



Addressing rural challenges in India: Lessons learned from Japan

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THE JAPAN-INDIA ASSOCIATION



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About Next Bharat Ventures



Venture fund to create value for the
Next Billion - Informal & Rural economy in India



Support Impact entrepreneurs through Residency program



Think-Thank of Next Bharat which is a platform to provide:

1. Access to generic & organic Knowledge/Understanding/Thesis
2. Access to useful Network (Innovators, Academia, Researchers)
3. Enable exploration - BlueZone, 0to1, Agile Projects & Researches



Fund operation



Co-create value for the Next Billion with Japanese companies and organizations

About this research

🌸 Rapid economic growth of India

As one of the fastest-growing economies globally, India has 65% of its population in rural areas and face numerous challenges there.

🌸 Rural development in Japan post 1945

Japan has faced similar problems post 1945, whose experience can be useful for developing countries like India.

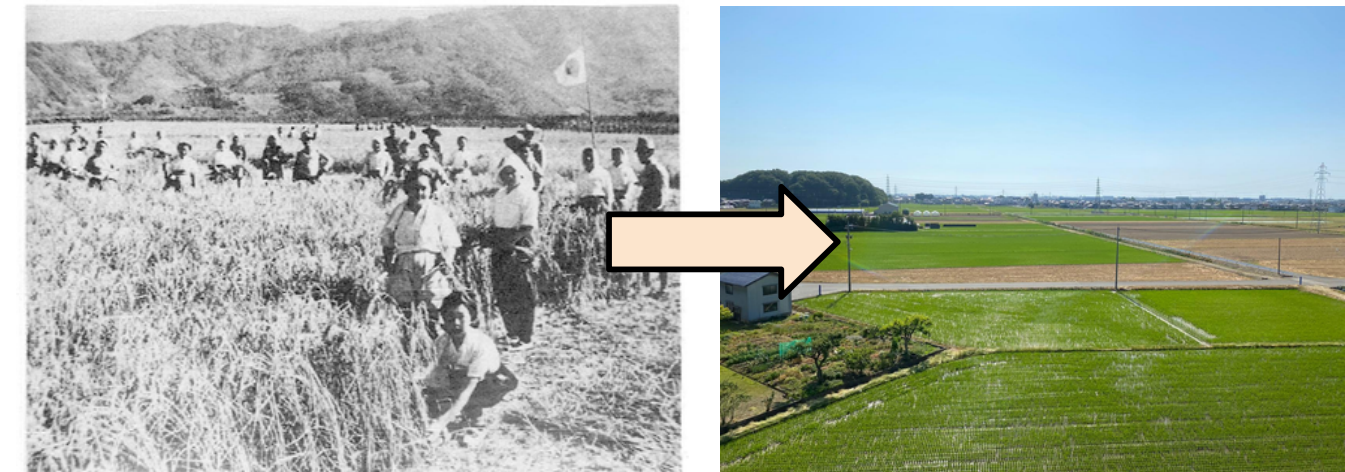
🌸 Unique position as donor country

Japan as a major donor country with firsthand experience as a recipient of development aid, is uniquely positioned to apply lessons from its own history to contemporary development efforts.

🌸 Current rural development initiatives in India

In India, rural development initiatives like 'smart village' has been running, which is focusing on overall development of villages.

Lesson from Japan



Current India



Rural development initiatives



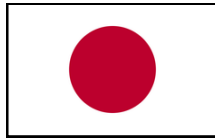
INDIA

Farmer Producer Organization

Farmer Producer Organization (FPO) scheme, launched in 2021, aims to support small and marginal farmers (86% of India's 146 million landholders) by addressing challenges like limited market access, financial constraints, and lack of agricultural knowledge. With around 24,000 registered FPOs, the initiative helps streamline input procurement, market access, and technology adoption. It also promotes the "One District One Product" strategy to encourage product specialization and boost farmer incomes.

Smart Village (Government, Private)

The Smart Village concept in India aims to revitalize rural areas by improving quality of life and promoting sustainable development through initiatives in infrastructure, agriculture, education, healthcare, governance, and community engagement. A primary survey of the government-led MPMVP program in Telangana and an NGO-led project in Bihar provided key insights into their implementation and impact.



