**Experiences and perspectives on loss and damage due to climate change for urban poor, Bhuj city, India**

This is submitted on behalf of a group of civil society organizations (CSOs) and community-based organizations (CBOs) working in an arid region of Kutch, in the western part of India, under an umbrella programme, Homes in the City (HIC), supported by Misereor, Germany since 2008. The urban poor in the city of Bhuj are facing following vulnerabilities, which are further exacerbated due to extreme climate events, such as heat waves, urban/flash flooding and cold waves:

1. **Vulnerabilities due to lack of housing and basic services:** Though Bhuj is a small city having a population of 0.2 million, about 30% of its population reside in informal settlements with lack of tenure security, basic services and social security. Apart from these informal settlements, there are about 700 migrant families and 1,200 single male migrants residing in open spaces in weak temporary structures without any services like water, sanitation, electricity, etc. Though, these people have been residing in Bhuj for 20-50 years, they are unable to secure basic rights as other citizens. They live in inhumane conditions and are exposed to extreme climate events such as heat waves, flash floods, cyclones, and cold waves. These vulnerable conditions further attribute to the risks of loss of livelihoods, poor health, inability to educate their children, and most importantly increases inequality in our society. Constant fear of eviction by public authorities leads to anxiety, and when actual evictions occur, it becomes a question of survival for these people.

*“We fall sick all the time due to heat. It happens so frequently. We fall sick every day…. when there is no breeze that is when we face most difficulty. The doctor says that this is happening due to weather change…. fans cannot even fit in our houses…. when we step inside the house, the fan is so low that it can hit our head.”* – A male resident of an old urban poor settlement in Bhuj, Sathwarawas,

1. **Lack of infrastructure facilities, livelihood spaces and social security for unorganized sector workers:** In India, over 90% of the workforce are dependent on livelihoods from the unorganized sector (e.g., street vending, home-based work, etc.), they have no secure livelihoods and are directly exposed to extreme climatic conditions. HIC has been working with three economic groups, as discussed below:
2. **Street Vendors:** Though, the Indian government has enacted the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act 2014, vendors still get notice and eviction drives are undertaken frequently by the local authorities. There are about 3,000 street vendors in the city of Bhuj, about 2% of total population. They are highly vulnerable to climate conditions as they work under the open sky from early morning till late night. Additionally, to increase their incomes, they prefer to sell in crowded places, where they are exposed to toxic vehicular fumes which affects their health adversely. Besides, exposure to direct heat also damages their perishable goods (e.g., green vegetables, fruits, cooked food, etc.,), thereby leading to losses.

*“Due to heat, the food goes bad sooner. We have to keep checking before giving it to customers. If it normally lasts for 12-14 hours, now it can go bad in 10 hours because of increased heat. So now we need to cook in the afternoon instead of morning to sell in the evening.”*- A street vendor selling fast food

Not only having designated vending zones for street vendors are necessary, but also basic facilities like shelter, potable water, toilets, etc., taking into consideration the needs of female vendors as well, so that they can save themselves as well as their goods they sell in such extreme climatic conditions.

1. **Migrant laborers:** Migrants are not only vulnerable due to lack of housing facilities, but they also need secured livelihoods. The daily-wage laborers working in construction, building roads, laying railway lines, etc., also work under the open sky and do heavy manual work. They are among the workers groups that are most vulnerable to the impacts of global warming and climate change. Being migrants, their ability to access the needed healthcare and emergency services is also very poor.

*“Our clothes get completely drenched in sweat… We get sick from heat often. We also get headaches due to extreme heat.”* – A daily-wage worker

Migrant workers’ wages are often not secured and short of meeting the minimum wage benchmark as they work with contractors and lack enough documentation. It has been noticed that the contracting system operates in multiple layers due to the subcontracting system resulting in labourers losing their wages or not receiving full compensation. Although, government departments are set up for compliance of legislation to ensure the rights of these laborers are protected, but these departments are grossly understaffed. Also, due to the strong nexus between builders, contractors and political parties, taking action against this lobby by the administration is quite difficult.

*“We mostly do labour work, on a daily basis. Sometimes we earn INR 200, sometimes INR 300, somethings we don’t get anything. We just go to labour chowks, sit and come back home…. People come there to hire us, they negotiate with us and offer pittance sometimes we just sit there the whole day and come back home in the evening without work.”* – A male resident of Juni Rawalwadi, daily-wage worker

*“The employer contacts us only for limited work. After 5 pm, he doesn’t even recognize us… Some of them even steal our money. They tell us to finish the work and that they will return soon but they never come. We have to accept our condition…. nobody here listens to us outside (migrant) people.”* – Another daily-wage worker

1. **Waste-pickers:** They are another important segment of our society who work day and night for waste collection and sell it to the scrap-dealers who are linked with recyclers. However, while handling waste and hazardous material they do not have any safety gear and when hurt or infected they do not have access to proper treatment. Their role of managing waste and our environment and thereby global warming is not recognized by society or by the government. In addition to facing income insecurity, waste pickers also have to face social discrimination and exclusion by society.

*“Sometimes we don’t get water at all. The society people don’t even give us water when we ask for it. The rich people ask us to leave …. If we take water in a bottle it gets warm quickly. There is no water tap where we work. We have to sometimes drink the water in potholes as well.”* – A female waste picker

Waste pickers can do wonderful jobs if they are facilitated to undertake this work by providing them safety measures, equipment training and dignity on how to deal with different types of waste materials.

