

## A Global Relocation Insurance to address the Challenge of International Migration from Climate Change

Pavan Srinath, Pranay Kotasthane, Varun Ramachandra and Sarah Farooqui<sup>1</sup>

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### EXECUTIVE SUMMARY

India has the opportunity to take the lead in setting a new agenda for international climate change discussions. India should propose a '**Global Climate Change Relocation Insurance**' framework (GCCRI) to tackle the adverse impacts of climate change catastrophes. This goes beyond the narrow confines of emission targeting and reduction, which has been the major preoccupation of international negotiations to date.

The GCCRI framework is designed to address the challenge of sudden, large-scale waves of population displacement across national boundaries arising from a variety of climate change induced impacts.

The GCCRI framework enables vulnerable populations to avail a global relocation insurance. This allows them to be rehabilitated in another country, receive work permits, and support through the transition. Thus, people will be given a chance to rebuild their lives in the eventuality of a climate change induced disaster.

In the spirit of *Vasudhaiva Kutumbakam*, India can lead developed and developing countries in providing legitimate means of relocation and rehabilitation of those affected by climate change crises. This can be done in a manner that promotes India's national interest, while offering an alternative international narrative on climate change negotiations.

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<sup>1</sup> The authors are all policy researchers with the Takshashila Institution – an independent think tank on strategic affairs and a school of public policy. Based in Bangalore, Takshashila seeks to build the intellectual foundations of an India with global interests. To contact the authors about the research write to [scholars@takshashila.org.in](mailto:scholars@takshashila.org.in) or visit [takshashila.org.in](http://takshashila.org.in)

## PROSPECT

International negotiations have largely focused on climate change mitigation, relegating adaptation to being a largely domestic concern. Domestic strategies in turn have focused on promoting adaptation, with the aim of reducing the local risk of displacement. However, current efforts at mitigation and adaptation are nowhere near sufficient to prevent the possibility of distress migration.

It becomes an international concern when large numbers of people are displaced across borders. There is currently no global strategy for tackling the eventuality of climate change-triggered international migration.

For over two decades, countries have been negotiating to collectively reduce greenhouse gas (GHG) emissions. However, international emission target agreements have never been enforceable to date. They have not been effective in pushing developed countries to reduce their emissions. For example, though Canada had ratified the Kyoto Protocol in 1997, Canada both failed to meet their emission reduction targets and refused to pay the \$14 billion penalty for not doing so in 2011 (Guardian, 2011). Instead of reducing their emissions to 6 percent below their 1990 levels, Canada's GHG emissions went up by 24 percent by 2010.

Non-binding agreements such as the Copenhagen accord give long windows for emission reductions, and further have no means of enforcement, allowing high emitters to continue emitting more than their fair share of GHGs.

India on the other hand, remains a populous state with low per-capita emissions. During 2010-2014, India's per-capita emissions were only 10% of USA's per-capita emissions. (World Bank, 2015)

In spite of this, India has routinely been cornered and criticised in annual UNFCCC Conferences of the Parties. This may be in part because India was not sufficiently proactive in being at the forefront of the climate change debate.

Recent high-profile agreements such as those between USA and China have further served to deflect attention from both high emission countries, and have further increased pressure on India to come up its own with emission control targets.

International funding and finance has also largely focused on emission reduction and mitigation strategies. The highlight of this approach has been the Green Climate Fund announced in 2009, which remains underfunded so far. In spite of more than 20 years of annual meetings and negotiations on climate change mitigation, there is no solution in sight.

## THE CRISIS

Climate change is a real and paramount threat to human civilisation worldwide in the 21st century. The world has warmed unequivocally in the last century, and many unprecedented changes have taken place in India and elsewhere: including increasing sea levels, reduced ice and snow, and more uncertainty in cyclones and hurricanes (IPCC, 2013).

The threat of uncontrolled, large-scale international migration is an important part of the global impacts of climate change.

Acute shocks of displacement could likely occur from sea level rise that submerges small islands including Maldives and Mauritius, and large tracts of low-lying areas of countries like Bangladesh. It is very likely that the rate of increase of sea level rise will be faster in the 21st century compared to the modest increases seen so far (IPCC, 2013). Displacement of people could also occur from extreme events such as supercyclones or hurricanes, which are likely to increase in intensity if not in frequency in some regions of the world.

