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Chilika Lake and Climate-induced Migration: Bridging Legal and Policy Gaps for Displaced Communities



Bushra Ali Khan
Master's in Migration and Diaspora Studies, Class of 2021
The School of Oriental and African Studies

EXECUTIVE SUMMARY

Projections of climate change impacts suggest that it will considerably exacerbate forced migration (Almulhim et al., 2024). As environmental stressors intensify, they increasingly intersect with existing socio-economic vulnerabilities, particularly in ecologically sensitive regions.

One such area is the Chilika Lake region in Odisha, Eastern India – an intricate socio-ecological system where the livelihoods of local communities are deeply tied to seasonal cycles, water salinity levels, and fishery productivity. Rising sea levels, regular occurrence of cyclones, and a thinning ecosystem are some of the issues that hinder the development of nearby communities and result in drastic internal migration due to economic necessity (Brown, 2008). However, the lack of a policy to address climate-related displacement in Indian law leaves internally displaced climate migrants from the Chilika region unprotected and vulnerable.

This policy brief addresses the ongoing socio-ecological crisis in the Chilika Lake region, where communities face both environmental degradation and exploitation due to the absence of legal protections. It identifies gaps in India's disaster relief framework and offers policy recommendations to ensure legal protection and access to rights for displaced populations.

INTRODUCTION

Climate change is forcing more and more people to leave their homes, as rising sea levels, extreme weather, and environmental damage make it impossible to stay. Millions are at risk of displacement, with no choice but to seek safer ground (Nair & Nayak, 2023). According to the World Bank (2021) and the latest UN reports (2024), failure to address climate change is expected to make South Asia, especially India, one of the hardest hit regions, which will increase the number of climate migrants over time. Additionally, coastal communities, river dwellers, and other people depending on shallow and sensitive ecosystems are expected to be the ones facing the dire consequences (Das & Swain, 2024; Subramanian et al., 2023). Over and above all, intense weather shifts are now violent phenomena with alarming frequency.

The locals around Chilika Lake, known for its brackish water, are famous for this devastation and destruction (Shankar, 2012). The rise of cyclones like Phailin in 2013 and Fani in 2019 have led to infrastructure destruction alongside loss of livelihood for thousands (Nayak & Nandimandalam, 2023). Additionally, the average temperatures leading to higher sea levels has resulted in saltwater irrigation which destroys crops leading to barren land during the dry season (Krishnan, 2023; Sahu et al, 2014). Research revealed that the fish stock in Chilika has reduced by 30% over the last ten years which has crippled over 200,000 fishers and their families (Nair & Nayak, 2023; Sangomla, 2023). Despite these mounting challenges, affected communities lack access to targeted legal and policy support, leaving them increasingly vulnerable to displacement.

The 1951 Refugee Convention does not allow for people to claim refugee status for environment-related reasons, meaning that climate affected people do not receive any form of international protection (Abate & Bhardwaj, 2024; Apap & Harju, 2023). Additionally, India's national policies are similarly limited. They are primarily designed to respond to sudden-onset disasters and do not address the slow-moving effects of environmental change, such as rising sea levels or salinisation. These policies also lack provisions for long-term social support, rehabilitation, or planned resettlement for climate-displaced persons.

This policy gap has several consequences. Displaced families from the Chilika Lake region often migrate to urban areas in search of security and livelihood (UNICEF, 2022). However,

without formal recognition or state support, migrants struggle to access essential services such as housing, healthcare, and education (Bhattacharya, 2020; IIHS, 2016). They are frequently pushed into informal settlements where infrastructure is inadequate, and public services are difficult to access (ibid). This marginalisation reinforces cycles of poverty and exclusion, making it difficult for displaced populations to integrate into the social and economic fabric of cities (Silchenko & Murray, 2023; NDMA, 2022; Nayak & Berkes, 2010).

