

Homes That Survive Disasters and Thrive Sustainably.

Business 
**Disaster-Resilient Housing
for Vulnerable Communities**



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About Us

This innovative business concept blends traditional practices with modern technology to create affordable, disaster-resilient housing tailored for India's vulnerable regions. Drawing inspiration from indigenous designs like Chang Ghar in Assam elevated bamboo houses that withstand floods and circular mud walls in Odisha with aerodynamic roofs to reduce cyclone damage, the initiative integrates modern advancements such as IoT flood sensors for real-time alerts (costing as little as ₹500/unit) and GIS-based disaster mapping to optimize housing placement. By training local workers and Self-Help Groups (SHGs) to construct homes using sustainable materials like bamboo, mud, lime, and compressed earth blocks, this model ensures affordability and cultural relevance. Homes are priced between ₹30,000–₹50,000 per unit, making them accessible to middle-class and poor families. What sets this idea apart is its ability to empower communities to take control during disasters rather than relying solely on external aid, creating a proactive and sustainable solution to recurring challenges.

Profit

01

Economic Benefits:

1. Preventive housing reduces post-disaster reconstruction costs by up to 70%.
2. Long-term savings through energy-efficient systems like biogas plants (₹15,000/unit) instead of costly solar panels.

02

Livelihood Creation:

1. Employing local artisans reduces labor costs while generating income for vulnerable communities.

03

Scalability for Government Schemes:

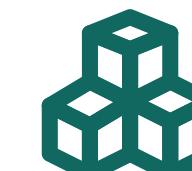
1. Affordable housing aligns with PMAY-G goals (~₹2 lakh/family).

Market



Target Audience

- Vulnerable communities in disaster-prone regions like Assam (floods), Odisha (cyclones), and Kerala (heavy rainfall).



Market Size



Over 40 million people live in high-risk areas annually affected by floods or cyclones.

Potential Partnerships



- Collaborate with NGOs like SEEDS or NEADS for grassroots implementation.

Define the market opportunity by identifying target audiences and partnerships.

Pricing

Detail a transparent pricing model that ensures affordability while maintaining quality.

1. Cost Breakdown Per Village (1,000 People):

- a. Training Local Task Forces: ₹50,000 (5-day workshop).
- b. Infrastructure Development: ₹2 lakh (floating storage units + reinforced granaries).
- c. Early Warning Systems: ₹20,000 (IoT sensors + community drills).

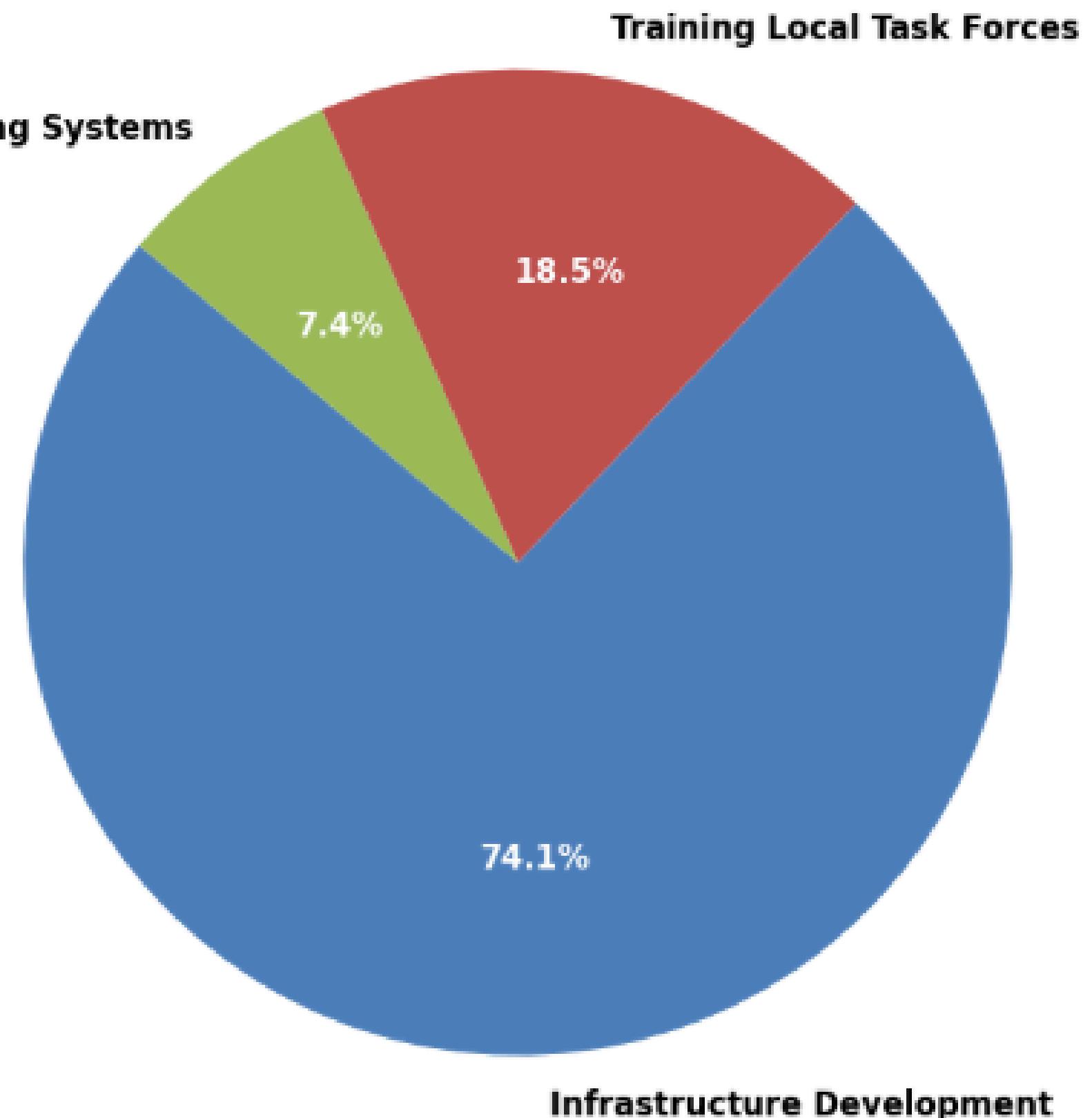
2. Affordable Pricing Per Home:

