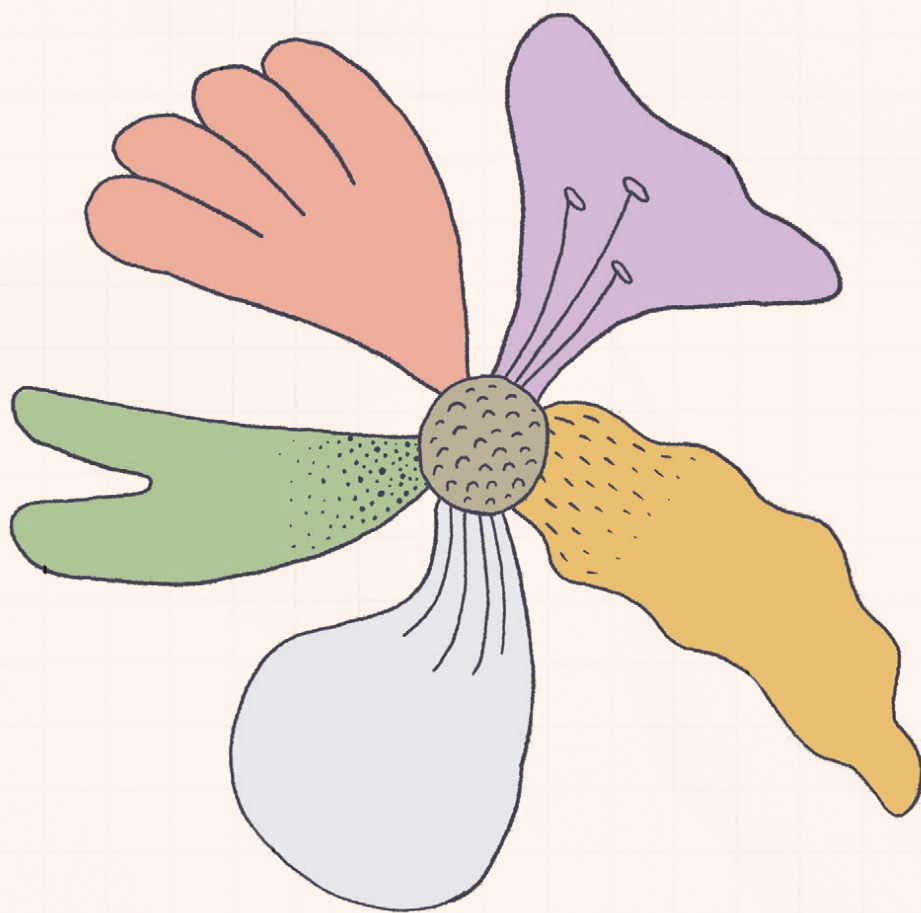


# Climate Resilient Livelihoods Led by Indigenous Women in Koraput

Learning Brief









## CONTEXT

# Climate Vulnerability in Koraput

Koraput is a tribal-majority district, located in the Southern part of Odisha. It is situated in the Eastern Ghats and is known for its rich biodiversity and cultural heritage. The district spans over 8,807 sq. kms, and is largely rural, with over 83% of the population residing in villages. According to Odisha State Government data of 2011 Census, it has a population of approximately 1.38 million, with scheduled tribes making up over 50% and Scheduled Castes about 14%. The literacy rate is below 50% and the entire region grapples with uneven access to resources. The district's economy is primarily agrarian and despite economic hardships and harsh weather, the communities continue to draw strength from the forests, which covers roughly 5th of the total land<sup>1</sup>. ***In Koraput, forests are not just landscapes — they are lifelines, sources of food, medicine, and income.***



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Over the past decade, communities in Koraput have witnessed deepening impacts of climate change on food and water security, education, and human rights. Women, in particular, report increasing challenges in farming, reduced access to forest produce, and the need to travel farther for essentials like water and firewood. These shifts have led to rising care burdens, with young girls dropping out of school, and a rise in migration and domestic violence. Many in the community directly link these hardships to climate change and its erosion of their quality of life.