JAPAN

Aizuwakamatsu Smart City Project

An initiative to utilize ICT across various fields as a means to address regional challenges and enhance the convenience of citizens' lives by fostering new jobs and industries through the concentration of ICT-related companies and applying advanced digital services to the local community.

Japan Agricultural Cooperative

Japan Agricultural Cooperative (JA) is a cooperative organization established with the spirit of "mutual assistance," meaning solidarity and helping each other. Its purpose is to protect the agricultural management and livelihoods of member farmers while building a better local community.

Strategic Innovation Promotion Program

CSTI advances Society 5.0 through top-down resource allocation, cross-sector collaboration, and integrated efforts from research to social implementation, emphasizing technology, policy, societal acceptance, and startup participation.

Empirical study

Purpose

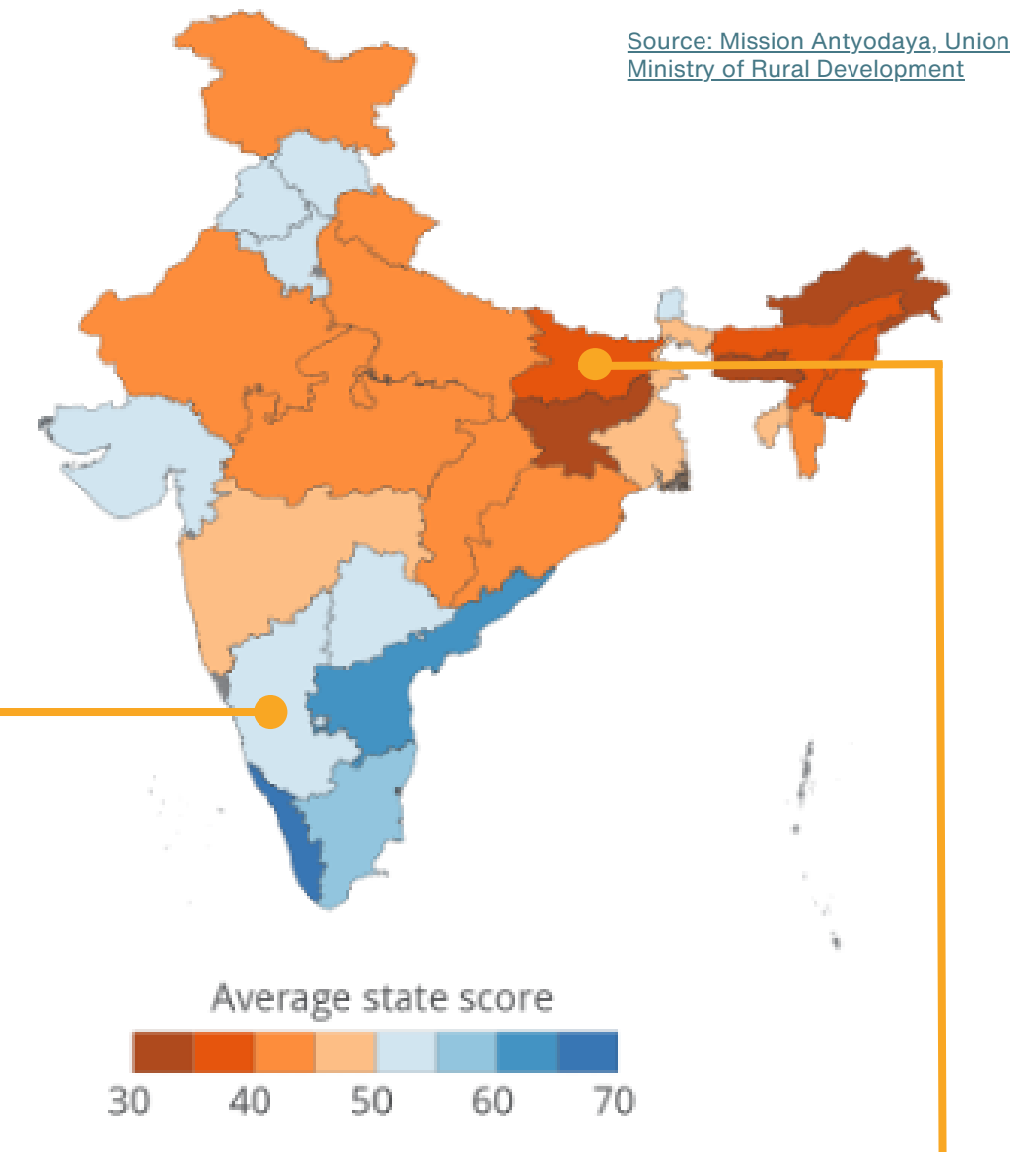
- 👉 To know the first hand problems in rural areas, especially in agriculture
- 👉 Shared information with Impact entrepreneurs and Japanese corp/org to promote them to create value for the Next Billion