- a. Homes starting at ₹30,000–₹50,000 using locally sourced materials combined with modern reinforcements.

3. Total Cost Per Village:

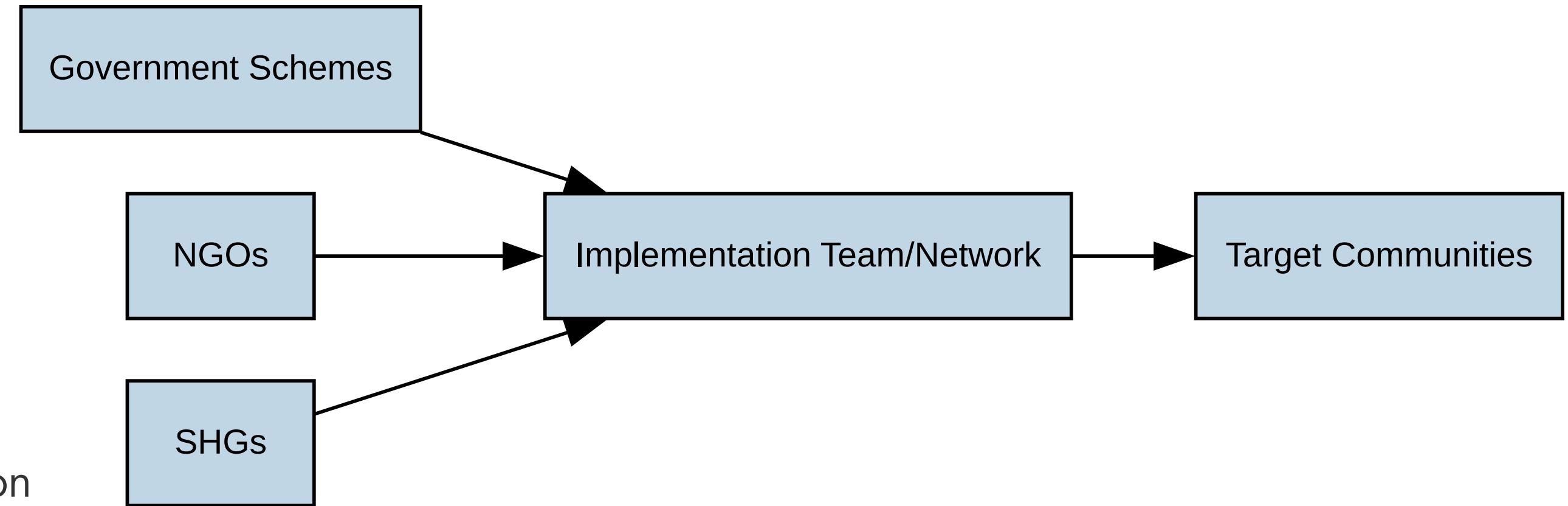
- a. ₹2.7 lakh (~1% of PMAY-G funds).

