NEXT IAS

GIST OF KURUSHETRA

ENHANCING INNOVATION IN RURAL INDIA

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Chapter 1: Making Lakhpati Didis

Lakhpati Didi Initiative:

- It is an initiative of the **Ministry of Rural Development** that strives to empower women associated with **Self-Help Groups (SHG)** to have an annual household income exceeding **Rs. 1,00,000** through **adopting sustainable livelihood practices**.

- It was launched in **2023**. With an initial target det for **2 crore Lakhpati Didis**, the program target has been enhanced to 3 crores during 2024-25.

Overview of the Initiative:

- The Lakhpati Didi initiative supports over **94 lakh Self-Help Groups (SHGs)** with 10 crore women, empowering them to achieve an annual household income exceeding Rs. 1,00,000.

- These women inspire others through **sustainable livelihood practices** and achieving a decent standard of life.

- SHGs provide support through **collective action, financial literacy, and skill development** for entrepreneurial ventures.

- The initiative **facilitates diverse livelihood activities** by coordinating across Government departments, Panchayati Raj Institutions, Private sector, and Market players with focused planning, implementation, and monitoring at all levels.

Strategy of the Scheme:

- **Deepen, Strengthen, and Expand Livelihood Options:** Households will be facilitated in **diversifying income-generating activities**. Trained Community Resource Persons will use a tool for Livelihood Planning and upload data to a **digital platform** for consolidation and resource linkages.

- **Capacity Building:** A Cascade Training Strategy will be used **to train and support Potential Lakhpati Didis (SHG members)** across India. Experts will train Resource Persons, who will then train Master Trainers in each state and union territory. These Master Trainers will train Community Resource Persons selected by State Missions to guide the identified Lakhpati Didis.

- **Financial Assistance:** DAY-NRLM will help **mobilize financial support** for SHG women and their federations, providing a platform for their growth.

- **Aajeevika Register:** SHG members are involved in diverse livelihood activities like agriculture, livestock rearing, handicrafts, and more. The Aajeevika Register **tracks these activities at the village level to enhance income and measure progress**. Maintained at the Village Organization (VO) level, it will be updated every six months to **aid planning and track the progress** of Lakhpati Didis.

Momentum to Nari Shakti

- **30 crore Mudra Yojana loans** disbursed to women entrepreneurs
- Female enrolment in higher education increased by **28 per cent** in 10 years
- Female constitute **43 per cent** of enrolment in STEM courses, one of the highest in the world
- **1 crore** women assisted by **83 lakh** SHGs to become Lakhpati Didis

Financial Assistance:

- **Revolving Fund (RF)**: A savings fund within a Self Help Group (SHG) where members contribute regularly and lend to each other for urgent needs, fostering ownership and financial habits. Each SHG typically

receives Rs. 20,000 to Rs. 30,000 for internal lending.

- **Vulnerability Reduction Fund (VRF)**: Provided to Village Organisations (VOs) via Cluster Level Federations to address vulnerabilities like food insecurity and health risks. Each VO gets Rs. 1,50,000 for member livelihoods and collective activities, disbursed based on Micro Credit Plans (MCPs) and Vulnerability Reduction plans.

- **Community Investment Fund (CIF)**: Enhances the creditworthiness of community institutions and empowers women in financial management. SHG federations lend up to Rs. 2.50 lakh per SHG for various socio-economic activities, distributed through Cluster Level Federations or Village Organizations.

- **Viability Gap Fund (VGF)**: Supports Cluster Level Federations (CLFs) in covering operational costs until they achieve 100% Operational Self-Sufficiency. Provides financial assistance for three years to help CLFs reach financial sustainability.

- **Financial Inclusion**: Engages SHG members with financial regulators and commercial banks through workshops, forums, and capacity-building programs to empower them as financially established individuals, referred to as "Lakhpati Didis".

- **Women Producer Groups (PGs)** can receive financial support of Rs. 2 Lakh per group for working capital and infrastructure, enabling them to aggregate commodities and achieve better price negotiation and higher profits in the market. This support aims to sustain and enhance the business activities of these small-sized, unregistered entities at the village level.

- **Producer Enterprises (PEs)**: Promote large Producer Enterprises for economies of scale, better market access, and professional management. State-level federations are encouraged.

- **Women Farmer Producer Organizations (FPOs)**: Partnering with the Ministry of Agriculture, Rs. 15 lakh equity grants are provided over three years to each FPO.

- **Community Enterprise Fund (CEF)**: Schemes like SVEP and OSF support SHG members in developing and expanding enterprises. SVEP has a budget of Rs. 6.5 crore per block, creating Block Resource Centers and placing Community Resource Persons for assistance.

