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BA Economics Honours | Semester 3 | Calicut University

Agricultural Development in India

Course Code: ECO3MN203 • Module 2

Module II: Agricultural Production and Productivity

Agricultural growth is driven by two components: expansion in gross cropped area (horizontal expansion) and growth in physical yield per hectare (vertical intensification). In an economy with fixed land frontiers like India, sustained agricultural output expansion depends exclusively on elevating land and labor productivity.

Unit 7: Trends in Agricultural Production and Productivity

The post-independence agricultural production trajectory illustrates dramatic yield improvements:

- **Foodgrain Production:** Surged from 50.8 million tonnes in 1950–51 to an all-time record exceeding 330 million tonnes in 2023–24. Rice production expanded from 20 million to 135 million tonnes; wheat production surged from 6 million to over 112 million tonnes.
- **Commercial Crops:** Cotton production expanded through Bt cotton adoption; sugarcane output expanded to make India the world's largest sugar producer; horticulture production (fruits and vegetables) now exceeds 350 million tonnes, outstripping total foodgrain tonnage!
- **Yield Productivity Gap:** Despite total output gains, average crop yields in India (e.g., paddy yield ~2,800 kg/ha; wheat ~3,500 kg/ha) remain significantly below global leaders (China paddy yield > 7,000 kg/ha; US wheat yield > 8,000 kg/ha), indicating immense untapped productivity potential.

Unit 8: Causes of Low Agricultural Productivity in India

Economists classify the causes of low agricultural productivity into four structural categories:

1. **Institutional Factors:** Small and fragmented landholdings prevent modern scale economies; insecure tenancy arrangements discourage long-term private capital investments in land improvement.
2. **Technological Factors:** Inadequate irrigation coverage (~50% rainfed); reliance on outdated wooden plows and manual methods in central and eastern India; imbalanced fertilizer use (skewed N:P:K ratios due to urea subsidies); and low seed replacement rates.
3. **Infrastructure and Market Bottlenecks:** Lack of cold chain storage causing 15%–20% post-harvest spoilage of perishable fruits and vegetables; exploitative mandi intermediaries; and limited access to formal bank credit for tenant farmers.
4. **Environmental and Climate Pressures:** Groundwater depletion in the Indo-Gangetic plains, soil salinization, and increasing frequency of climate-induced extreme weather events (heatwaves, unseasonal rains).

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