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Working Document

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The Potential Threat of Climate-Induced Migration: Coping Strategies & Mitigation Policies

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Policy Action | Research Advocacy | Citizen Empowerment | Democratic Engagement

LexQuest Foundation

About the Organisation

LexQuest Foundation (LQF) is an independent, non-profit, research and action organization, established in 2014, in New Delhi. We are striving to create, advocate, and implement effective solutions for a diverse range of development issues.

To endorse participative governance, we engage with a broad spectrum of stakeholders, from various sections of the society, to ensure that policy-making remains a democratic process. We utilize pragmatic and futuristic research to disseminate actionable knowledge to decision-makers, experts, and the general public.

Our key activities include capacity and skill-building workshops, policy advisory programs, public outreach, and stakeholder consultations. We collaborate with the government, other organizations, and individuals for impactful policy formulation and execution.

By employing sustainable and equitable solutions through our multidisciplinary, intersectional initiatives, and programs, we are constantly working towards creating empowered communities.

Background

We believe that in the world's largest democracy, effective public participation can turn policymaking into a transparent, accountable, and smooth process where the government can acknowledge issues that the people heed and demand to be resolved. We highlight the significance of this aspect in policymaking, through our initiative, Civic Architects: The Policy Workshop. The said initiative is focussed on people eager to make a difference by changing the discourse of public participation and demystifying the idea of active citizenry. At this year's edition of the Civic Architects, in collaboration with the Economics Society, SRCC, Delhi, we took up the subject of Climate Change & Migration.

During the Climate-Induced Migration policy workshop organised by LexQuest Foundation at SRCC, New Delhi

India, a country already tormented by chronic poverty, developmental problems, and perils of overpopulation, is further burdened with acute climate migration internally as well as from neighboring countries. **In the case of internal displacement, rural areas characterized by a loss of land productivity, and where conditions of drought and other cases of severe floods prevail, usually give rise to mass-migrations of people to urban areas in cities.** For instance flooding in Uttarakhand and Sundarban region and droughts in States like Gujarat with majorly arid topography have led to migration towards the metropolitan cities of Delhi and Mumbai. According to data collected by the Internal Displacement Monitoring Centre between 2008-16, 200 million people have been displaced worldwide and in India 1.5 million people are classified as internally displaced every year.

In a training cum discussion session comprising reading led deliberations, exercises, and activities, we engaged with young policy students, professionals, and enthusiasts on the aforementioned policy issue. The session was aimed at **revealing the policy gaps of climate-induced migration within India and enabling young professionals to recognize and identify actionable policy solutions through means of collective policy action**. This Working Document is an outcome of our research, in the follow up to the said Policy Workshop. It is aimed at addressing the compelling concern of Climate-Induced Migration in India and contours effective policy suggestions that can assist in the identification of internal migrants to address the concerns of poor service delivery and social security policies in the wake of climate change.

Current Status of Climate Migrants

Image Source: Climate Visuals

The climate change crisis has unequivocally wreaked havoc in the world with sea levels rising, desertification, droughts, etc., as a consequence of which the world faces a nuanced crisis of climate migrants and refugees. It has resulted in natural disasters such as floods in countries like Bangladesh, Nepal, and India, and land degradation in

regions such as East Africa and some regions in India, which have forced communities living in these regions to migrate to other regions in search of settlement and livelihood. The crisis is exacerbated as the 1951 Refugee Convention and 1967 Protocol do not recognize climate migrants as refugees, making legal protection of these migrants by any domestic and international law remote. They are not entitled to the same rights as religiously and politically persecuted refugees even though according to a [report by the International Organisation for Migration](#) (IOM) more people are displaced in any given year by natural disasters than conflict and violence.

The IOM defines climate migrants as 'persons or groups of persons who for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their homes or choose to do so, either temporarily or permanently and move either within their country or abroad.' It encourages the effective use of all existing bodies of domestic, regional, and international laws on displacement and disaster management to find ways of accommodating and protecting environmental migrants. A heated debate has taken form to determine correct terminology for those who are persecuted by climate. While 'climate refugee' can be problematic as the 1951 Convention does not include those persecuted by climate, it is believed that people express more empathy towards the connotation of the word 'refugee' as someone who has lost their homeland suffering acute distress and thus is more willing to aid them. However, it should be noted that **many developed countries and even UNHRC are unwilling to adopt the term refugee as they believe they will have to provide the same protection to these migrants as politically persecuted refugees and UNHCR is already overburdened with the current refugee population it is working to provide rehabilitation for**.

Present Approach to Climate-Induced Migration

Image Source: The Wire

In India, as many as 1.5 million people are classified as internally displaced annually, many of them due to climate change. An analysis of the United Nations Global Compact Report (United Nations, 2019) on climate migrants, highlights the priorities of countries when it comes to environmental migration. Their primary concern is to "minimize the adverse drivers and structural factors that compel people to leave their country of origin", in particular the "natural disasters, the adverse effects of climate change, and environmental degradation".