Women in Koraput recall a time when forests were more abundant, diverse, and accessible. Today, shifting rainfall patterns, rising temperatures, vanishing local species, and forest clearing for farmland have profoundly disrupted their relationship with the ecosystem. These changes have reduced forest regeneration and the availability of produce, placing a disproportionate burden on women and girls. They now walk



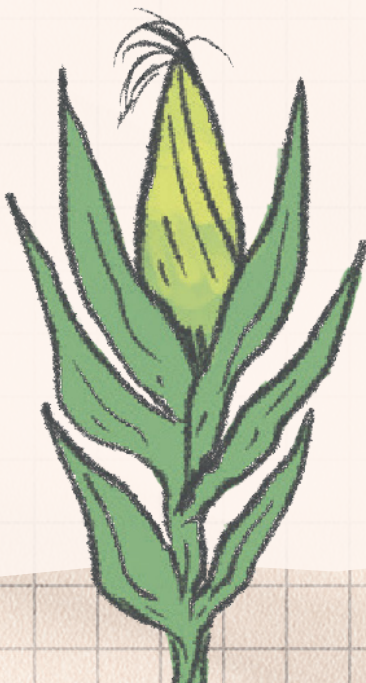
longer distances for water, spend more time collecting firewood and forest goods, and struggle with increasingly erratic farming conditions. As basic survival demands more time and effort, household tensions rise, sometimes escalating into domestic violence. The burden of care often falls on young girls, forcing them out of school to manage households in their mothers' absence, compromising their right to education and a safe childhood. Meanwhile, worsening financial insecurity is driving migration, exposing both women and youth to unsafe work, poor living conditions, and the risk of trafficking.

# Centering Climate Resilient Livelihoods

**"Climate Resilience is defined as the capacity to prepare for, respond to, and recover from the impacts of hazardous climatic events while incurring minimal damage to societal wellbeing, the economy and the environment."<sup>2</sup>**

Livelihoods are among the most vulnerable dimensions of the climate crisis, yet they are central to the survival and sustainability of both people and ecosystems. They rely on the diversity, health, and productivity of ecosystems and human labor. For many of the world's poorest and most marginalised communities, survival depends on direct access to natural resources such as forests, fisheries, and farmland. According to the Food and Agriculture Organization (FAO) of the United Nations, two-thirds of the world's extreme poor depend on agriculture for both income and food security. Yet these very ecosystems and the people who depend on them are deeply affected by the ways in which livelihoods are shaped and sustained.<sup>3</sup> The resilience of both people and nature hinges on the transformation of livelihoods to ensure they are sustainable, just, and climate-resilient.

Climate-resilient livelihoods are essential for communities to anticipate, withstand, adapt to, and recover from climate-related risks in ways that are timely, effective, and sustainable. These livelihoods not only protect and maintain people's assets and capabilities in the face of climate disruptions but also ensure the ongoing health and regeneration of ecosystems and natural resources. By strengthening local economies and promoting equity and social justice, climate-resilient livelihoods play a vital role in building a more just and sustainable future for all.





# Climate Resilient Livelihoods Led by Indigenous Women — The Koraput Model.

**Women began to assert themselves in public forums, advocate for sustainable forest practices and revive indigenous practices.**



## A. The Foundation

### 1. WOMEN'S LEADERSHIP

In ten villages, women were trained to lead a participatory commons mapping process. Though initially met with resistance and low participation, the women built trust through persistent dialogue and engagement with local networks. They created safe spaces to discuss the everyday impacts of climate change, declining forest health, water scarcity, agricultural losses and began connecting these ecological shifts to the rising burden of unpaid care work, migration, domestic violence, and the disruption of girls' education.

This process deepened their understanding of how climate vulnerability intersects with gendered labor and social inequality. By reclaiming information as a feminist practice, women challenged the male-dominated gatekeeping of land and forest governance.