ENVIRONMENTAL AND HUMAN DIMENSIONS OF DISPLACEMENT IN CHILIKA LAKE REGION

Environmental Stressors

- Cyclone Vulnerability:
  The coastline of Odisha has a moderate exposure to cyclonic activity emerging from its geographical position along the Bay of Bengal (Das & Das, 2024). Extreme climatic changes have aggravated the intensity and frequency of cyclones, and these changes are poised to exacerbate forced migration in and around the region of Chilika Lake (Muduli, Barik, Nanda, & Pattnaik, 2022).

- Farmland Salinisation:
  Saltwater inland intrusion due to climate change in the vicinity of Chilika, is arguably one of the most pernicious issues in this area. The phenomenon happens due to constant rise in sea level and increased frequency of storm surges. According to Down To Earth (2023), a leading Indian magazine on climate and sustainability, the agricultural land surrounding the region has become increasingly saline, rendering it barren and unproductive. In certain areas near the lake, soil salinity levels have been recorded with electrical conductivity values ranging from 6.94 to 16.86 dS/m, indicating high salinity that adversely affects crop growth (Ramasamy, Singh, Nayak, & Dharumarajan, 2018). This has had a direct impact on local livelihoods, particularly for farmers who previously relied on paddy farming – the cultivation of rice in flooded fields. Paddy crops are highly sensitive to saline conditions, as salt in the soil inhibits seed germination, stunts plant growth, and significantly reduces yields (Grattan, Zeng, Shannon, & Roberts, 2002).

- Declining Fisheries:
  According to Kumar & Pattnaik (2012), over 200,000 fishers depend on Chilika Lake for their livelihoods. However, environmental changes have significantly impacted this vital resource. Between 2016–17 and 2020–21, total fish production in the lake declined from 12,714.95 tonnes to 9,406.0 tonnes, representing a decrease of approximately 26% (Sethi & Patra, 2021). This reduction is attributed to factors such as increased salinity, pollution, and erratic monsoon patterns, which disrupt natural breeding cycles and lead to habitat loss. Consequently, fishing has become an unsustainable source of income for many. A socio-economic study revealed that the average monthly income of fishermen households was ₹3,721, significantly lower than the ₹4,117 average for non-fishermen households (Samal & Meher, 2003).

Human Impact

- Forced Migration:
  According to a study (Nayak, 2017), rural-to-urban migration patterns are not adequately captured by official records. As a result, a significant number of these migrants are rendered invisible and face difficult living conditions in urban areas, with many working in the informal sector, including

construction and domestic work. Further, the arrival of these internally displaced migrants into urban areas adds to the already overburdened infrastructure and overstrain public services and becomes a socio-economic burden on both migrants and host communities (Alverio et al., 2023).

- Loss of Cultural Identity:
  Migration of populations from and around the Chilika Lake is a cultural dislocation. The lake has historically been surrounded by fishing and farming communities, and individually these communities had a distinct socio-cultural fabric built around the custom of ecological knowledge (Rathoure, 2024). In the absence of innovative and effective policy actions, forced displacement will continue to fragment families and communities. This disruption weakens the social fabric and threatens relationships that are rooted in a complex and evolving environment. Such declining relation with the environment entails a shift characterised by reduced rituals, festivals, and oral traditions once associated with the ecosystems resulting in the youth being channelled toward urban life.

LEGAL GAPS IN CLIMATE-INDUCED MIGRATION

The Indian legislative system does not have any draft provisions for people displaced due to climate change or environmental issues. Even with the increasing risks of climate disasters, there is little planning for the displaced demographic at the national level.

The Inter-State Migrant Workmen Act of 1979, which manages migration between states, does not consider climate migrants nor has any amendments been made to mitigate this issue (Chandani, 2021). Some forms of rapid onset displacement such as those caused by cyclones or floods do occur, but they are dealt with at the state-level by existing disaster management policies. Displacement caused due to slow onset events – like rising sea levels or desertification – are not catered to.