- **Aajeevika Grameen Express Yojana (AGEY)**: Provides subsidized loans for rural transport services. Individuals can get loans up to Rs. 6.5 lakhs, and groups up to Rs. 8.5 lakhs.

- **One Stop Facility (OSF)**: Block-level centers provide business development services. Support is Rs. 2.5 lakh for individual enterprises and Rs. 5 lakh for group enterprises with a 10% entrepreneur contribution.

- **Micro Enterprise Development (MED)**: Supports non-farm sector enterprises for SHGs with a Rs. 20 lakh budget per block, aiding at least 200 enterprises.

- **Incubator**: Aims to scale up 150 women-owned enterprises in each state/UT with Rs. 10.70 crore per state for manufacturing and service sectors.

- **Cluster Promotion**: Promotes artisan and sectoral clusters with Rs. 5 crore per cluster for interventions like design development, market development, and technology upgradation.

- **Capitalization Support for SHGs**: Includes collateral-free loans up to Rs. 20 lakh per SHG, interest subvention, overdraft limits, and the Women Enterprise Acceleration Fund for credit guarantees and loans.

- **Marketing Support**: Market linkages through buyer-seller meets, e-commerce platforms (e.g., Amazon, Flipkart, Meesho), and partnerships like Patanjali for SHG products.

Chapter 2 : Adoption of Digital Technologies in Rural India

India's rural landscape has witnessed a remarkable transformation in recent years, driven by the rapid adoption of digital technologies. From education and healthcare to agriculture and economic empowerment, the integration of cutting-edge digital solutions has the potential to bridge the urban-rural divide and uplift the lives of millions living in the hinterlands.

- **Revolutionizing Education: Bridging the Learning Gap**
  - The COVID-19 pandemic has underscored the importance of digital education, particularly in rural India.
  - The government's flagship initiatives like the **PM e-Vidya program** and the **Pradhan Mantri Digital Saksharta Abhiyan (PMGDISHA)** have been instrumental in providing access to online learning resources and digital literacy training to students and adults in remote areas.
  - According to a report by the Ministry of Education, the PMGDISHA scheme has trained over **5.5 crore rural citizens** in digital skills since its inception in 2017, empowering them to navigate the digital landscape.

- **Transforming Healthcare: Telemedicine and Digital Diagnostics**
  - The adoption of telemedicine and digital diagnostics has revolutionized healthcare delivery in rural India. The **Ayushman Bharat Digital Mission (ABDM)** has facilitated the creation of a unified digital health infrastructure, enabling seamless access to medical services and electronic health records.
  - A study by the **National Health Authority** reveals that the **utilization of telemedicine services** in rural areas **increased by over 700%** during the pandemic, underscoring the transformative potential of these technologies in addressing the challenges of geographic barriers and limited access to specialized healthcare.

- **Empowering Agriculture: Precision Farming and Market Linkages**
  - Digital technologies have transformed the agricultural landscape in rural India. Initiatives like the **Digital India Land Records Modernization Programme (DILRMP)** and the **National Agriculture Market (e-NAM)** platform have empowered farmers with access to land records, weather forecasts, and online marketplaces.
  - According to a report by the Ministry of Agriculture and Farmers' Welfare, the adoption of precision farming techniques, enabled by digital tools and sensors, has led to a **20-30% increase in crop yields** in several states, improving the livelihoods of rural communities.
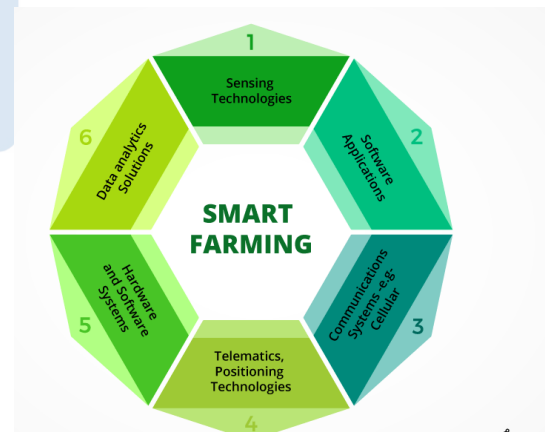
- **Driving Economic Empowerment: Digital Financial Inclusion**
  - The push for digital financial services has been a game-changer for rural communities. Schemes like the **Pradhan Mantri Jan Dhan Yojana (PMJDY)** and the **Unified Payments Interface (UPI)** have facilitated seamless access to banking, credit, and digital payments.
  - A study by the **Reserve Bank of India** indicates that the percentage of rural adults with a bank account increased from **53% in 2014** to **80% in 2021,** reflecting the transformative impact of these initiatives in promoting financial inclusion and economic empowerment.