In other words, the main priority is to find solutions that allow people to stay in their homes and give them the means to adapt to changing environmental conditions. This

approach aims to avoid instances of **desperate migration and its associated tragedies**. In places where the climate change impacts are too intense, the country is expected to endeavor to enhance the flexibility and availability of resources and pathways for migration. Migration is thus considered as **an option of last resort**, but it should be an option available and planned, in case it is required. A last resort measure is to conduct planned relocations of the population – this means organizing the relocation of entire villages and communities away from areas bearing the brunt of climate change impacts. As can be imagined, for countries like India with a large population at risk of becoming climate migrants, this approach is less plausible and presents an impractical policy solution that would often not be implementable in instances of mass-scale climate-induced migration.

Policy Approach to Climate-Induced Migration in India

Image Source: The Weather Channel

India is one of the most exposed regions to climate change and natural disasters such as frequent floods, droughts, sea-level rise, etc. Though the environmental challenge is inevitable, India is also struggling with extreme poverty and developmental challenges which are prioritized in the country's policy framework to ensure economic growth. Therefore, even though India supports sustainable development goals, it is hesitant to devise policies for accountability of climate change within the country and the consequences of human migration that arises from it.

There is a narrative that paints the developing world as one with weak adaptive and

resilience strategies to cope with climate change and even as they would be the worst affected by it. In a bid to be seen as a 'strong global player' India refuses any such labeling. That being established, the Indian policymakers have long tried to evade the question of even internal climate migrants and provide better options for them through social security policies. India's National Action Plan on Climate Change 2008 does not even cover the issues of climate migrants and displacement. Indian policymakers claim socio-economic issues like poverty alleviation are a priority and that if these are dealt with and mitigated, the problem of internally displaced persons will not arise. It is high time to acknowledge that the dangers posed by the impact of climate change are inevitable and the current policies aimed at mere adaptation to natural disasters are not as effective and not enough to deal with the problem.

It has been argued by senior researchers that rather than separating climate migration as a new issue that India needs to address, it should be effectively placed into the current debates regarding sustainable development, poverty alleviation, and economic growth. It is believed that in India, the political agenda is unlikely to address climate migrations if the issues are entangled in debates around climate security and climate change. Drawing connections between climate migration and rural development, disaster management, community resilience, and preventive adaptation will be beneficial in this way, as at least those flocking to cities from their destroyed and barren villages in search of livelihood will be taken into consideration for extending basic amenities and security. One of the few schemes directed towards mitigating the adverse effects of climate change is The National Adaptation Fund for Climate Change (NAFCC). The projects under this central government scheme work to support various adaptation activities/programs aimed at aiding the sectors related to agriculture, animal husbandry, water, forestry, tourism, etc. By employing such a

multi-directional approach to the broader issue of climate migration, the scheme effectively addresses the profound challenges and problems that take shape as consequences of climate change.

It is also important to note that some States in India will be more affected due to climate change than others. Comparing the average temperatures in 2009-18 to 1950-80, pockets of Rajasthan, Gujarat, Tamil Nadu, Kerala, and the North-East have recorded an average temperature of 1-degree Celsius higher than has been historical, making these the Source States of climate migrants. But according to a study by the World Bank a simple change in temperature does not result in climate change repercussions, but other factors such as electricity, water supply, roads, and especially if the region is largely agrarian, can cause such migrations. Thus States in Central India are the most susceptible to climate change as they lack infrastructure and are largely agrarian, a perfect example of which would be the Vidarbha region in Maharashtra. According to the 2011 census, out of 16,793 villages in Uttarakhand, 1053 have no inhabitants and 405 villages have less than 10 residents after the 2013 floods.

Climate-induced natural disasters and impacts such as flooding, drought, desertification are on the rise in India. Inter-State and Intra-State displacement in the quest for a better life in States like Maharashtra, Gujarat, Madhya Pradesh and Andhra Pradesh has led to rapid urbanization. Inadequate infrastructural facilities have led to migrants collectively living in crowded temporary shelters with low access to sanitation, drinking water, and non-existent healthcare facilities. With a lack of educational qualifications and other skills, the migrants end up having to work as **unskilled laborers in construction and manufacturing industries earning low daily wages and sometimes in the absence of employment, no wages at all**. The **absence of medical insurance and social protection schemes** makes the migrants

more vulnerable to nature's fury in the cities. The aforementioned then undoubtedly also poses an urban development challenge to tackle the sudden surge in urbanization due to the destruction of the rural environment.