The primary sub-national policy framework, India's State Action Plans on Climate Change (SAPCC), does provide some attention on the construction of infrastructure and other climate adaptability projects, but does little in the long term in aiding or facilitating organised resettlement (Kumar, 2018; Gogoi, 2017). This neglect can be attributed to several factors. First, the SAPCCs largely emphasise mitigation and sectoral adaptation strategies rather than community-level displacement or relocation (Atteridge et al., 2012). Second, climate-induced displacement remains an under-recognised and poorly defined category in policy discourse within Indian policy circles. Since there is no clear legal or administrative category for climate migrants, governments are not institutionally obligated to address their needs, making it easier to overlook them in state-level adaptation planning (Chaturvedi & Doyle, 2015).

Key gaps include:

- Inter-state climate migrants are not recognised under international refugee law, as the 1951 Refugee Convention does not cover those displaced by environmental factors. This leaves such populations, including those from Chilika, outside formal protection regimes.

- India lacks a dedicated national framework for climate-induced migration. Existing disaster response mechanisms are short-term and relief-oriented, failing to address long-term displacement, resettlement, and livelihood restoration.

- Communities displaced from Chilika face severe livelihood disruptions, with limited state support for transitioning to

alternative employment. Migration to urban centres results in informal and precarious work with minimal protections.

- Current climate adaptation frameworks, including SAPCCs, often adopt top-down approaches that exclude affected communities from meaningful participation. This overlooks the adaptive knowledge and lives experiences of vulnerable groups like the Chilika fishers, leading to poorly contextualised and ineffective interventions.

POLICY RECOMMENDATIONS

- Recognise Climate-Induced Migration in Law and Policy
  - India should introduce a comprehensive legal framework to identify, protect, and support climate-displaced persons. Such legislation must include mechanisms for relocation, legal identity, housing, land rights, and access to welfare programs.
  - India, alongside other Global South countries, should push for the development of a new international legal instrument or a multilateral platform to recognise climate-induced migration. This is crucial since most affected people are invisible under existing international norms.

- Livelihood Restoration Programs
  - Implement locally tailored livelihood programs such as saline-resistant paddy farming, sustainable aquaculture (e.g., integrated fish-rice systems), and eco-tourism to reduce economic vulnerability. In Chilika, where over 200,000 people depend on fishing, such alternatives are critical as fish stocks decline (Nair & Nayak, 2023).
  - For those who move to urban centres, provide skills training in construction, services, and digital labour that match market demands in cities like Bhubaneswar or Chennai, where many displaced families from Chilika currently migrate.

- Community-Led Adaptation and Participation
  - Involve fishing and farming communities in decision-making processes for SAPCCs and related adaptation programs. The Chilika case shows that top-down adaptation schemes often ignore the lived realities and priorities of those most affected.
  - Communities around Chilika have developed adaptive practices – such as seasonal fishing calendars and knowledge of monsoon patterns – that can be integrated into official planning frameworks, making them more grounded and contextually effective.

- Address Political Inaction and Implementation Challenges
  - Many displaced people, including those from Chilika, are not officially recorded as migrants. This lack of disaggregated data leads to policy invisibility.
  - Allocate earmarked climate adaptation funds under schemes like the National Adaptation Fund for Climate Change (NAFCC) specifically for relocation and livelihood support. Improve interdepartmental coordination between the environment, urban development, and labour ministries.

CONCLUSION

Despite growing evidence of climate-induced displacement in ecologically fragile regions like Chilika, political inaction persists. One key reason is that displacement caused by environmental stressors remains an ambiguous and politically inconvenient category. Implementing long-term resettlement or livelihood

restoration programs often requires inter-departmental coordination, budgetary commitment, and land redistribution – all of which are politically sensitive. Moreover, there is a prevailing tendency to frame climate adaptation in technocratic terms – emphasising infrastructure over people – leading to the exclusion of displaced communities from decision-making. The absence of reliable data on internal displacement due to slow-onset events like salinisation further limits accountability.

To address these barriers, climate migration policies must be backed by strong institutional mechanisms, transparent data systems, and meaningful community participation. The *mantra* of 'leaving no one behind' can only be realised through a firm dedication to solidarity both nationally and collectively, in the face of the crisis.

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