Methodology

- 👉 States selection based on Average state score
 - Karnataka (High) <> Bihar (Low)
 - Under each state based on GDDP; Relatively developed, Backward and More/most backward

State	No of respondents	No. of districts	Number of villages under categorized districts		
			Relatively Developed	Backward	More/most backward
Bihar	97	6	5	6	8
Karnataka	94	4	5	9	6

- 👉 In person interviews with 13 FPOs in Karnataka and online interviews with 9 FPOs from Uttar Pradesh and Telangana, 1 in Bihar
- 👉 Field survey of Smart village 4 smart villages in Telangana



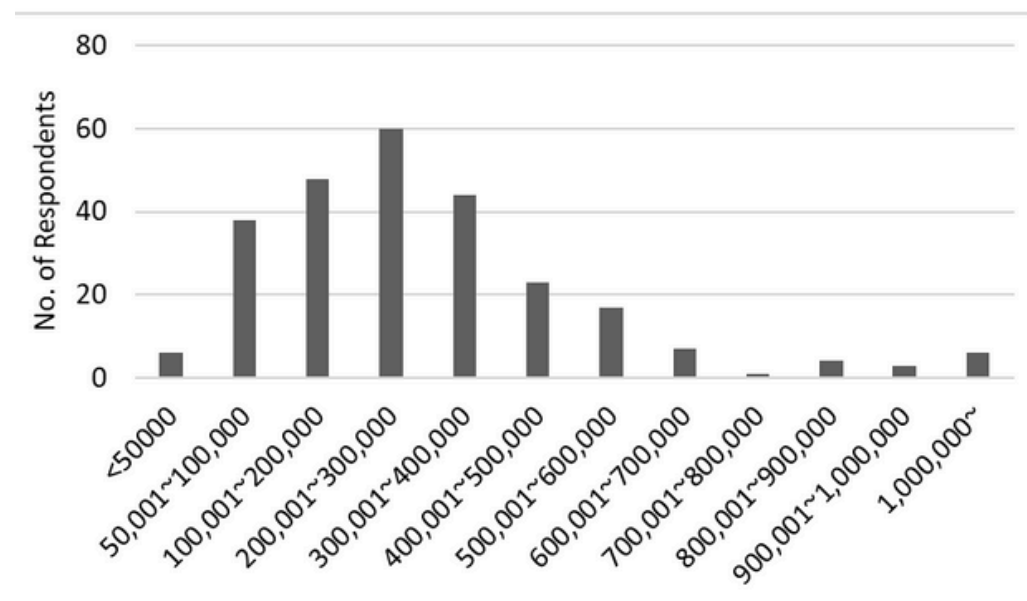
Karnataka



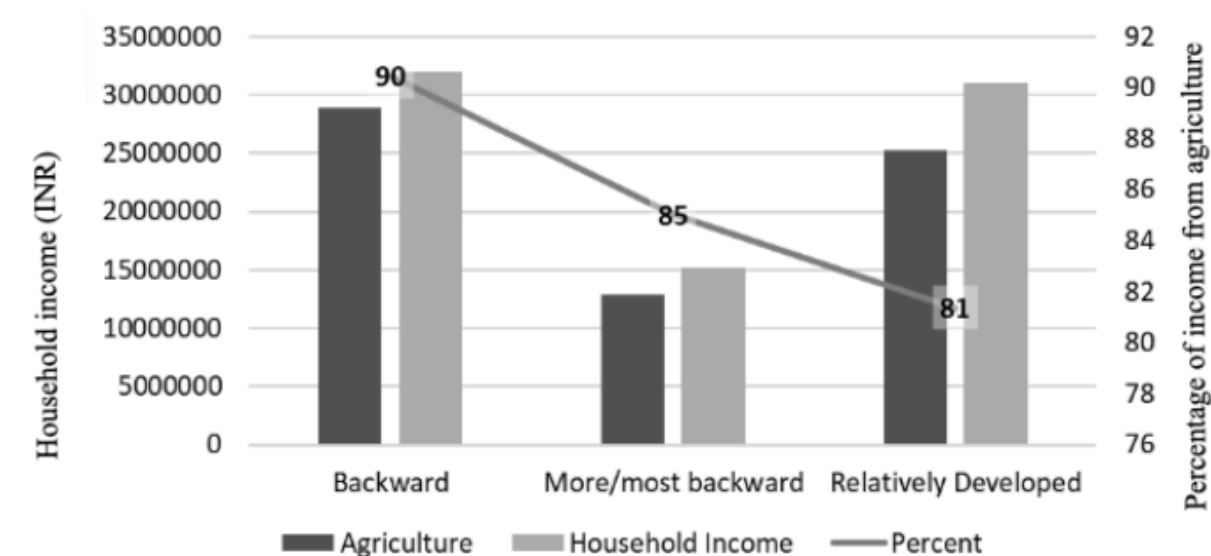
Bihar

Demographics of survey

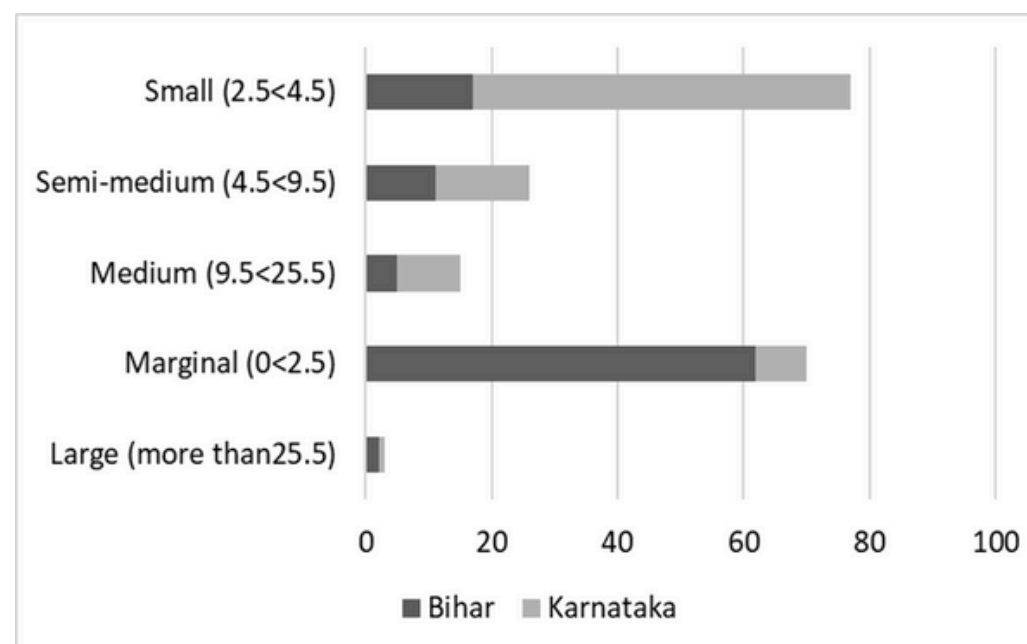
Distribution of household income



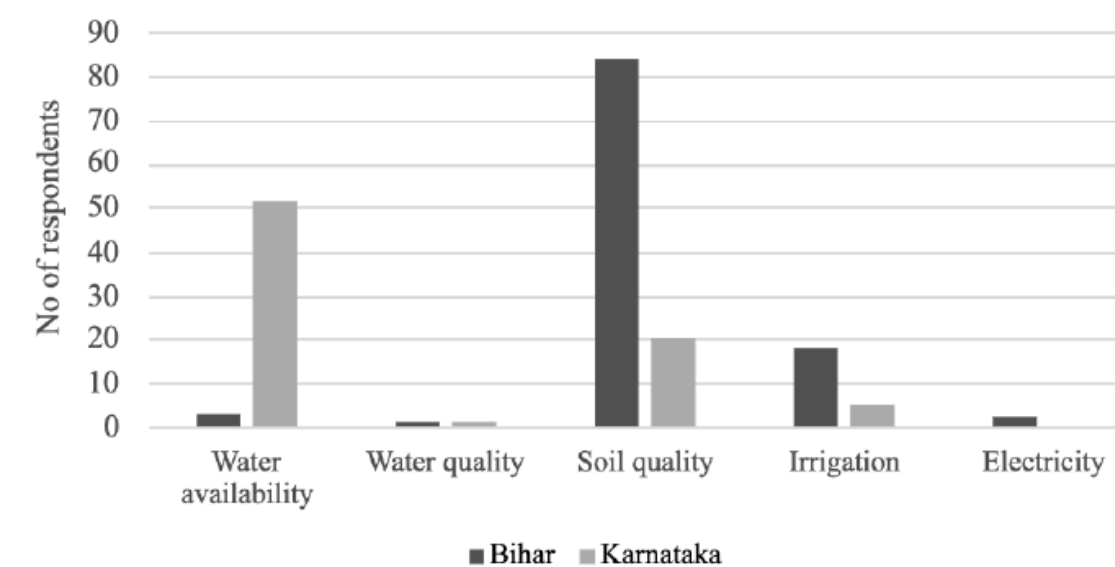
Income dependency of agriculture



Landholding size of respondents



Problems in agriculture in the survey



Findings - Summary of challenges in agriculture



Soil Quality

- **Bihar:** 85% of farmers report poor soil fertility, especially after two cultivation cycles.
- **Karnataka:** Only 30% report soil issues.
- **Action Needed:** Soil testing assistance and interventions.