Major Sources of Climate Migration in India

Cyclones in Odisha

Image Source: The New Indian Express

Odisha, one of the most disaster-prone States in India, experiences a regular prevalence of extreme weather conditions like floods, drought, heatwaves, and cyclones. The Indian Meteorological Department revealed that <u>48.19% of the total number of cyclones</u> that hit the eastern coastal areas during 1891-2007, occurred in Odisha, while at least 15 Districts in the State were affected 10 times by cyclones and

floods between 1995-2010 alone. Cyclone Fani hit the coast of Odisha on 26th April 2019, killing 89 people and leaving damage of $8.1 billion, and affecting 16 million people. Several homes were uprooted, boats and nets destroyed and power grids damaged. The cyclone also led to a loss of livelihood of people like the fishermen community or the people living near the coastline. Several people in an attempt to survive, migrated to other States like Maharashtra, Tamil Nadu, Gujarat, and Kerala to find jobs, mostly as casual workers in farm labor, construction work, non-contractual industrial labor in cotton and textile industry in Maharashtra, gems, jewelry and chemical industry in Gujarat, amongst several others. Dependent largely on climate-sensitive livelihoods like fisheries, farming, etc., the population in Odisha, especially vulnerable groups, are continuously forced into penury, as they struggle to adapt to these contrasting and consecutive climate calamities, worsened by the lack of sustainable and long-term livelihood solutions.

Floods in Assam

Image Source: Conde' Nast Traveller

In July 2019, heavy downpour in the Northeast region led to heavy floods in the river Brahmaputra and its tributaries, affecting 2.65-5 million lives in the State of Assam and claiming 81 lives, affecting even the animals in the Kaziranga National Park. Besides heavy rainfall, another reason for frequent floods in Assam is the Brahmaputra River. As the northeastern region is also earthquake-prone, it fails to let Bhramaputra acquire a stable character. Besides the natural factors, man-made factors like deforestation, habitation, and growth of the population in the catchment area have aggravated the situation.

The flood of 2019 led to damage of over 2 lakh hectares of crop and critical infrastructures like roads, bridges, public utilities, and hospitals. This flood is a frequent phenomenon and according to Central Water Commission data (1953-2016), on an average 26 lakh people are affected every year in Assam- losing over 10,000 cattle and over Rs 7 crore worth of houses destroyed, total annual damage summing up to Rs 128 crore.

This climate-induced issue has compelled people to shift from the traditional forms of agriculture, which are crucial to the sustainable livelihood in the region, towards alternative sources of livelihoods that have proven to be less reliable over time. According to Assam State Disaster Management Authority's (ASDMA) survey, through Village level discussions and District level stakeholder meetings, it has been observed that farming has traditionally been the predominant livelihood option in the flood-affected regions of the State. The climate distortions in the form of recurrent floods, erosion, and siltation, and the resultant low farm productivity have deeply troubling socio-economic implications for the local populace of Assam, especially for the indigenous communities dependent largely on the river island. According to a 2012 study conducted by the Centre for Environment, Social and Policy Research (CESPR), thousands of people in Assam lost their livelihood options particularly because of heightened flood and erosion risks to farmlands. The situation is further exacerbated because of the low adaptive capacity of the State, forming a major push factor for people to migrate to cities or neighboring urban centers for alternative livelihood options.

Droughts in North Rajasthan

Image Source: Scroll.in

Known to be the largest State of India, Rajasthan is characterized by low and erratic rainfall, drought proneness, and poor agricultural production. An already water deficit State wherein nearly 70 percent of the area has been classified as arid and semi-arid region, 60% of Rajasthan is further expected to experience acute water scarcity conditions during 2040-61, according to India's initial National Communication to the UNFCCC. Occurring once in every two or three years, droughts in the region cause extreme stress to fauna due to limited seasonal grazing resources. The Thar Desert region- the most favorable hub for industrial processes, is also most vulnerable to the changing global climate, affecting not only the human population but also the fauna of the region. The recurrent droughts, rise in surface temperature, and excessive loss

of water, while drastically impacting the water resources, also have cascading effects on other dependent sectors, resulting in an unprecedented loss of lives. The changing climate puts pressure on the already fragile resource base, limiting livelihood options for the local people, which forces them into relentless migration to urban settings, especially affecting the rural population which depends largely on animal husbandry. The severe 2002 drought in Rajasthan, affected nearly 40 million people and 50 million livestock, forcing many to migrate to urban areas. The already scarce water and food resources are made worse by the environmental degradation induced by the tourism industry.