### 2. MAPPING THE COMMONS AS A TOOL FOR CHANGE

The participatory commons<sup>4</sup> mapping process became more than a technical exercise; it evolved into a powerful political and ecological tool. Women used hand-drawn and cadastral maps to document the degradation and shrinking of their commons and presented these findings in Gram Sabhas, Palli Sabhas, and local development planning forums. These maps told stories of loss but also laid the groundwork for change.

Women began to assert themselves in public forums, advocate for sustainable forest practices (e.g., selective harvesting, traditional honey collection, firewood collection), and revive indigenous practices. They established local seed banks and led forest regeneration efforts such as seed-balling practices rooted in ancestral knowledge and ecological balance.



### 3. UNDERSTANDING AND IMPLEMENTING THE FOREST RIGHTS ACT

The mapping process also became an entry point to understand and implement the **Forest Rights Act (FRA)**, a key legal instrument that recognises the land and resource rights of Scheduled Tribes and traditional forest dwellers. Through this lens, women began to see their role not only as users but as custodians of forest ecosystems.

With increased awareness of their rights, women took active roles in conservation, fire management, and protection of forest boundaries. They ensured the collective rights of their villages were formally recognised and embedded into local planning processes.

This approach has transformed governance in these villages. Women now speak with authority in meetings, stop male relatives from speaking for them, and engage directly with tahsildars and other administrative officers. Their leadership has strengthened community resilience, improved local governance, revived sustainable practices, and created models for decentralised and inclusive climate action.

## B. Livelihood Diversification

In response to the growing impacts of climate change, women and communities in Koraput district, Odisha, are leading the way in diversifying livelihoods to build economic security, reduce vulnerability, and revive local economies. These efforts draw on traditional knowledge systems, sustainable resource use, and state-supported schemes, creating a multi-layered approach to climate resilience.

### 1. NON-TIMBER FOREST PRODUCE FOR INCOME AND AUTONOMY

Koraput's forests are rich in Non-Timber Forest Produce (NTFP) like kendu leaves, sal seeds, and other native species. Traditionally collected by Adivasi communities, these resources now offer renewed potential as sustainable and locally rooted income sources.

Women are actively pursuing NTFP harvesting and selling rights under the Forest Rights Act. This enables them to directly collect and market produce like kendu leaves, which have high commercial demand. Ongoing efforts support women's participation in negotiations, direct marketing, and collective bargaining, shifting power to local hands and reducing dependency on exploitative intermediaries. NTFPs provide supplementary income, strengthen food and livelihood security, and contribute to ecological stewardship.

### 2. SEED BANKS AND AGRO-BIODIVERSITY: REVIVING TRADITIONAL FARMING SYSTEMS

Women are leading the conservation of agro-biodiversity through the establishment of community seed banks. These banks preserve native seeds collected during the summer, which are then used to reforest degraded areas during the monsoons. By linking biodiversity conservation with food and nutritional security, women are sustaining traditional farming systems while adapting to shifting climate patterns.

Seed conservation is rooted in indigenous knowledge, and women ensure that benefits from these efforts are equitably shared, reinforcing the role of traditional farmers as both custodians and innovators in climate adaptation.

### 3. REVIVING TRADITIONAL LIVELIHOODS TO CURB MIGRATION AND EXPLOITATION

The climate crisis has led to the decline of many traditional livelihoods in Koraput such as weaving, dyeing, farming, and leaf-plate making causing widespread seasonal migration, especially among young women vulnerable to exploitative and unsafe labor conditions.

In the village of Dongriguda, women are reviving traditional weaving and natural dyeing practices. A centre in Koraput has been established to support this revival, offering skill development, certification, production support, and market access. The centre also houses units for leaf plate making and capacity



building, creating local employment pathways and helping reduce distress migration. Challenges remain such as the high cost of natural dyes and limited access to larger markets but with women's leadership, these hurdles are being tackled with innovation and persistence.

