



# Farmers' Perspectives on Climate-Resilient Agriculture for Food Security: Bridging the Gap between Policy and Practice in Coastal Bangladesh

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*"Climate-Resilient Agriculture (CRA) offers a pathway to sustain food production in coastal Bangladesh amid climate threats, but weak institutions, limited inputs, and socio-economic barriers hinder adoption. Locally tailored strategies are needed to enhance resilience and sustainability."*

## 1. Introduction

- Climate change threatens food systems in coastal Bangladesh.
- CRA is critical for resilient, sustainable agriculture.
- Yet, adoption is low due to local-level constraints.
- Study explores farmers' views on CRA and barriers to its on-ground implementation & scale up

## 2. Research Questions

- What are the prospects for farmers to adapt to climate change?
- What factors hinder the adoption of CRA practices?

## 3. Research Approaches

**Study location:** Shyamnagar, Satkhira, Bangladesh, faces key adaptation challenges from cyclone impacts, salinity intrusion, and tidal surges

**Approach:** qualitative method

**Data Collection:** Interviews and focus group discussions,

**Framework Used:** 7 dimensions of CRA

- Agrometeorology Service
- Water Management
- Nutrient Management
- Technologies & Knowledge
- Infrastructure
- Socio-economic Resilience
- Institutions & Governance