Apart from this, people can also be displaced thanks to conflicts that can be exacerbated by drought, floods or other climate triggers. For example, crippling drought played a significant role in the triggering the ongoing conflict in Syria (Kelley, 2015), and threatened to prolong the anarchy in Somalia and the Horn of Africa in 2011 (Lott, 2013).

This displacement of people is not just a local issue for vulnerable countries, but a global concern that transcends national borders. Waves of distress migration are a humanitarian concern, but also pose economic and security challenges. The large influx of refugees into any one country – especially in an uncontrolled manner – can strain local economies, spiking both unemployment and inflation. It can also lead to national security risks and create conditions for increased radicalism and extremism.

The following table provides an assessment of potential displacement arising from climate change over the next century.

YEAR	SEA LEVEL RISE*	SCENARIO
2025	0.09 – 0.17m**	Small islands and low-lying coastal areas are at risk from tropical & extratropical cyclones, storm surges and sea erosion. Threat of severe drought in 1-2 regions globally.
2050	0.17 – 0.32m	Increasing risk from extreme events and storm surges. A few small islands and coastal regions could experience submergence, some triggering a wave of international migration. Monsoons likely to be more intense but irregular. Threat of severe drought in 3-4 regions globally.
2100	0.52 – 0.98m	Several small islands and low-lying areas likely to be completely submerged under water. Up to 145 million could be affected globally (Anthoff, 2006), including a potential displacement of 15 million people in Bangladesh (Rasid and Paul, 2013). More intense and longer droughts, especially in southern Europe and West Africa (IPCC, 2012).

\*Compared to the year 2000. Calculated from Figure SPM.9, IPCC Scenario RCP8.5 (IPCC, 2013).

\*\*Some semi-empirical climate models suggest much larger levels of sea level rise across each of the time points, 2025-2100.

## THE OPPORTUNITY

India has an opportunity to set a bold new climate change agenda, that goes beyond the narrow confines of emission reduction and addresses the threat of sudden, large-scale waves of international migration. India can plug a glaring hole in ongoing talks and negotiations.

The Indian subcontinent has always given refuge to those fleeing from conflicts, such as Jewish people fleeing the Levant, and Parsis from ancient Persia – in the spirit of *Vasudhaiva Kutumbakam*, ‘the world as one family’. It is natural that India leads the way in providing legitimate means of relocation and rehabilitation of those affected by climate change crises.

Most insurance measures currently deal with disaster preparedness, prudent land use, stronger building codes and better planning (III, 2014). There are no extant products, domestic or international which explicitly focus on relocation and rehabilitation in the event of a disaster.

India can champion the idea of a Global Climate Change Relocation Insurance Framework in the annual UNFCCC conferences, and also in multilateral fora such as BRICS, G-20, UN General Assembly and also in bilateral engagements with key partner countries.

## THE SOLUTION

The solution proposed for tackling climate change impacts is a **Global Climate Change Relocation Insurance Framework (GCCRI)**. This is a framework that facilitates individuals and families to buy insurance at a premium for a right to be relocated in the event of loss of land and livelihood due to catastrophic climate change events.

Insurance holders under the GCCRI framework shall be eligible for the following core benefits:

1. Relocation and resettlement into another country.
2. Modest allowance for a fixed period.
3. Legal work permit in the host country.
4. Transfer of the policy to their children, given the intergenerational aspect of risk.

Once the claim has been made and declared legitimate, the claimants shall be relocated to the country indicated in the insurance policy. Upon relocation, policy holders must adhere to the laws of the host country and the relationship between the insurer and the customer will cease to exist after the duration of subsistence allowance decided upon during the purchase of insurance.

## Mechanism and Operation

This GCCRI Framework will require an international agreement with enabling domestic legislations to become functional. Member countries will have to provision land, housing, work permits and funds to allow insurance companies to start devising instruments. Member countries shall follow the principle of common but differentiated responsibilities. Countries should be allowed to choose their mix of contributions, with a greater role expected from land-rich, climate-resilient and high-income countries.

The field can be left open for multiple insurance companies worldwide to start building relocation insurance products, and secure relocation rights from individual member countries. These insurance products will need sovereign backing both by recipient countries and other guarantors to prevent defaults and non-fulfilment during time of relocation. The framework agreement must encourage competition among insurance firms in this space and allow for a variety of instruments that provide the core benefits. Multilateral institutions and state-run insurance companies can fill any gaps left in the global relocation insurance market thus created.