#### 4. LEVERAGING GOVERNMENT SCHEMES

Government schemes support communities in Koraput to promote sustainable, resilient, and inclusive agricultural development. These initiatives focus on improved soil health, increased crop production, encourage organic climate resilient farming and enhance food security. Some of the main schemes that have significant impacts are, Soil Health Card Scheme and Paramparagat Krishi Vikas Yojana (PKVY) and Rashtriya Krishi Vikas Yojana promote eco-friendly practices and balanced nutrient use and boost productivity through modern farming technologies and water management. The National Food Security Mission (NFSM) supports cultivation of pulses, coarse cereals, and commercial crops like sugarcane, to ensure diverse cropping systems. The Pradhan Mantri Fasal Bima Yojana (PMFBY) provides risk protection to farmers against natural calamities. Collectively, these schemes strive to increase farm incomes, conserve natural resources, reduce climate vulnerability, and create robust market linkages, which are leveraged by the communities in Koraput to build a more self-reliant and empowered farming community for economic resilience.

### C. Enablers of Climate-Resilient Livelihoods

#### 1. RESOURCE MAPPING AND EARLY WARNING SYSTEMS: GROUNDING GOVERNANCE IN REAL-TIME COMMUNITY DATA

Women-led resource mapping in Koraput has revealed critical patterns of forest depletion due to erratic rainfall, forest fires, and unsustainable harvesting. This process has enabled more informed and timely community-level responses, and has laid the foundation for early warning systems and local forest governance models.

Recognising that forests are not only ecological commons but also cultural and spiritual lifelines, women are integrating indigenous ecological knowledge with formal planning processes. They have established village-level forest protection committees that are now central to local forest governance. These committees:

- ➔ Deploy community forest watch teams
- ➔ Operate early warning systems for forest fire prevention and mitigation
- ➔ Maintain active coordination with Gram Sabhas and the Forest Department

Through these interventions, women are reclaiming agency over forest governance and creating replicable community-led models. The success of these systems has inspired neighbouring villages to adopt similar participatory mechanisms, proving the value of decentralised and data-driven forest management as a resilience strategy.

#### 2. RENEWABLE ENERGY

While conservation is essential, communities in Koraput understand that energy access is a key enabler for economic resilience. Climate variability and frequent power cuts severely affect small-scale enterprises, particularly those dependent on temperature control, such as poultry farming.

In Narayanpatna village, an initiative by SELCO Foundation and SPREAD is linking renewable energy solutions with climate-resilient livelihoods. The approach is built on community consultations and grounded in actual livelihood needs, not just domestic consumption. Key components include:

- ➔ Solar-powered infrastructure (e.g., 2000-watt units) for poultry, agro-processing, and farm-based enterprises
- ➔ Co-financing models: 50:50 for general users, 70:30 for persons with disabilities
- ➔ Integration with government schemes to make renewable energy solutions more affordable and scalable



The model demonstrates that when clean energy is aligned with income generation, uptake increases significantly. Households view solar energy not only as an ecological choice but also as a viable investment in economic security.

However, technical challenges remain, such as the need to adapt solar systems for use with high-heat bulbs essential for chick rearing. Addressing these bottlenecks is essential for scaling the model and ensuring that renewable energy becomes a core enabler of resilient rural livelihoods.

Together, community-led mapping, early warning systems, and renewable energy integration represent critical enablers for climate-resilient livelihoods in Koraput. Women's leadership and local knowledge continue to be the foundation of these innovations, ensuring that solutions are both context-responsive and future-focused. These efforts illustrate how ecological governance, technological adaptation, and inclusive policy access can work together to build resilient rural economies that are both sustainable and just.



# Reflections & Learnings

## 1. WOMEN AS DRIVERS OF CLIMATE RESILIENT LIVELIHOODS

Women from tribal and indigenous communities are not just participants but drivers of change. Their leadership in commons mapping, dialogue with authorities, and revival of sustainable practices is central to Koraput's climate resilience efforts. Climate resilience is being constructed not only through environmental action but through shifts in power. Women who were earlier excluded from land and resource governance are now occupying public and political space with tangible results in local planning and policy inclusion.