Figure 1. Study area

Literature review/ Farmer interviews and FGDs/Expert interviews

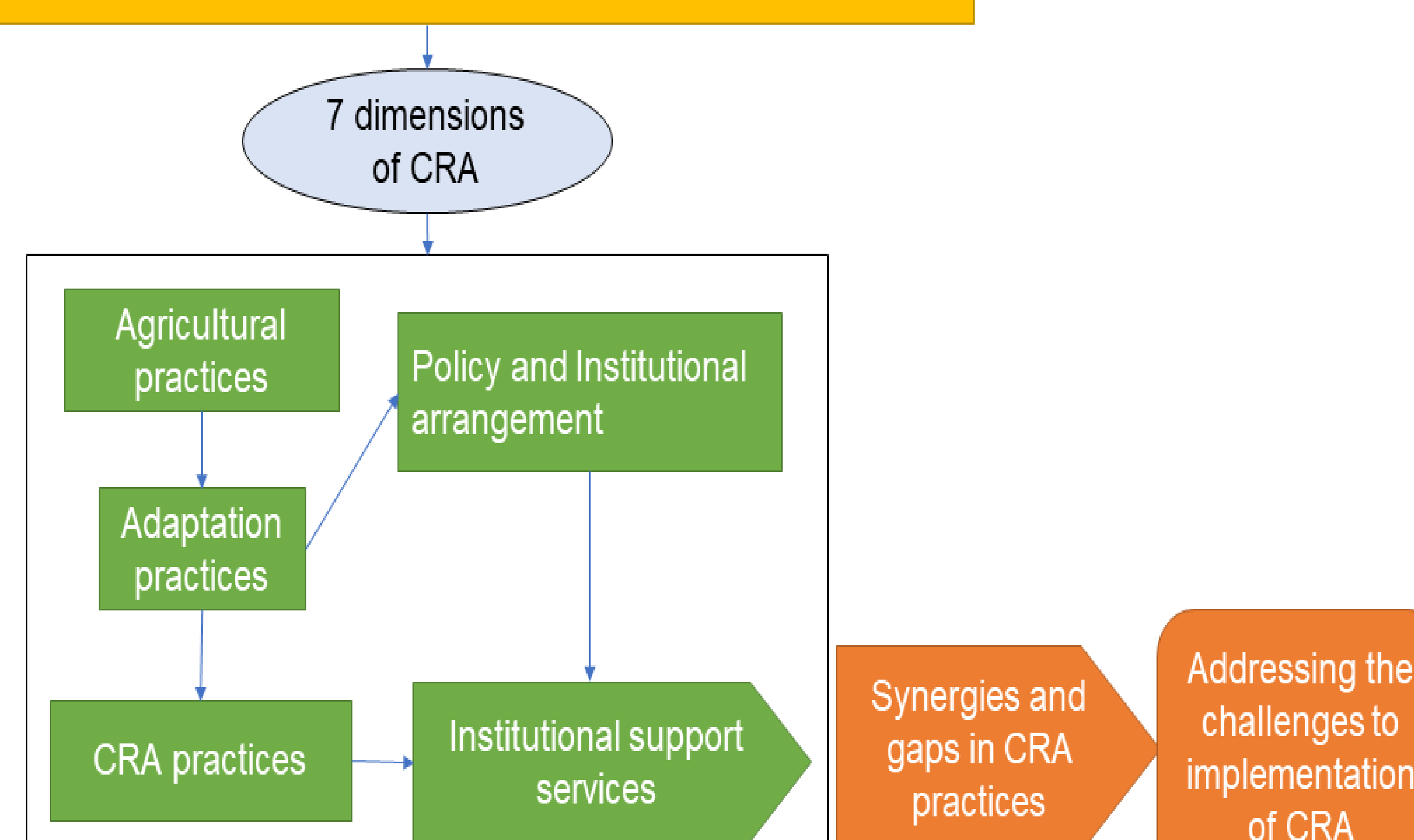


Figure 2. Analytical framework



Figure 4. Coastal agriculture

## 4. Results and Discussion

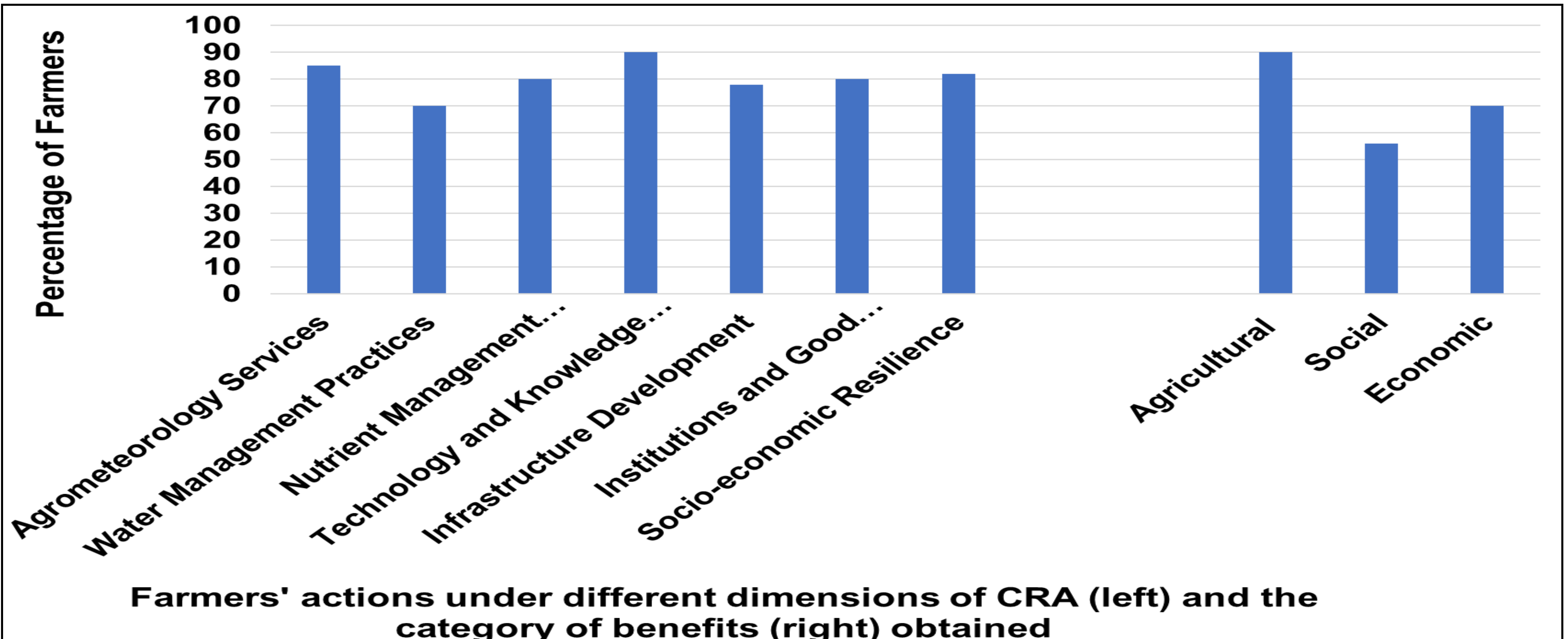


Figure 3. Percentage of farmers undertaking actions related to different dimensions of CRA and the types of benefits they obtained from these adaptation actions

## Key findings

- ◇ **Agricultural, Social, and Economic Value Recognized:** Farmers see clear benefits of adaptation.
- ◇ **Planned Adaptation – Limited by Institutions:** Weak coordination; poor implementation support
- ◇ **Autonomous Adaptation – Income & Access Dependent:** Income, landholding, services, and peer influence matter
- ◇ **Context-Specific:** Local culture, location, and gender shape decisions

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## 5. Conclusion

•Climate-resilient agriculture in coastal Bangladesh depends on **inclusive, context-sensitive strategies** that bridge institutional gaps and empower local farmers.

## 6. Key References

1. Kundu, S., Morgan, E. A., Smart, J. C. R. (2024): Farmers perspectives on options for and barriers to implementing climate resilient agriculture and implications for climate adaptation policy. (Q1-ranked, IF 4.9), 103618.
2. Pound, B., Lamboll, R., Croxton, S., Gupta, N., & Bahadur, A. V. (2018). *Climate-Resilient Agriculture in South Asia: An analytical framework and insights from practice. Action on Climate today, Learning Paper.* Oxford Policy Management.
3. Aryal, J. P., Sapkota, T. B., Rahut, D. B., Krupnik, T. J., Shahin, S., Jat, M. L., & Stirling, C. M. (2020). Major Climate risks and Adaptation Strategies of Smallholder Farmers in Coastal Bangladesh. *Environmental Management*, 66, 105-120. doi:https://doi.org/10.1007/s00267-020-01291-8

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