Market Linkage

- **Challenges in market access:**
 - Lack of transportation and awareness in backward areas.
 - Price volatility and middlemen commissions lead to farmer losses.



Agricultural Credit

- **Challenges in accessing credit:**
 - High interest rates, complex procedures, unawareness.
 - Bihar-Specific Issue: Lack of land bonds for collateral.



Electricity Access

- Farmers struggle with power availability, impacting technology-dependent agricultural processes.



Irrigation and Water Availability

- **Infrastructure Issues :** Lack of boreholes or community irrigation systems in both states.
- **Water Challenges:**
 - **Bihar:** River proximity (Kosi, Ganga) helps but water quality is poor.
 - **Karnataka:** Over 70% report water unavailability.
- **Impact:** Delays in irrigation directly affect crop yields.

Findings- Notable Stories

Limitation of agriculture as income resource ~ Karnataka~

- Seasonal dependence on agriculture due to limited rainfall.
- High costs associated with accessing water resources.
- Absence of local industries to provide stable employment.
- Dependence on low-paying daily wage labor for large farmers.



Survey in Yallampalli and Chelur in Karnataka

Difficulty to access credit for agriculture ~ Bihar ~

- Lengthy and complex loan application processes.
- Unawareness of procedures and eligibility.
- Incidents of bribery adding to costs.
- Lack of necessary documents for loan approval.
- Inability to predict rainfall, making timely loan decisions critical.



Survey in Madhepura in Bihar

Findings- FPO survey

Low Awareness

- Only 10 out of 94 farmers in Karnataka recognized FPO activities or government programs.
- Misunderstanding of membership benefits and roles.
- Low participation in FPO-organized initiatives.

Financial Constraints

- Limited funds for bulk procurement and value-added product development.
- Shareholding fees (INR 1000) and administrative fees (INR 100) are insufficient for large-scale activities.
- Business plans like dairies and retail stores are delayed due to funding gaps.

Lack of Business Acumen

- CEOs have agricultural expertise but lack strategic business skills.
- Progressive CEOs focus on market demand and self-sustaining strategies, but such examples are few.
- Difficulty finding reliable buyers and managing competition.