*“The waste pickers can collectively run a plastic recycling centre… The workers will get work, they will get better rates. This income will go to the workers group. They can recycle the same waste that they collect… They can be given some space at the dump site as well. Currently all the trash collected by the municipal corporation is taken there and they burn it all. This causes pollution. If they recycle, it will be better for the environment.”* – A scrap dealer in Bhuj

1. **Conserving natural resources, skills and livelihoods:** As cities are developing, land use of surrounding areas drastically changes by replacing agriculture, wetlands, lakes, bio-diversity, grazing lands, etc. to real estate and infrastructure. This process threatens lives and livelihoods of communities based on these natural resources. Livestock is one of the traditional livelihoods in Kutch as farming is difficult in this region. Hence, our ancestors reserved large grazing lands and water bodies around the city. However, post 2000, the landuse was changed and various public institutions like Kutch University, Army Campus, Airport have been established on these grazing lands. Now, cattle rearers face many issues while accessing fodder, especially green fodder for their cattle. Also, as their lands are formally grabbed by public institutions, the stray cattle roam on roads. Ignoring local resources, skill and knowledge, and aping a business approach has compromised the environment and the livelihoods of marginalized and traditional agrarian groups.

*“We do not have the resources or permission from the city authorities to make arrangements for cattle at home. We cannot arrange for water for ourselves, how can we manage it for cattle? That is why we have to go to the forest …. The rich buy fodder and it is delivered by truck. We poor people have to rely on grazing our animals in the commons which are being compromised” –* A female cattle rearer

**Water:** Bhuj city was originally designed to hold rainfall in over 60 tanks and recharge the aquifer of the city Three human-made lakes – Hamirsar, Pragsar and Desalsar were the largest. These lakes were connected with catchment areas through water channels. Every community had wells that took care of their needs. Hence, people were concerned and took care of these water resources. However, in the late 70s, the Bhuj Municipality started providing piped water connections to each house by digging deep borewells in the periphery of the city. When groundwater depleted and the borewells became defunct, they dug deeper borewells and kept supplying water to the city. The farmers in the periphery suffered due to these practices as they were largely depended on ground water for irrigation. In 2008, the city started getting water from the Narmada Project which was executed despite the huge environmental cost and displacement of thousands of tribal families. Presently, the city gets about 60% of its water from Narmada which comes from over 600 kms away through canals. One can imagine the resources and energy required to transport huge amounts of water and its environmental cost. As citizens are increasingly dependant on water from Narmada, the local sources and infrastructure have started deteriorating.

Ignoring the local resources have also compromised the local biodiversity based on these natural resources. Unfortunately, preserving the local biodiversity is not a priority for the government and administration while several other species including humans depend on them for survival.

1. **Action by CSOs:** In India, CSOs and networks like HIC are undertaking different initiatives to build resilience among marginalized communities through various interventions. Through studies, HIC tried to understand the urban poor’s contribution to GHG emissions (if any and how much), and the impact of extreme climate events on them. HIC’s interventions include application of solar reflective paints on the roofs of low-income housing, providing subsidized solar lights to the families living without electricity, smokeless stoves to the families dependent on firewood, cow-dung based biogas plants for the cattle rearers, promoting native plants and organizing plantation drives, site restoration works considering regional biodiversity, awareness drives on waste management, kitchen gardening, behavioural changes initiatives to reduce their contribution to GHG emissions, etc. At larger scales CSO’s in Bhuj are working with the governments to demonstrate large scale housing using materials and technologies with low carbon emissions; are creating vending zones with shade and proper amenities; are recharging the local aquifer to reduce dependence on external water; are recycling sewerage and solid waste at scales of a few hundred homes. HIC has also assessed the city’s per capita carbon emissions and drawn up a priority list of sectors that need to reduce emissions and vulnerability.
2. **Policy recommendations**
3. Decentralise governance to wards and create policy incentives for improving the use and reuse of local resources.
4. List the vulnerable populations and design special programs to improve their work and living conditions.
5. Urban planning to lay greater emphasis on mixed use and make the watershed the basis of planning.
6. Provide incentives for low carbon materials and technologies for building construction in the city.
7. Strong focus on secured housing and sustained livelihood opportunities for the urban poor who are most vulnerable due to extreme climatic events. This needs prioritizing the poor in climate change adaptation efforts. Evictions and forced displacements in the name of development benefits only a section of society at the cost of livelihoods, habitat and huge environmental damages. Such kind of developmental activities should be strongly avoided.
8. Arrangements for funding of activities to minimize and address losses and damages associated with the adverse impacts of climate change, especially for vulnerable communities in developing nations such as India. However, the funding cannot be limited to just immediate support/relief for preparedness before and reconstruction after the climate-induced event.
9. Building capacity of local communities and strengthening early warning systems for local communities to be prepared beforehand as mostly the local communities are the first responders in case of any disasters induced by climate change.
10. Policies should be more focused on decentralised, community-centred, -led and -managed small-scale infrastructure projects such as water, wastewater, solid waste management etc., rather than funding large-scale projects such as hydro-power, nuclear power, industrial corridors, bullet-trains, etc.

Weblinks:

1. Homes in the City [www.homesinthecity.org](http://www.homesinthecity.org)
2. Heat Stress Risk Assessment and Action Plan for the Urban Poor in Bhuj, Gujarat, January 2022

<https://homesinthecity.org/wp-content/uploads/2022/02/Heat-Risk-Assessment-and-Action-Plan-for-Bhuj.pdf>