Droughts in Saurashtra region of Gujarat

Image Source: The New York Times

Dealing with the threat of soon becoming an "environmental refugee" zone, Saurashtra is a region in Gujarat that has an arid climate and faces continuous rainfall deficiency and famine every third year. Around 60% of the rainfall in the State is of an extremely unprecedented and unequal nature. Inadequate water resources, high temperature, delay in monsoon, remain one of the biggest threats to the livelihood and socio-economic development of the region. Studies reveal that the Saurashtra

region constitutes 25 million people, out of the total 100 million, affected by drought in India. The impact of the spatially and temporally unequal rainfall on the vegetation health is visible when we see that the agricultural produce in Saurashtra is heavily compromised because of the non-availability of water resources, with a few noted exceptions of Narmada and Tapi rivers. The water table has significantly fallen because of over-extraction of the limited ground-water resource in areas where there is no source of alternate irrigation. This has in turn put tremendous stress on the cultivated crops and water supplies.

Such adverse climatic conditions affect the majority of the rural population of the region. **The diminished resources of water and grass, consequently, push the poor and the farmers into financial losses and forces them to undergo mass migration to cities, to work as construction labor, or agriculture wage labor in water-surplus districts.** The cattle rearers migrate to other green belts of the State or the neighboring States in search of food and water for their animals. Additionally, **the lack of assurance from the government for alternate employment during droughts worsens the already fragile condition and results in collateral damage to the environment and people of the region**.

Man-Made Disasters of Uttarakhand

Image Source: The Atlantic

Uttarakhand, an area situated in the central region of the Himalayas, continues to reel under frequent natural hazards in the form of incessant rainfall, flash floods, avalanches, landslides, etc. Occurring usually because of the region's geological instability, multiple structural discontinuities in the rocks, and high atmospheric precipitation, such extreme weather events engulf the region's vulnerability year after year. In June 2013, extreme rainfall triggered floods and numerous landslides in Uttarakhand, wreaking havoc and causing widespread damage and affecting thousands of pilgrims and tourists. Farming in the area, largely dependent on rainfall

and its vagaries, has been impacted significantly because of the aforementioned factors along with a delayed monsoon, turning the agricultural lands barren.

A study conducted by the Wildlife Institute of India (WII) showed that in the last decade alone, farming of 30 traditional crops has been abandoned in Pithoragarh, a town in Uttarakhand, due to climate change and migration, while an overall 28% decline has been noticed in the area of cultivation in the District. Such climatic conditions understood to be products of unregulated tourism and unplanned construction, occur every year in the State, causing massive loss of life, infrastructure, agricultural lands, etc.

For decades, the inhabitants of the region have found no respite from such climatic events. Left with no option but to undergo mass migration to cities in search of a better quality of life, the human workforce required for agricultural operations in the hilly terrain is subsequently reduced by a great number. Recent reports show that more than a third of Uttarakhand's rural and hilly area residents have migrated out in the last two decades. As per the 2011 Census, 1053 villages of the total 16,793 have no inhabitants. This steady stream of migration has resulted in hundreds of "ghost villages", symbolic of the deteriorating environmental condition of the region and the subsequent plight of the migrant population.

Points of Concern

Image Source: Yale Environment 360

India being an already overpopulated country, where most of the population is living in conditions of a severe resource crunch has very limited space and resources available to accommodate people migrating from countries like Nepal and Bangladesh. Climate migration from neighboring countries like Bangladesh and Nepal occurs due to flooding caused by landslides and heavy rainfall. More than 5 million people inhabit flood and cyclone-prone areas in Bangladesh, who eventually due to proximity will be seeking asylum in India. While a human rights-based approach will argue for providing refuge and space to external climate migrants, the **urban poor who are internally displaced, often facing violence and exploitation on the streets**

are evidence of the lack of efficient resource allocation for the internally displaced population in India. The dilemma that arises here is how do we as a country and humanity balance the concepts of human rights versus security and resource priority? How viable is it to allow more people to reside in a country that itself faces a grave climate displacement crisis?

A [2012 Asian Bank Report](#) recommends that 'to reduce migration compelled by worsening environmental conditions and to strengthen the resilience of at-risk communities, the governments should adopt policies and commit financing to social protection, livelihoods development, basic urban infrastructure development, and disaster risk management'.

The COVID-19 pandemic triggered reverse migration, exposed the mass-scale unemployment, inadequate provisions for the social protection of the migrants, and necessitated the consolidation of policy measures for the otherwise disenfranchised informal sector. While both **Source States and Destination States** are responsible for the desolate condition of climate migrants, the onus must also be put more on Source States for not devising better preventive and mitigating strategies, even though these are some of the worst poverty-stricken States in the Country. Advocates of reverse migration have consistently emphasized the need to focus on improving the rural infrastructure to reduce the burden of extraneous development in urban areas. To devise policies for migrants, Indian States require [statistical data](#) about their numbers and the nature of their mobility. Unfortunately, for the vulnerable migrants, the [Indian States have failed on this account](#). The data is collected after a gap of ten years and is thus unable to capture the realities of sudden climate-induced migrations.