## 2. MAPPING AS POLITICAL PRACTICE

Participatory commons mapping of natural resources has created space for community voices, especially women's, which is now seen as legitimate sources of knowledge and advocacy. It enabled data-backed dialogue with local governance and revived local ecological rituals and traditions. Women now access, understand,

and use administrative data (village maps), hold block and panchayat officials accountable, and insert their voices into GPDP (Gram Panchayat Development Plans), which were once male-dominated domains.

## 3. REVIVING INDIGENOUS ECOLOGICAL WISDOM

Women are reclaiming traditional ecological knowledge, such as traditional weaving, dyeing and leaf plate-making. These practices are now shaping new frameworks of sustainable living and forest conservation.

## 4. CLEAN ENERGY AND LIVELIHOODS AS TOOLS OF ADAPTATION

Renewable energy and livelihood diversification help in building economic resilience and address the issues of migration and exploitation. Solar-powered enterprises (like poultry units, sewing centers, and tube wells) demonstrate how clean energy intersects with livelihood generation to adapt to changing climate conditions.

## 5. REFRAMING DEVELOPMENT THROUGH GENDERED KNOWLEDGE

Gendered knowledge is shifting development paradigms. Women's everyday ecological knowledge is being translated into actionable plans. They are pushing past traditional "beneficiary" frameworks and repositioning themselves as planners, negotiators, and drivers of climate resilience.





# Key structural challenges to continue to focus on...



## SYSTEMIC EXCLUSION AND GENDERED GOVERNANCE

Despite doing the majority of forest-related work, women remain excluded from land titles, forest governance, and official recognition. Their knowledge is often dismissed as informal “gossip,” reinforcing patriarchal norms in both state and community institutions like Gram Sabha, Palli Sabhas and Panchayats.



## ECOLOGICAL DECLINE DEEPENS GENDERED LABOUR AND LIVELIHOOD INSECURITY

Despite policy pushes for NTFP rights like Kendu leaf trade, delayed state procurement and procedures along with distrust in government systems due to corruptive practices pushes communities towards exploitative middlemen.