Individuals living in vulnerable areas and countries can purchase insurance policies of their choice and avail the attendant benefits for themselves and their families. Vulnerable states can choose to subsidise insurance premiums to ensure affordability and wide uptake of relocation insurance. High-income countries and multilateral agencies have a role in subsidising the insurance for residents of less developed countries on grounds of humanitarianism, equity and responsibility.

If there are vulnerable populations living in coastal areas of large countries, it is the country's primary responsibility to internally rehabilitate those affected by climate change disasters. The GCCRI insurance shall only be applicable if large parts of a country's territory gets irrevocably affected by climate change disasters.

International agreement on the GCCRI framework must create an independent authority that ratifies the existence of a climate trigger in any disaster, which enables insurance holders to effect their claim.

## **Benefits**

The GCCRI framework if enabled will provide the following benefits:

- India's neighbourhood is susceptible to major climate change impacts and trigger off large waves of uncontrolled migration across international borders. Further, many of these borders are also contested, with several active border disputes. In the absence of an internationally ratified relocation framework, risks to India's national and economic security are high.
- It provides a first-of-its-kind legitimate and secure means of rehabilitation to large numbers of people worldwide in the event of a climate disaster. This closes a large gap in the current array of solutions proposed to tackle the various impacts of climate change. It is also the first ex-ante solution to the problem of displacement, enabling people to become more than just helpless climate refugees.
- The dislocation of large numbers of people due to disasters and conflicts is messy, unorganised, non-directed and overwhelming. The GCCRI framework allows for better planned and manageable vectors of distress migration. The framework can ensure that host or recipient countries can better balance the humanitarian concerns with the welfare of their own citizens.
- It expands the horizon of climate change adaptation options for vulnerable states, who can now secure the prosperity of their citizens in a more holistic manner.

## CHALLENGES

Below are some of the challenges that the GCCRI instruments might face (Huber, 2012).

### Legal and geopolitical challenges

1. **Enabling domestic legislation in India:** Currently, India has no official Refugee or Asylum policy. It works in collaboration with the United Nations High Commission for Refugees to recognise and assist the refugee populations within its borders. Enabling legislations are required within India in order to implement the GCCRI.
2. **Resolving disputes:** The gap between claims made and claims addressed has to be minimal in an instrument such as this and insurance companies must ensure that the gap is minimal. Effective punitive clauses might be necessary to ensure that countries deliver on commitments. However, states might refuse such binding clauses in the name of preserving sovereign rights.
3. **Resistance to global responsibilities:** Climate-resilient, land-rich, high income countries have limited incentives for agreeing to the GCCRI framework. They will need significant, sustained international pressure to fully cooperate and make global relocation insurance viable.

### Insurance challenges

1. **Risk modeling:** Insuring against catastrophic climate change impacts is not a trivial matter. Pricing the risk of catastrophic climate change events is not easy because the data record is less robust for low-frequency/high-impact events such as supercyclones, hurricanes and large floods, compared to high-frequency/low-impact events such as small floods and droughts. Climate modeling has been steadily improving in the last few decades, and climate insurance products impossible to construct in the past are now possible.

Multilateral agencies and governments must invest in helping insurance companies develop better actuarial models that can deal with climate risks better. Substantial investment on focused research is called for. This can also lead to reduction of premiums.

2. **Market imperfections:** In catastrophe insurances, losses usually occur simultaneously for large numbers of insurance holders, and a few large events can account for large proportion of the losses. Moreover, risk-appropriate premiums can be quite high and unaffordable.

A key enabling role that has to be played by governments and international agencies is to subsidise the insurance both to increase overall subscription base as well as make it more affordable residents of low-income countries.

Typically, insurance against low-frequency/high-impact events requires large amounts of capital to be kept on hand to prevent defaults. However, here since the insurance 'payout' requires housing, work permits and allowances, it doesn't require private insurance companies to have large amounts of capital on hand.

3. **Adverse selection:** While people living in the same vulnerable region might have a comparable risk premium profile – they may differ in mobility. That is, the most economically mobile people in vulnerable areas may opt out of the insurance under the assumption that they will likely get a work permit regardless of the insurance itself.

