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BA Economics Honours | Semester 3 | Calicut University

Knowledge Economy in India

Course Code: ECO3MN204 • Module 3

Module III: Human Capital and the Knowledge Economy

In endogenous growth theory (Paul Romer, Robert Lucas), human capital accumulation—the knowledge, skills, competencies, and health embodied in individuals—is the definitive driver of long-run technological innovation and sustained per capita GDP growth.

Unit 12 & 13: Education, Skill Development, and Brain Drain Dynamics

To sustain a competitive knowledge economy, India must continuously upgrade its human capital ecosystem:

- **National Education Policy (NEP 2020):** Restructuring education from rote learning toward critical inquiry, interdisciplinary research, foundational numeracy, and digital pedagogy.
- **Skill Development Infrastructure:** The National Skill Development Corporation (NSDC), Skill India Mission, and Industrial Training Institutes (ITIs) bridging the acute employability gap between university degrees and industry requirements.
- **From Brain Drain to Brain Gain / Diaspora Engagement:** Historically, India suffered massive emigration of premier engineering and medical talent to the West (brain drain). In the modern era, the global Indian diaspora (heading multinational tech titans like Microsoft, Google, Adobe) serves as a vital bridge for venture capital investment, technology transfer, and collaborative research networks.

Advanced Theoretical Formulations and Empirical Frameworks (Analytical Division 1)

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Consider the structural estimation of policy impacts across decentralized economic agents. When evaluating macroeconomic interventions or microeconomic regulatory changes, parameters estimated from observational datasets must account for expectations formation and structural parameter stability in accordance with the Lucas Critique. Consequently, contemporary applied economics bridges micro-foundations with aggregate macroeconomic phenomena through dynamic stochastic general equilibrium (DSGE) modeling and micro-econometric panel estimations.

Comparative Institutional Analysis, Market Failures, and Policy Governance

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In the context of the Indian economy and sub-national development paradigms, the Kerala Model of Development provides a seminal empirical case study illustrating the complex trade-offs between social development and economic growth. Characterized by high physical quality of life indicators—including near-universal adult literacy, high life expectancy, and low infant mortality rates comparable to advanced Western economies—achieved despite historically modest per capita state domestic product, Kerala demonstrates the transformative power of public social expenditure, agrarian land reforms, and decentralized local governance (Panchayati Raj institutions).

However, contemporary economic analysis also highlights structural challenges confronting this development paradigm: high educated unemployment, fiscal constraints stemming from escalating public debt servicing and pension obligations, and heavy reliance on external remittance inflows from migrant workers in the Persian Gulf. Sustaining this high-welfare equilibrium necessitates transitioning toward a knowledge-driven economy, incentivizing high-tech manufacturing, and mobilizing sustainable sub-national fiscal resources.

Policy Synthesis and Analytical Evaluation

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