Need of the Hour: Policy Framework & Action

Image Source: The Guardian

With reference to the case studies mentioned in the earlier part, but not limiting our scope to them, this Working Document analyses the existing solutions for internally displaced climate migrants due to both rapid onset and slow-onset climate disasters, and endeavors to give more sustainable and equitable policy suggestions for such migrants.

Our case studies relating to a rapid onset of climate disaster, like the Cyclone Fani in

Odisha, or the floods in Assam, droughts in Saurashtra region of Gujarat, or the harsh climatic conditions of North-Western Rajasthan or Uttarakhand where landslides are often and deadly, suggest that these natural disasters are by and large created or aggravated by climate change which is an outcome of straining of natural resources by humans. Examples of slow onset of climate degradation include the rise of water level and submerging of islands, coastal areas, and low lying lands, forcing people to relocate from coastal areas and to slowly move towards the inland. Similarly, persistent droughts due to deforestation and soil erosion could also be a reason for forced migration as agriculture fails.

In drawing a picture of the current situation for migrants, we must understand that there are no restrictions on migration, including economic migration within India due to **Article 19 of the Indian Constitution**, which grants all citizens the freedom of movement and occupation. There are some laws (Inter-state Migrant Workers Act, State Migrant Workers Act, Contract Labour Act among others) related to working conditions of the migrant workforce but these have proved to cause limited impact. There have been some initiatives in AIDS control directed at migrant workers, for educating migrant children, and for employment creation in drought-prone areas. Laws such as Mahatma Gandhi National Rural Employment Guarantee Act tend to provide the workers in the poorest areas some relief, but none of these policies address the challenges faced by forced climate migrants. In India, very few laws and policies are focussed on migrants and there is no official recognition of migrants due to climate change.

This Working Document, therefore, suggests a few broader guidelines to work on and specific local policy decisions to suit the needs of climate migrants. These guidelines are in line with the World Migration Report, 2020, and include the following:

❏ Focus on good local adaption:

  ❖ Investing in climate-smart infrastructure, and adapting local materials for sustainable construction;

  ❖ Diversifying income generating activities;

  ❖ Building a more responsive financial protection system, particularly for the vulnerable groups;

  ❖ Educating and empowering women, as data shows they're the worst struck even in the vulnerable groups during any climate disaster (rapid onset or slow onset);

  ❖ Poverty reduction and social protection programs targeting rural areas can help increase adaptive capacity to climate change, potentially reducing the need for people to move under distress.

❏ Well managed migration from hotspots: Despite increasing local adaption, climate change is inevitable and there would always be areas where people would be forced to migrate from. The regional and national governments need to coordinate and bring out-migration plans for these areas. Migration with dignity, training people, and providing them with education and means for immigration is the need of the hour.

❏ There is an increasing need for investment to improve our understanding of internal climate migration, particularly at scales ranging from regional to local, where climate impacts may deviate from the broader trends identified in a global-scale analysis.

❏ Embedding climate migration in development planning: This includes increasing resilience and development prospects for all those affected. Governments will require guidance, technical assistance, and capacity building

to develop national laws, policies, and strategies that are in line with international frameworks related to climate migration. The engagement of private actors, civil society, and international organizations is key to building relevant policy frameworks and capacity.

❏ Working on climate change and cutting greenhouse gases and adhering to the Paris Accord and Kyoto Protocol amongst several other climate change agreements to prevent an increase of climate-induced migration amongst several other risks: According to an estimate by Groundswell Internal Climate Migration Report 2018, adherence to the climate change protocols would lead to a difference of 120 million internal climate migrants by 2050 in just three regions- South Asia, Africa, and Latin America.

Policy Recommendations

In light of the aforementioned guidelines, we propose the following policy suggestions for addressing the challenge of internal climate migrants in India:

A. The States need to form a working body and funding for research on climate migrants, estimating the migration patterns, number and migration hotspots amongst several other parameters and details necessary for proper evaluation and policy making. A richer, more detailed set of climate, biophysical, socio-economic and political indicators need to be measured at the regional, local, and national levels. The collection of data on water availability, sea-level rise, weather patterns amongst other climate change factors will lead to the development of better models for prediction of migration and development of national-level policy and enhancement of capacity building to ensure the migrants don't tend to be a burden but an opportunity for the economy. Including climate-led migration-related questions in the national census and existing surveys is a cost-effective way to advance such understanding.

B. Most climate migrants, if not all, end up losing a lot of their belongings, and thus when they migrate, are forced to live in an urban slum. In this regard, recognizing the work done by some cities, we propose to expand the urban slum resettlement scheme to cities especially nearby, but at a safe distance, from areas which are at high risk of frequent natural disasters like floods or cyclones or earthquakes, and leaving safe distance from these risk-prone areas in the development of new cities and towns which will be proposed refugee areas for the climate migrants in case of natural disasters. There should also be work on in-situ development of slum areas to provide necessities like clean

drinking water, electricity, and sanitation and effective and modified implementation of Schemes for Environmental Improvement of Urban Slums like Pradhan Mantri Awas Yojana (PMAY), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), National Urban Livelihood Mission (NULM), National Heritage City Development and Augmentation Yojana (HRIDAY) and Rajiv Awas Yojana (RAY). For this purpose, the focus needs to shift to extensive hazard mapping across the nation.

