and export.
4) Integrated farming systems (IFS) – combining crops with livestock, poultry, and fish farming.

These shifts, though currently limited, indicate an emerging trend towards sustainable agriculture.

XIII. ROLE OF WOMEN IN AGRICULTURE

Women in Palpur play a critical but often underrecognized role in agriculture. They participate in:

1) Sowing, transplanting, weeding, and harvesting.
2) Post-harvest activities like drying, cleaning, and storage.
3) Backyard poultry and kitchen gardening.

Empowering women through self-help groups (SHGs) and agricultural training could significantly enhance productivity and household income.

XIV. FUTURE PROSPECTS AND RECOMMENDATIONS

To improve the agricultural scenario in Palpur, several measures can be undertaken:

1) Encouraging farmer collectives (FPOs) for better market access and input procurement.
2) Improving rural infrastructure – especially roads, storage, and irrigation.
3) Training and capacity building – through Krishi Vigyan Kendras and extension services.
4) Promoting agri-entrepreneurship – especially among youth and women.
5) Leveraging digital tools – such as mobile apps for weather forecasts, market prices, and crop advisory.

XV. CONCLUSION

The agricultural pattern in Palpur reflects the resilience and adaptability of rural farmers amid various challenges. While traditional crops like wheat and paddy still dominate, there is a growing awareness about diversification, mechanization, and sustainability. With appropriate support from the government, NGOs, and private sector, Palpur has the potential to transform its agriculture into a more profitable and sustainable enterprise, ensuring food security and rural development for future generations.

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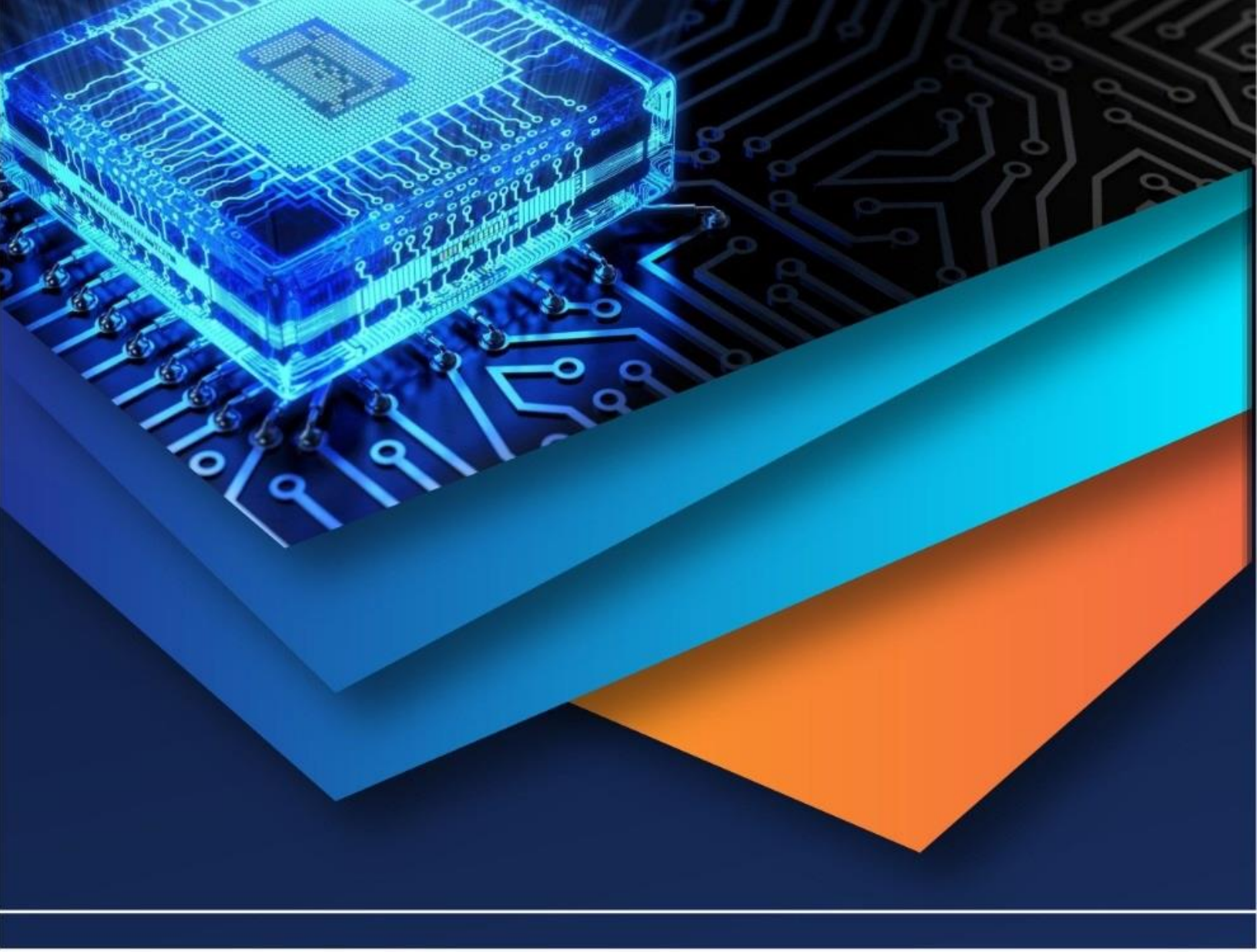

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