Cost Distribution Per Village



Channel

The distribution strategy that ensures efficient implementation across vulnerable communities.



Distribution Strategy

Leverage public-private partnerships with government schemes like PMAY-G or SDRF. Collaborate with NGOs for grassroots implementation.



Promotion Strategy

Launch social media campaigns (#ResilientHomesIndia) to drive awareness among policymakers.

Comparison Matrix: Traditional Approach vs Proposed Resilient Model

Metric	Traditional Approach	Proposed Resilient Model
Cost Efficiency	Higher recovery costs due to reactive measures	Prevention-focused with significant cost savings
Scalability	Limited scalability; design is rigid and funding intensive	Community-based, rapidly scalable using local resources
Community Impact	Minimal local engagement; fragmented recovery efforts	Empowers local communities with participatory design and maintenance

Edge

This initiative stands out compared to traditional disaster management approaches.

1. Proactive vs Reactive:

- Traditional methods focus on post-disaster relief; this model emphasizes prevention through resilient housing design.

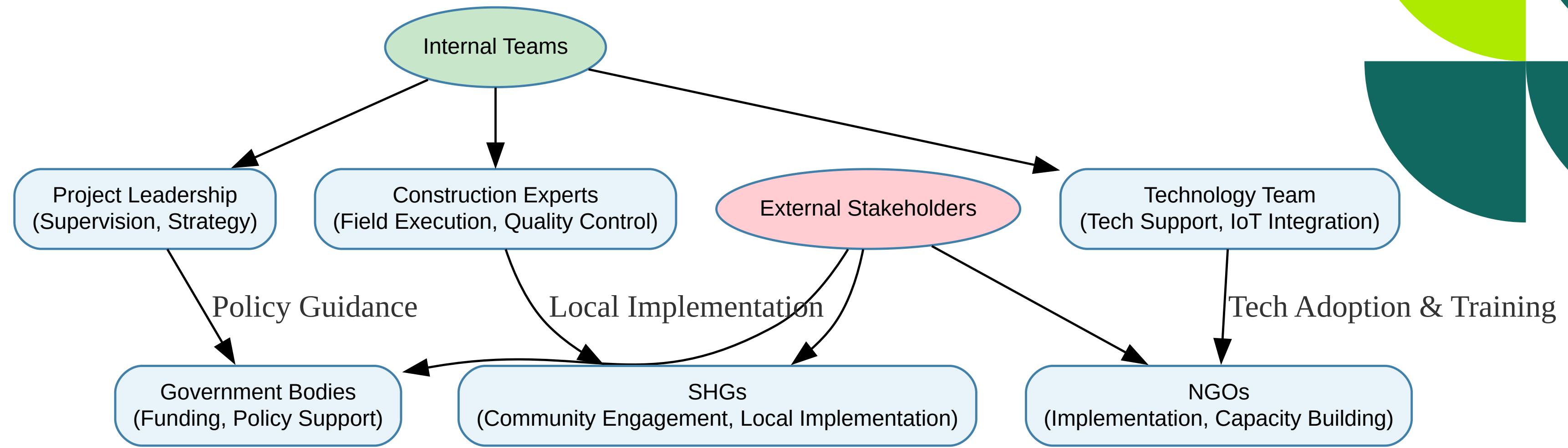
2. Unique Value Proposition:

- Community involvement ensures cultural relevance.

3. Competitive Analysis:

- Cost-effective solutions compared to expensive solar-powered housing models.

Structure



Organizational structure that supports implementation at scale.

1. Internal Team:

- Project leads specializing in disaster management.

2. External Stakeholders:

- Government bodies (PMAY-G, NDMA).

3. Collaborative Approach:

- Grassroots insights blended with technical expertise ensure scalability.

Funds

Detail funding requirements and financial projections to ensure sustainability.