- **Empowering Women: Digital Entrepreneurship and Skilling**
  - Digital technologies have also empowered rural women by providing access to entrepreneurial opportunities and skill development programs.
  - Initiatives like the **Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)** and the **Mahila E-Haat platform** have enabled women to leverage digital tools for their economic and social upliftment, fostering a more inclusive and equitable digital ecosystem.
- Government schemes like the **BharatNet project, the Common Service Centres (CSCs),** and the **Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)** are working towards bridging the digital divide and creating a more inclusive digital ecosystem in rural areas. These initiatives aim to provide high-speed internet connectivity, access to digital services, and digital literacy training to empower rural communities.

Challenges and the Way Forward

While the progress has been commendable, challenges such as infrastructure gaps, digital literacy, and cultural barriers continue to hinder the widespread adoption of digital technologies in rural India. Sustained efforts by the government, private sector, and civil society organizations are crucial to address these challenges and ensure that the benefits of digital transformation reach the last mile.

As India marches towards its vision of a digitally empowered nation, the adoption of digital technologies in rural areas holds the key to unlocking the true potential of inclusive development and sustainable growth. By leveraging the power of digital solutions, rural India can unleash a new era of prosperity, empowerment, and social transformation.

Chapter 3 : Rebooting Operation Flood through Innovation

India's dairy industry has seen significant growth, with milk production increasing at a CAGR of **5.85%** between 2014-15 and 2022-23. India produced **230.58 million tons** of milk in 2022-23, leading the world with a **24.64% share of global milk output.** However, productivity remains low compared to affluent countries, with India's cows producing less milk on average.

- **Operation Flood,** launched in **1970,** had three goals: raising rural incomes, increasing milk production, and supplying affordable milk. It successfully boosted milk production but still faces challenges in rural incomes and milk affordability.

- Despite leading in production, **India's per capita milk consumption lags** behind many developed nations.

- Several issues persist, including low productivity, poor cattle management, and quality concerns, with significant portions of milk being adulterated. To address these challenges, a second phase of Operation Flood, driven by innovation and technology, is essential.

Milk production in India (in Million tonnes)

17 (1951), 20 (1961), 22 (1971), 31.6 (1981), 53.9 (1991), 80.6 (2001), 121.8 (2011), 210 (2021)

- **Technological advancements** such as automated milking systems, data-driven decision-making, and precision feeding can significantly improve efficiency and sustainability in dairy farming. These technologies help monitor animal health, optimize nutrition, and enhance milk production.

- Additionally, sustainable practices like smart barns and biogas production can reduce the dairy industry's environmental impact.

- **The integration of AI and robotics in dairy farming** promises further improvements in herd management and productivity. Digitalization and automation can help manage large herds more effectively, reducing labor and operational costs.
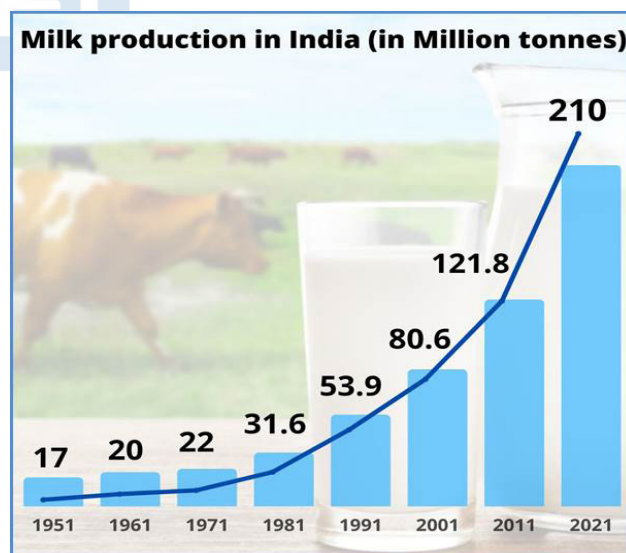
- The **future of dairy farming** lies in embracing these innovations to ensure sustainable growth, improve rural incomes, and provide affordable, high-quality milk to consumers. This will also help address broader environmental concerns by reducing greenhouse gas emissions associated with dairy farming.

Chapter 4-Rural India: Innovation for Inclusiveness

Inclusiveness is key to development, requiring not just availability but seamless access to facilities and resources. Innovations have greatly reduced the development gap between urban and rural areas in India. This article explores how innovation fosters inclusiveness in rural India.

Innovation for Development

- The United Nations defines innovation for development as using modern concepts and tools to create impactful, resilient, and inclusive societies.