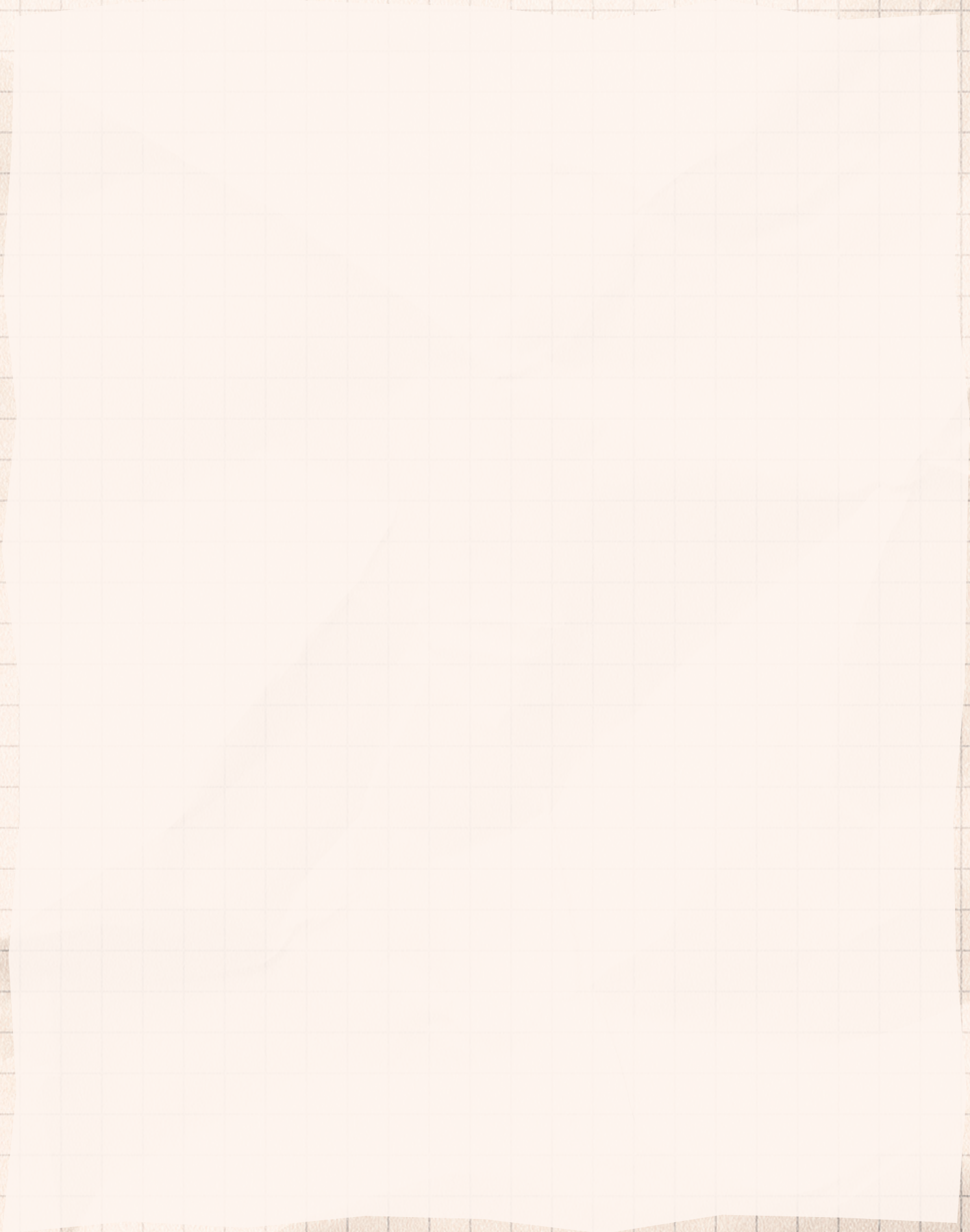
## MARGINALISATION DRIVES MIGRATION AND INTERGENERATIONAL CYCLES OF POVERTY

With shrinking traditional livelihood options and unreliable state support, migration becomes a necessity rather than a choice. While both men and women are pushed to migrate, young women face heightened risks ranging from unsafe work conditions to trafficking. As a result of increased burden on women, girls are pulled out of school for caregiving work, locking families into cycles of gendered poverty and limiting future agency across generations.

## References

- 1 District at a glance: Koraput, Koraput. (n.d.-a). <https://koraput.odisha.gov.in/about-district/district-at-a-glance>
- 2 Mehryar, S. (2024, August 15). What is the difference between climate change adaptation and resilience?. Grantham Research Institute on climate change and the environment. <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-difference-between-climate-change-adaptation-and-resilience/>
- 3 Bercilla, J. D. (2020). Climate-resilient, sustainable, and low-emission ... <https://actalliance.org/wp-content/uploads/2021/02/Climate-Resilient-Sustainable-and-low-emission-livelihoods.pdf>
- 4 Commons are resources that are collectively owned, shared, or managed by a community rather than by individuals, corporations, or the state. These resources are governed by shared norms, practices, and systems of stewardship that prioritise long-term sustainability, equity, and mutual responsibility.







# About the organisations



## **Society for Promoting Rural Education and Development (SPREAD):**

SPREAD is working in Southern Odisha and is committed to facilitate the empowerment of marginalised communities so they have access to land, food and education. They have been facilitating work on gender and climate change in Odisha with a focus of building climate resilient livelihoods led by indigenous women.



## **Asar Social Impact Advisors:**

Asar works in the social and environmental impact space in India and is dedicated to fostering collective impact in addressing pressing environmental challenges, particularly under the overarching scope of climate change. Asar's gender and climate programme is supporting this initiative in Koraput which is co-created by SPREAD and the women leaders of the district.