1. Initial Capital Needs:

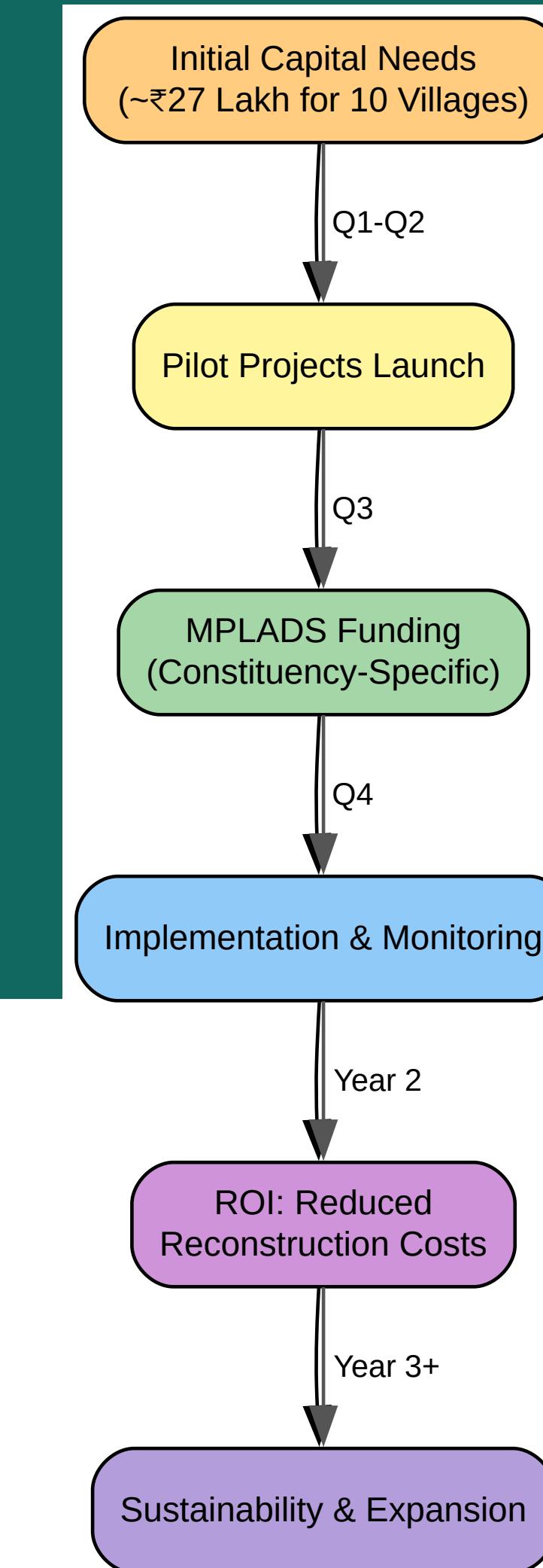
- Pilot projects across 10 villages (~₹27 lakh).

2. Funding Sources:

- MPLADS funds for constituency-specific projects.

3. ROI Projections:

- Reduced reconstruction costs post-disaster.



Risk

Risks and present mitigation strategies:

1. Structural Risks:

- Pilot projects test engineering challenges before scaling up.

2. Financial Risks:

- Multi-source funding ensures budget stability.
- Regulatory Risks Align designs with government policies; contingency planning delays

References and Resources

Books and Research Papers

- Disaster Management by S.C. Sharma (Khanna Publishing House) -Comprehensive insights into disaster preparedness, mitigation, and response in India.
- Design of A Sustainable Flood Resistant Structure for Rebuilding Resilient Kerala Post Floods-A detailed study on flood-resilient housing designs and their sustainability.
- Sustainable Housing Reconstruction: Designing Resilient Housing After Natural Disasters by Esther Charlesworth-Case studies on post-disaster housing reconstruction globally.

NGO Reports and Initiatives

- Habitat for Humanity India's Kerala Flood Response Program-Practical examples of disaster-resilient housing projects in flood-prone areas.

Government Publications

- Disaster Risk Reduction: A Handbook for Urban Managers by the Ministry of Housing & Urban Poverty Alleviation: Guidelines for multi-hazard-resistant housing designs.
- BMTPC's Guidelines for Improving Flood Resistance of Housing-Practical recommendations for disaster-resilient construction techniques.

Academic Projects

- Flood-Resilient Floating Community Housing (Majuli Island, Assam)-Innovative designs for floating homes in flood-prone regions.

Online Resources

- National Institute of Urban Affairs (NIUA): Climate Smart Cities Assessment Framework for urban disaster resilience.
- Habitat India's Disaster Resilience Campaign Umbrella strategies for disaster preparedness and housing reconstruction.

THANK YOU

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Entrepreneurship mindset