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05 Key Lessons for informing policy decisions

Scaling Climate Action Programs for Landless Rural Communities in Semi-Arid Ganges-Brahmaputra Basin in South Asia

Scale of the Problem in India



56%¹
Rural Households in India do not own land to practice agriculture



45 Million²
People in India estimated to undergo climate-induced migration by 2050



80%³
Population in India lives in districts highly vulnerable to extreme hydro-met disasters

About DRCSC

www.drcsc.org

Over the last 4 decades, Development Research Communication and Services Centre (DRCSC), as a non-profit development organization has been focusing on improving food, nutrition, and livelihood security for rural communities in resource-poor and climate-vulnerable settings through design and execution of innovative programs, undertaking action-research, and forging effective stakeholder engagements.

58A Dharmatola Road,
Kasba, Bosepukur, Kolkata
West Bengal 700042
INDIA

Executive Summary

Sharecroppers do not own farmland themselves but take on all the risks associated with cultivating land owned by others. During climate change events, which exacerbate crop failures and reduce income opportunities, they are often forced to migrate for longer periods in search of alternate livelihoods. The lack of any farmland registered in their names prevents them from accessing government agricultural schemes, leaving them completely disempowered.

This policy brief is purposed to distill five evidence-based lessons from TECSAI, a 2-year climate action program (2022-24) executed by DRCSC in the semi-arid district of Birbhum, West Bengal, with 1,200 rural landless households, predominantly tribal and scheduled caste communities, across 29 villages. DRCSC strongly urges policymakers to consider these insights in their future policy design endeavors for similar climate action programs.

How climate change affects landless rural communities in India and what should we do about it?

Climate change events like drought, excessive or erratic rainfall disproportionately affect rural landless communities who primarily rely on sharecropping and agricultural labor for their livelihoods but do not own any land. This lack of land ownership often limits their influence over farm practices - such as what crops to grow and which inputs to use. When climate change events occur, adverse agro-climatic conditions make it difficult for landless agricultural laborers to continue their usual livelihoods, forcing them to migrate to towns and cities in search of income-generating opportunities. Women in these communities, who are already marginalized, face a double whammy of climate vulnerabilities, leading to increased drudgery and financial insecurities.

The size of the problem is significant: 56% of rural households (an estimated 100 million⁴ households) in India do not have their own land to practice agriculture. Moreover, it is estimated that by 2050, India will witness 45 million climate-induced migrations.

While rural livelihood programs like MGNREGS specifically address the vulnerabilities of landless farmers, the bottleneck lies in sensitizing communities and creating a conducive ecosystem for the uptake of these schemes. Additionally, these programs might be designed to



mitigate climate change risks rather than making communities inherently resilient to climate shocks.

In this context, it is crucial to address the overlapping climate-induced vulnerabilities of landless communities in India and empower them with local adaptive capacities that are both replicable and sustainable.

Since 2022, DRCSC has been implementing a similar program in the Birbhum district of West Bengal. This document synthesizes five key evidence-based lessons to inform relevant policy decisions.

The Programme in Numbers

1200 Families
Impacted through the Program

29 Villages
Across which the program was executed

58 Women CSOs
Developed through the program

How to map out a climate vulnerability causal chain and effectively design interventions addressing the underlying and basic factors?