In such a case of adverse selection, the insurer will be left only with customers from the least mobile sections. This will be a problem in two ways. One, the insurer company will have to expend larger resources on ensuring that premiums are paid since its customers are more likely to default. Two, if the less economically mobile are also the least skilled, the insurer country is likely to face local resistance in the event of a large number of unskilled individuals, empowered with a valid work permit are relocated.

However, the chances of this adverse selection are low, because even the most mobile people are not immune to competition in the event of a catastrophic trigger. Further, the residual problems of adverse selection can be mitigated if governments give priority to insurance holders while handing out work permits after disasters.

4. **Free riding:** It is possible that people opt out of the insurance, assuming that they will still be rehabilitated, that they cannot be left behind, on humanitarian grounds. Given that such humanitarian arguments are a reality, free riders may be able to from relocation without sharing the costs of the insurance instrument itself.

The relocation insurance addresses the free rider problem by simply giving better payoffs than what a humanitarian intervention usually provides.

Usually, people are accorded a refugee status and provided basic necessities at a refugee camp pending further intervention. However, the GCCRI provides for pre-allocated housing and work permits, enabling policy holders to avoid the vicissitudes of a refugee camp.

5. **Communicating urgency:** The relocation insurance instruments will be viable when there is early adoption. Since there is greater risk in the coming decades rather than in the immediate future, individuals may have a tendency to postpone purchase of relocation insurance policies. Therefore states and multilateral agencies need to communicate the urgency of adoption to all.
6. **Culture of insurance:** Less developed countries and low-income economies have low consumption of insurance in general. Given that the most vulnerable populations likely reside in such countries, building a culture of paying for insurance (even a modest amount) is a necessary but difficult endeavour.

### CONCLUSION

India has the opportunity to take the lead in setting a new agenda for international climate change discussions. India should propose a 'Global Climate Change Relocation Insurance' framework (GCCRI) to tackle the adverse impacts of climate change catastrophes. This goes beyond the narrow confines of emission targeting and reduction, which has been the major preoccupation of international negotiations to date.

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The GCCRI framework enables vulnerable populations to avail a global relocation insurance. This allows them to be rehabilitated in another country, receive work permits, and support through the transition. Thus, people will be given a chance to rebuild their lives in the eventuality of a climate change induced disaster.

India can lead developed and developing countries in providing legitimate means of relocation and rehabilitation of those affected by climate change crises. This can be done in a manner that promotes India's national interest, while offering an alternative international narrative on climate change negotiations. By taking the lead on this hitherto unaddressed challenge, India can demonstrate its long-held commitment and sensitivity on climate change to the world.

## REFERENCES

Anthoff, D., Nicholls, R.J., Tol, R.S.J. and Vafeidis, A.T. (2006), “Global and regional exposure to large rises in sea-level: a sensitivity analysis”, Working Paper 96, Tyndall Centre for Climate Change Research, Norwich.

Guardian (2011), “Canada pulls out of Kyoto protocol”, December 13, 2011. [goo.gl/L1smWC](http://goo.gl/L1smWC)

Huber, D. (2012), “Fixing a broken National Flood Insurance Program: Risks and potential reforms” Center for Climate and Energy Solutions, June 2012. [goo.gl/1gylby](http://goo.gl/1gylby)

III (2014) Insurance Information Institute, “Climate Change Insurance issues”, 2014. [www.iii.org](http://www.iii.org)

IPCC (2012) *Summary for Policymakers*. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 1-19.

IPCC (2013) *Summary for Policymakers*. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Kelley, C.P., S. Mohtadi, M.A. Cane, R. Seager and Y. Kushnir (2015), “Climate change in the Fertile Crescent and implications of the recent Syrian drought”, *PNAS* 2015 112: 3241-3246.

Lott, F.C., N. Christidis and P.A. Scott (2013), “Can the 2011 East African drought be attributed to human-induced climate change?” *Geophysical Research Letters*, 40, 1177–1181, 2013.

Rasid, H. and B. Paul (2013), “Climate Change in Bangladesh: Confronting Impending Disasters” Page 125, Lexington Books, Plymouth, UK.

World Bank (2015), *CO2 Emissions Dataset*, Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory, Tennessee, United States.