Logistical Issues

- Poor transportation leads to delayed deliveries and higher rejection rates.
- Inadequate infrastructure limits scalability and efficiency.



FPO Survey in Malur and Hoskote in Karnataka



FPO Survey in Kolar and Tubagere in Karnataka

Findings- Smart Village Survey

Dependence on Key Players

- Both government and NGO-led programs rely heavily on individual stakeholders for success.
- Government projects, such as MPMVP, depend on the motivation and tenure of Members of Parliament (MPs).
- NGO-led initiatives often fail to sustain progress after the NGO withdraws, as observed in Dharnai

Lack of Needs-Based Planning

- Many projects begin without conducting surveys to assess the actual needs of the villagers.
- The absence of direct input from villagers leads to the construction of facilities that do not align with local requirements.
- As a result, several buildings and infrastructure remain underutilized or abandoned.

Lack of Business Acumen

- Villagers are not actively engaged in the planning and decision-making processes.
- The lack of local involvement reduces the sustainability and relevance of the projects to the community.

Sustainability Issues

- Smart village initiatives often lack long-term maintenance or management plans.
- Solar micro-grid plants in Dharnai became non-functional after the NGO ceased monitoring.
- Infrastructure such as animal shelters and agricultural godowns remain unused due to inadequate local management.



Infrastructure in smart village in Borapatla, Telangana



Infrastructure in smart village in Dharnai, Bihar

Comparative case studies of India and Japan (FPO and JA)

Points

Mutual Support within community / Leadership / Capacity Building / Collaboration

Aspects	FPO	JA
Community approach	Lack of mutual connection among the community	Strong traditional community-based approach
Leadership and management	CEOs understand farmer's need at least. Some of CEO have business acumen to expand FPO and collaborate with others.	Strong leadership with an understanding of farmers' and market needs; facilitates cooperatives for greater income.
Capacity building	Requires training for CEOs and members to enhance management skills.	Provides dedicated training and skill development for cooperative members.
Geographical consolidation	FPOs could adopt mergers in close geographical areas to strengthen management and aggregation capabilities.	Mergers reduced 12,000 JAs to 584 by 2020 for better management and operational efficiency.



FPO in Bihar



FPO in Karnataka



FPO in Bihar

Comparative case studies of India and Japan (Development initiatives)

Points

Multi-Stakeholder Collaboration / Villager Involvement / Long-Term Strategies / Cross-Ministerial Efforts / Readiness Levels Framework

Aspects	Development initiatives in India	Development initiatives in Japan
Stakeholder collaboration	Limited multi-stakeholder engagement in smart village projects. Villagers often play a minimal role.	Strong cross-sector collaboration: Government, private sector, academia, NGOs, and local communities actively involved in smart city projects.
Sustainability	Projects often fail due to lack of long-term strategies and maintenance frameworks.	Long-term sustainability ensured through detailed readiness levels (e.g., governance, social acceptability, and business viability).
Community role	Minimal involvement of local communities in driving and maintaining projects	Villagers and local bodies play a pivotal role in maintaining and sustaining smart city projects.
Implementation approach	Linear development model often led by a single ministry No structured process for scaling or transitioning projects to alternative initiatives.	Agile, multi-ministerial approach with mission-oriented frameworks. Readiness levels for governance, social acceptance, technology, and business.



Agriculture godown in Kowlas, a village under MPMVP smart village project



Senior citizen building in Kowlas, a village under MPMVP smart village project

Conclusions

Key Findings

- Surveys reveal significant agricultural challenges in rural India (at least 8 categories of issue), echoing Japan's post-1945 experiences, offering adaptable insights.

Lessons from Japan

- Community-based approaches, member homogeneity, and leadership from JA provide valuable examples for FPOs.
- Japan's smart city initiatives highlight the need for multi-stakeholder collaboration and effective citizen engagement for sustainable rural development.

Research Limitations

- Focused on agriculture; other areas like finance, infrastructure, and healthcare require exploration.
- Limited structured quantitative data to complement qualitative findings.

Future Directions

- Expand research to create a comprehensive rural problem map in India.
- Develop actionable frameworks for applying Japanese learnings to India's rural development.
- Delve into how these learnings can be effectively applied to specific on-ground rural development projects.