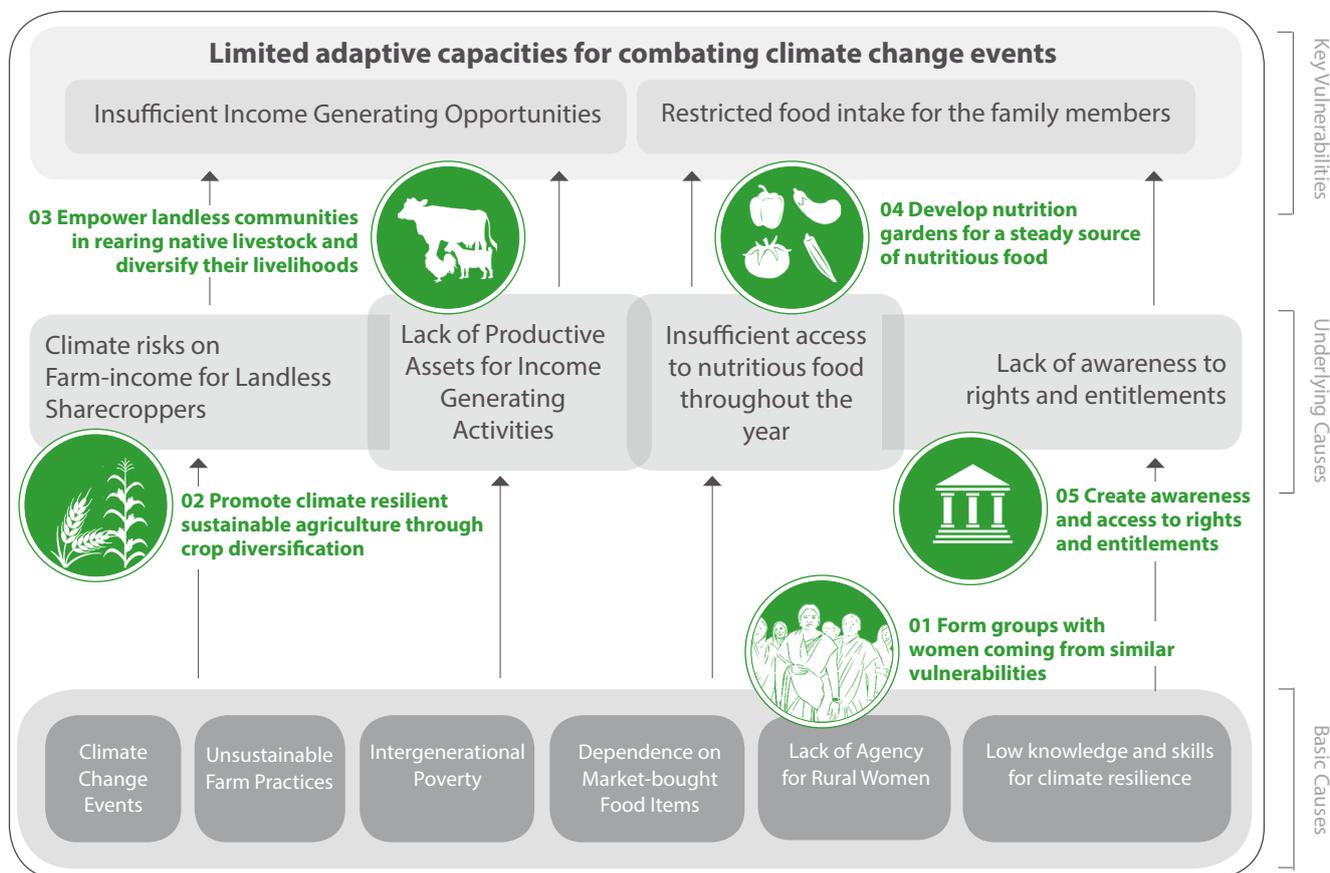
In the TECSAI program, DRCSC delves into the intricate causal chain to identify the critical underlying and basic factors snowballing into two predominant climate-induced vulnerabilities affecting rural landless communities: insufficient income-generating opportunities and uncertainties around supply of nutrition-rich food.

This causal chain mapping has helped the TECSAI program in devising tailored interventions to address the significant vulnerability-causing factors like lack of agency for rural women, unsustainable farm practices, limited access to

nutritious food, lack of productive income generating assets and lack of awareness to public social safety net schemes.

The vulnerability causal chain as outlined in Exhibit 01, also highlights five key lessons that DRCSC strongly advises policymakers to incorporate into their future policy designs. This document has expanded these five key lessons and appropriate recommendations in the next sections.

Exhibit 01: DRCSC identified the overlapping vulnerabilities of the landless communities, its contributing factors, and designed interventions to increase resilience of the program’s target households



02 Program Intervention Blocks in Birbhum District of West Bengal



About TECSAI Program

The TECSAI program, by design, intervened with 1,200 households, predominantly from tribal and scheduled caste communities, residing in the less fertile midland and upland regions of Birbhum district, who were experiencing extreme poverty. These households lacked productive assets for generating income, earned less than INR 34 per capita (in 2022), restricted their intake of food, and had limited access to financial support systems.

The key objective of the program was to empower these households through capacity building and access to assets, ultimately improving their climate resilience, especially considering their resource-poor settings. DRCSC implemented this program in two blocks of the Birbhum district, Mohammad Bazaar and Dubrajpur, spanning 8 Gram Panchayats and covering 29 villages. The program helped the target households in almost doubling their per capita income (to INR 61.4 per capita) by diversifying their livelihoods, reducing hunger periods, and increasing access to their rights and entitlements.

The United Nations estimates that,

80%

of the people displaced by climate change globally are women⁵



58 Women CSOs

Developed through the TECSAI program



3X

Increase in average worth of livestock assets by target households during the program

An initial average investment by the program of INR 9,900 per family to purchase livestock almost trebled to an average INR 28,600 per household worth of livestock assets by the end of the program



24%

Target Households started growing alternate crops in the program

The program made special efforts in influencing landowners to allow sharecroppers in transitioning towards sustainable farm practices – crucial to impact target landless communities who would otherwise have limited agency for decision-making

Lesson 1: Form women’s groups with members who have shared vulnerabilities to foster empathy and community ownership

During the TECSAI program design and execution, DRCSC identified evidences that rural women from marginalized households are disproportionately affected by climate change. For example, in the target families, women are responsible for the collection of water and climate change events can lead to increased drudgery in the process. When male members of the family migrate in search of livelihood opportunities, women stay behind with financial uncertainties. DRCSC realized that lack of women’s groups in the target villages restricts their access to

information and financial support systems which can reduce climate-induced vulnerabilities for themselves and their families. To form these groups, DRCSC carefully selected women with similar vulnerabilities to promote cohesion within the group through mutual empathy. This approach was different from forming conventional SHGs where organizations may not necessarily follow a vulnerability mapping and form a homogenous group based on vulnerability levels of the members.