C. Climate migrants are highly vulnerable in terms of legal recognition. Most of them lose their government-issued documents and identity proofs due to natural disasters and lose any ownership rights to land on migrating to other States. Even schemes like Housing for All, which endeavors to provide housing to the urban poor, fail to stand the test of legality, in terms of providing them with proof of ownership. Such schemes still put the poor at the risk of eviction. An analysis of the recent urban development experience in several studies tends to show rising inequality and large-scale evictions in large metropolitan cities, a failure in planning to provide even access to basic amenities, shelter, and social protection. It is thus our conclusion that such housing schemes have been able to provide shelter to only a small fraction of the urban population living in slums and squatter settlements.

There is a need for comprehensive legislation for forced climate migrants, recognizing them and giving them the status of an identified group of migrants so that they get access to the necessary legal support. The legislation should cover issues such as their rights, support from the government, minimum wage standard, and hiring percentage issues specific to climate migrant laborers, recognizing the fact that migrant workers are the most exploited groups of

labor. Governments should also ensure their employment through programs similar to MGNREGA. There should undoubtedly be the stricter implementation of modified and well-formulated labor laws to prevent persistent exploitation.

D. Through the overwhelming evidence to support the idea, we recognize that the "son of the soil" political agenda makes it extremely difficult for the economic & forced climate migrants to be comfortably accommodated in a new State. We, therefore, propose a sensitization and awareness campaign amongst migrant inflow and outflow hotspot States along with States which are more prone to climate migration on the plight of the migrants, and how the migrant population aids the development of their State.

E. Universal Social Security is overdue in a country like India, where over 90% of the population works in the informal sector. The Interstate Migrant Workmen (Regulation of Employment and Conditions of Service) Amendment Bill 2011 which attempted to amend the 1979 Act failed to ensure social protection to workers as the regulation of minimum wages, workplace safety, and the amenity provision clause was rejected by the Parliament. While the monitoring mechanism is desperately required for the above, the Act should be amended to include special housing and other basic amenities for climate displaced migrants. The identification of areas where the climate migrant population resides can be done through tracking movements of people from sudden and slow-onset disaster-affected States. They can be surveyed and the information so collected can help in amending and thereafter implementing the Act. The Inter-State Migrant Worker's welfare scheme in Kochi which requires migrant workers to pay Rupees 30 annually to cover them for 25,000 Rupees for hospital care and 50,000 Rupees in case of death provides a good example of a social

security policy that needs emulation at the national level too. Extending such a scheme will be a huge relief to migrant workers across the country. While State governments especially in destination States can provide for such a scheme, the scheme can be funded and aided by the Central government in States where there is a larger proportion of the migrant population. Monitoring of public health programs like the Integrated Disease Surveillance Programme which enables disease surveillance for epidemic-prone diseases, by the established State machinery inclusive of State surveillance officers and District surveillance officers is necessary to ensure that health screening facilities and diagnostic procedures are provided efficiently to the migrants.

Grassroots organizations along with existing government infrastructure should be used to provide family migrant ID cards, where the benefits for the migrants could be availed by any member of the family. A comprehensive track of climate change migration is necessary to establish Migration Facilitation Centers near shelters for people to resettle if they plan to migrate. Such Centers should have all the necessary information relating to migration, and necessary transportation facilities to assist them. A parallel migration-center should be set up near migrant labor hotspots and transportation hubs, and State governments should ensure that they have affordable access to travel.

F. One essential aspect that we aim to bring focus on, through our recommendations is the development of the skill set of the age group (12-25) to help them attain self-sustaining livelihood opportunities. Skill enhancement will allow for occupation diversification in case the current livelihood source has been destroyed. For example, farmers in case there is land degradation can be employed under infrastructural and developmental projects being

undertaken under MNREGA. This will not only provide opportunities for alternate professions but also ensure a better disaster-resistant rural India through the same. This is crucial in scenarios where people lose their livelihood and are resettled in different parts of the country, sometimes unable to practice their traditional economic activities and learn new skills. In this, we duly recognize the work done by Pradhan Mantri Kaushal Vikas Yojana, but we would like to highlight how the Scheme focuses on providing skill development mostly to school dropouts and college drop-outs.