- India has improved **its Global Innovation Index (GII)** ranking from 48 in 2020 to **40 in 2023.** With innovation as a central theme, India has strengthened scientific and technological capabilities, enhancing inclusive development.

Telecommunications: Bridging the Divide

- The number of telephone connections in India surged from 41 million to 943 million between 2001-2012, with mobile phones constituting 911 million. Rural tele-density grew from 1.7% in 2004 to 58.5% in 2023.

- The **PM-WANI scheme** further increases internet penetration, reflecting in the lives of rural populations and nurturing inclusiveness.

Healthcare: Accessible Quality Care

- Rural areas often lack quality healthcare due to the preference of professionals for urban locations.

- The **e-Sanjeevani telemedicine** service has addressed this, with over 241 million consultations since its 2019 launch. This service has provided accessible expert health advice to rural populations, significantly benefiting women and senior citizens.

Education: Equal Opportunities

- Urban-rural education disparity affects social equality. Increased internet penetration and educational apps have given rural children access to quality resources. The pandemic accelerated digital learning adoption. AI integration offers customized learning, making high-quality materials accessible to rural students and educators.

Banking and Finance: Inclusive Services

- Access to banking and credit has improved with Aadhaar-based services. Aadhaar's database and biometric authentication enable better credit scoring and risk assessment for underserved populations.

- Digital payment solutions and agent banking have enhanced financial inclusion, fostering economic growth in rural areas.

Agriculture: Boosting Productivity

- About **70%** of rural households depend on agriculture. Technological advancements like **AI-enabled drones** have improved farming efficiency.

- Government subsidies support drone use, and digitization of farm insurance has expedited claims resolution. Mobile apps provide crucial information on insurance, weather, and market prices.
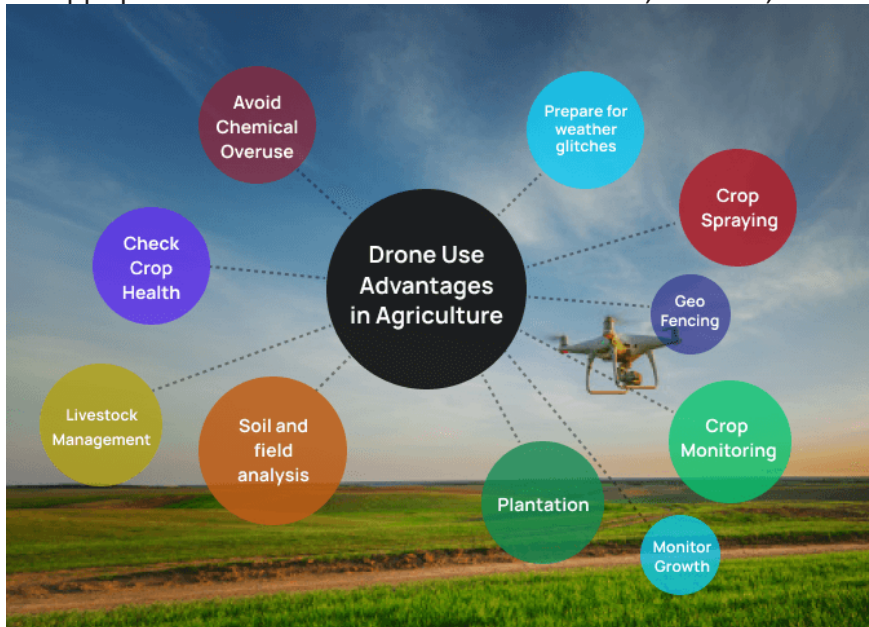
Access to Clean Water: Sustainable Solutions

- Access to safe drinking water is critical. Startups like Boon have introduced solar-powered water ATMs with IoT-based monitoring, improving water accessibility.

- Innovations like the **Bhujal app** help measure groundwater levels, aiding better water management and planning.

Conclusion

Innovations in rural India align with **sustainable development goals (SDGs)** and promote inclusive growth. Robust digital infrastructure is crucial for sustaining development, and mitigating urban bias in large firms is essential to ensure rural inclusiveness. Through continuous innovation, rural India can achieve greater inclusiveness and development.

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UPSC Mains Practice Questions-(Around 250 words)
Q.1 Discuss the role of innovation in fostering inclusiveness in rural India. Highlight key sectors where technological advancements have significantly impacted rural development, and examine the challenges that need to be addressed to sustain this growth.
Q.2 Discuss how technological innovations can revitalize India's dairy sector, akin to Operation Flood. Explain their role in boosting productivity, rural incomes, and environmental sustainability, with examples and suggested reforms.
Q.3 Critically examine the Lakhpati Didi scheme launched by the Ministry of Rural Development. Discuss its potential in empowering rural women and achieving sustainable development in rural India.