Recommendation: During project implementation, use Participatory Rural Appraisals (PRA) to map overlapping climate-induced vulnerabilities of families and **form women’s groups with members having similar vulnerability levels** – making the group function more effectively.

Lesson 2: Build income generating assets for landless communities through native variety of livestock and access to ecosystem services

Landless communities are particularly vulnerable during adverse climate events due to unfavorable conditions for practicing agriculture and lack of alternative options for generating income. DRCSC identified this underlying cause and financially supported the target households to purchase **native livestock of their**

choice (like goats, sheep, pigs, ducks, hens, and cows) initially and empowered them to grow an agri-allied venture through training and access to relevant ecosystem services. DRCSC also promoted **growing fodder** in fallow lands to improve effectiveness of livestock rearing.

Recommendation: Provide seed support through grants or loans for purchasing **an initial cohort of native livestock** and enable access to ecosystem services like veterinary support and fodder. This will reduce the excessive dependence of landless farmers on sharecropping and agricultural labor for their livelihoods.

Lesson 3: Promote climate resilient sustainable agriculture through diversification of local crops appropriate to local climate conditions

Lack of land ownership among sharecropper communities often limits their influence over farm practices—such as what crops to grow and which inputs to use. DRCSC, through this program influenced landowners to allow sharecroppers in growing crops suitable for local climate conditions – a key success factor in executing this strategy, especially with landless communities. Additionally, DRCSC

enabled access to local seeds through Government departments for target households to diversify their farm practices from a predominantly growing paddy to growing different pulses, vegetables and oilseeds. DRCSC could limit this adoption to only one-fourth of their target households due to lack of enough traditional seeds.

Recommendation: Encourage forming community-based seed banks for access to traditional variety of seeds and support training services (like germination testing, seed treatment etc.) for farmers, seed bank groups and local Government – with a goal to certify local variety of seeds and crops.

At program baseline, target households used to take a maximum of **TWO MEALS per day for less than 9 months a year**. The meals were carbohydrate intensive and nutritionally less balanced.

Towards the end of the program, 98% target households take **THREE MEALS a day throughout the year** with a balanced intake of carbohydrates, proteins, healthy fats and micronutrients through vegetables.



2,638
Applications on social safety net schemes got sanctioned during the project



For 32%
Sharecropper landless households, Landowners agreed to extend the benefits of crop insurance

Lesson 4: Combat risks of food and nutrition security among landless communities by sensitizing local women in development of nutrition gardens

Landless communities have traditionally been gatherers who collect food from the wild. However, rampant deforestation has now restricted natural growing of these nutritious food thereby limiting their intake and increasing the dependency on market-bought food items – which may not fulfil all nutritional needs. The program, hence, encouraged women groups in developing nutrition gardens which can

improve food and nutrition security for the family, reducing the reliance on purchased food items. Together with increased income, nutrition gardens played a crucial role in supplementing the impact of public distribution systems and in reducing hunger days for target households.

Recommendation: Utilize locally available resources, such as homemade drip irrigation systems made from perforated pitchers or canopies to increase surface area and sun exposure, to optimize productivity of nutrition gardens without incurring additional expenses.

Lesson 5: Create awareness on rights and entitlements for landless communities, especially, around social safety nets and enable their access

Lack of awareness to rights and entitlements among landless communities and sharecroppers limit their coping mechanisms to climate induced-vulnerabilities. In this program, DRCS formed village, gram panchayat and block level CSOs to drive awareness of social safety net schemes already available through the Government

departments and facilitated the application process to avail them. In the process, the program has submitted 3,693 applications with a 71% sanction rate.

Recommendation: There is a need to **activate self-governance structures** at village, gram panchayat and block levels who can sensitize the community members on their rights and entitlements and have continuous dialogues with Government departments and enable access.

List of Abbreviations

CSO	Civil Society Organization
DRCS	Development Research Communication and Services Centre
INR	Indian Rupee
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
PRA	Participatory Rural Appraisal

References

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2. Climate Action Network South Asia (CANSA), Costs of Climate Inaction, 2020, [Link](#)
3. Council on Energy, Environment and Water, "Mapping India's Climate Vulnerability", 2021, [Link](#)
4. Internal analysis by overlaying percentage of landless households on total rural households in India

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