Another fact is that most of the skill development centers fail to take into account the regional diversity in the State and this aspect fails to harness the local skill and potential and extend formal training facilities in those regions that can create viable economic opportunities for the local population. We thus recommend the extension of the Skill India Mission to not just school drop-outs, but to act for the holistic development of individuals, and impart them with practical economically beneficial skills and knowledge. We propose, in contrast to what has been stated as the objective of the Skill India Mission, to enable mass enrolments, and develop special infrastructure based on local needs. We thus recommend developing local schools with skill development centers in both rural and urban areas, adding required infrastructure, and hiring local craftsmen after imparting them with formal learning to teach these students regularly (eg. 2 hours every week). Local skills such as handicrafts, making fishing nets, food processing and manufacturing, and carpentry can be imparted among many others as subsidiary skills. To begin with, certain villages and areas which are more prone to the climate crisis and natural disaster could be selected with hazard mapping, and schools could be developed in those

regions. Therefore, without spending huge amounts of money on creating new infrastructure to test the feasibility of the scheme, diversification of the skills is the need of the hour.

It must be noted, however, that providing skills won't be the final step, but the first step towards empowerment. Thus there also arises a need for having proper incentives to keep the target age group in schools and attend vocational training as well. Certain incentives should therefore be formulated for this purpose, and Randomised Control Trials (RCTs) could be conducted by independent organizations to check the feasibility and requirement of the incentives. Incentives, in themselves, can also be localized, and at this stage, it is imperative to have a continuous dialogue with local governments and CSOs working on the ground to understand the needs of the people. Incentives could be provided for enrollment as well as for continuing with the vocational training. Additionally, counseling should be provided to the participants about do's and don'ts during climate led emergencies. Some insights should also be provided about various schemes of the government which are applicable in times of climate calamities. Introduction of formal credit through micro-financing institutions and priority sector lending to the hazard-prone areas, and inviting suggestions for innovative sustainable solutions to combat climate crisis in the region, like growing a mangrove forest along the coastline to keep off the villages from being flooded can also prove to be a crucial step in the right direction.

G. Building an early warning system similar to the one built in Odisha is crucial for States like Assam. For most States, the present disaster management systems in place haven't been proactive in their assigned role. Due to the nature of the

young rivers like the Brahmaputra, it is necessary to ensure that the floodplains are clear of human encroachment and preserve and expand forests in the region to avoid spillover to nearby villages and cities. Local water bodies should also be renovated and wetlands restored to absorb the excess water overflowing during monsoon. Our research conclusion suggests that silt removal is infeasible as well as not beneficial as a long term solution to the flood problem.

H. It is imperative to lower the pressure on the megacities with rapid migration due to climate change, and to this end, proper rehabilitation is a necessary goal to achieve. Hazard mapping can play a key role here in the evacuation of villages near the coastline which are at the risk of a natural disaster. This should be done only after extending proper remuneration from the disaster relief fund or the CM relief fund, along with allocating land for rehabilitation, wherever possible. In cases where fertile farmland is not available, the State should look out for the migrants by providing alternative livelihood sources through microfinancing and directing workers towards the dominant industries of the State. This would require a very robust disaster prevention plan. In this regard, Odisha's disaster rapid action force is a good model to replicate. A similar process could be followed for flood-prone areas.

The disaster relief fund to rebuild houses is abysmal, hence we recommend that appropriate compensation be paid along with government support to rebuild the lives of the forced climate migrants. Initial rehabilitation plans can be undertaken in small towns and cities near the disaster-prone area but not in the disaster-prone zone, to be able to provide basic amenities like electricity, sanitation, roads, and food supplies easily. This will also help in keeping them

from migrating to the already congested and under-resourced metropolitan cities, not by force, but by showing them alternative opportunities. In scenarios where the cities nearby don't have the infrastructure to support migrants, the State should work on improving the basic infrastructure. We believe that migration to smaller towns and cities would also prove to be an economic boost in terms of funds allocated to these towns and provide them with the necessary economic impetus and workforce to help in their infrastructural growth and development. This fact emphasizes how a rise in the number of urban centers is an essential factor to relieve the pressure of the overpopulated and environmentally degrading megacities of India.

I. Especially in the Northern region, the number of developed urban centers are highly disproportionate to the population, and all the urban centers are under extreme pressure (not to discredit similar pressure in the Southern peninsula), and therefore two long term measures in this regard should be as follows:

Extension of Urban Centers (like Delhi NCR) – With the rehabilitation of forced climate migrants towards smaller towns, these urban centers would spread outwards to accommodate more people, creating more opportunities. By extension of, for instance the NCR, better connectivity and transportation can be expected between the national capital and the adjoining areas, leading to more investment in those regions as well; National Capital Region Planning Board under the Ministry of Housing and Urban Affairs is responsible for overseeing this. The current area of the NCR region stands at 55,098 sq km and sprawls in the States of Uttar Pradesh, Haryana, and Rajasthan. Better connectivity has led to factories and localities sprawl up to the adjoining cities of Ghaziabad, Gurgaon, Noida, Greater Noida, and Faridabad, making these

cities developed and capable of providing a lifestyle and investment opportunities similar to the national capital. Several plans are already pending with the Central and State Governments like Phase 4 of the Delhi Metro, an extension of Regional Rapid Transit System (RRTS) from Delhi-Ghaziabad-Meerut to Muzaffarnagar as well, or the Delhi-Panipat RRTS up to Karnal. These already in place plans will invite investment in these regions and make it easier for workers to travel from these cities to the capital region. The next NCRPB's Master Plan is due in 2021, hence we recommend proper allocation of lands for migrant laborers and living squatters and providing basic amenities in these areas because with the addition of cities to the NCR, there is going to be an increase in investment and thus an increased need for labor, so a provision for respectable living for this workforce should be a priority in the next development plan. We would also like to highlight how several projects of the NCR Master Plan remain merely on paper and would like to reassert how vital the next 10 years would be to the state of the national capital as the population is expected to grow by over 10 million making it the most populated capital in the world.

The building of more cities and urban centers- Under the Smart Cities Mission, amongst the 100 cities, States like Odisha have only 2 cities that have been targeted for development as Smart Cities. In this regard, we recommend a more fair distribution of cities within States, and more importantly, to increase focus on sustainability, because out of the several thousand projects sanctioned, very few stood the test of sustainability or even attempted to inculcate it as a project goal, though it is stated as an explicit goal under the Mission. More planning, development and allocation of counter magnet areas is also crucial. These are

urban centers aimed to relieve the migratory pressure towards a megacity and in the case of Delhi, currently, the magnet area consists of 9 cities- i) Hissar in Haryana ii) Ambala in Haryana iii) Bareilly in Uttar Pradesh iv) Kanpur in Uttar Pradesh v) Kota in Rajasthan vi) Jaipur in Rajasthan vii) Gwalior in M.P. viii) Patiala in Punjab ix) Dehradun in Uttrakhand (NCRPB, 2018)

J. Recognizing the climate migration due to slow-onset disasters like decrease in agricultural productivity due to soil erosion, or a similar situation of a rapid-onset disaster like erratic rains and droughts needs to be tackled by a similar mapping of drought-prone areas. Climate resilience needs to be developed which would encompass a more robust Public Distribution System, with more cold storage and higher MSP to support farmers and migrants in scenarios of food shortage. Shelters need to be built for natural disasters, and novel techniques of rejuvenating nature and reducing the risk of climate disaster need to be applied. Here policies like preserving mangrove forests to reduce the damage of cyclones in parts of Odisha and West Bengal, protecting forests in the Terai region to prevent floods in Bihar, building canals to reduce rain-dependent agriculture in Central India can be some viable solutions.

K. The most accessible way for India to first help itself and then be able to provide any help to climate refugees is to focus on climate-adaptive strategies and disaster management to address the mass influx of its internally displaced population and make them resilient, medically and financially insured through special social schemes for disaster-prone areas. Compulsory CSR Projects such as to improve soil quality and water conservation (flood control) like the 'Assistance to the Farmer' initiated by HDFC Bank to reduce migration induced by land degradation, droughts and floods can work as effective solutions in this regard. Only by managing population displacement internally can India offer

efficacious refuge to climate migrants. The Disaster Management Authority of India must take proactive steps to assist climate migrants as it considers the impacts of climate change factors. Ensuring safe housing built using solid permanent material, groundwater conservation, weather-resistant silos to protect food grains, afforestation as a flood control mechanism must mandatorily be a part of our policy mechanism concerning internal climate migration.

Conclusion and Way Forward

Image Source: Environmental Justice Foundation

It can safely be concluded that migration is potentially one of the largest impacts of climate change- a crisis that is internally and externally closer home to India. Thus **in India, climate-induced migration should form part of the development agenda due to the major socio-economic implications of migration**. The issue of forced climate migrants could be solved through a multi-fold policy approach of legal recognition and authentic data collection along with building climate resilience in the affected States, and upgrading capacities in the receiving States. Other than resilience building, we also need to focus on financing rehabilitation and temporary relief

settlements near disaster-prone areas.

This is an important issue to be resolved internally because South Asia is situated in an area where climate-induced migration will increase manifold in the coming years. This will also mean that India is one of the biggest countries in the region will be expected to accommodate climate refugees from its neighboring countries, which means we have a limited window to focus on the climate migration crisis within the country before we can set out to resolve the geopolitical implications of climate refugees migrating from Bangladesh and Nepal. Acknowledging and admitting the gravity of the crisis inside the country, heeding the disadvantageously placed States, and working out a plan of action that is well-coordinated amongst the States and especially so between the Centre and the States is essential if India is to combat the massive threat of climate-induced migration through effective policy interventions.

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