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# Natural - Disaster and Displacement in Assam:

## The Case of Floods and Impact on Marginalised Communities

| Fatima Juned



Issue Brief

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September 2022

ISSUE BRIEF

# Natural - Disaster and Displacement in Assam:

## The Case of Floods and Impact on Marginalised Communities

| Fatima Juned

### **ABSTRACT**

2021 saw the largest displacements due to disasters. One of the impacts of climate change has been the increased variability and uncertainty around rainfall patterns which drastically increase the risk of floods. The magnitude of these floods are projected to further increase in the coming years, amplifying the risk of population displacement. Floods have already begun to displace communities, pushing them to migrate in order to rehabilitate. A region in particular that continues to witness devastating floods is the north-eastern state of Assam. In 2022 alone, floods in Assam impacted nearly 55 lakh people, leading to their immediate displacement and homelessness. This paper will analyse how natural disasters, primarily floods, increase the risk of displacement of vulnerable communities and if the measures taken for disaster management and rehabilitation are adequate. Through the case of Assam, this paper will explore how over the years, due to the combined effects of its natural topography and climate change, the state's vulnerability to disasters has increased.

#### **Keywords:**

Floods, Displacement, Marginalised Communities, Assam, Disaster-Management

## NATURAL DISASTERS: FLOODS IN INDIA

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As a result of climate change, there is a growing number of disappearing coastlines, deep droughts, and flooded homes. Natural disasters have caused widespread damage and destruction, impacting around 28.8 crore people globally (Kam et al., 2021). United Nations Disaster Risk Reduction (n.d.) define a disaster as “a serious disruption of the functioning of a society, causing widespread human, material, or environmental losses which exceed the ability of the affected society to cope using its own resources”. A result of these disasters, especially natural calamities, is the displacement of vulnerable communities. However, the focus on environmentally displaced persons and refugees is still excluded from International protection regimes<sup>1</sup> (Cohen & Bradley, 2010). Natural disasters act as push factors for displacement and also have a long-term impact on access to livelihood, food, water, and sanitation. It may be more appropriate to use the term climate or environmental migrants for such communities’ description since they migrate in search of safety. As the intensity of natural disasters increases, the threat of people being pushed into poverty increases too (Hallegatte et al., 2017). This paper will attempt to analyse how natural disasters, primarily floods, increase the risk of displacement of communities and the measures taken for disaster management and rehabilitation.

Floods often cause sudden displacement of a large population, temporarily or permanently (Robinson, 2003). People may move due to flooding that has already occurred or as a precautionary measure before a future flood. It is one of the significant causes of displacement, accounting for 63% of people displaced from their homes as compared to violence and conflict<sup>2</sup> (Kam et al., 2021). These displacements can be prolonged if the infrastructure has been significantly damaged, disrupting the livelihoods of the affected communities.

In India, floods and landslides during the Indian Summer Monsoon season are not a new occurrence. The extreme rainfall increases frequency and duration trends exhibited by the monsoon-laden region (Ray et al., 2019). However, climate change has increased variability and uncertainty of rainfall patterns drastically, thereby increasing the risk of floods. The observed rainfall days depict the risk of increased large-scale floods during the Indian Summer Monsoon. Between 1951-2015, the number of rainfall days rose from 12 to 27 and the number of rainstorms from 4 to 8 yearly (ibid.).

On the Global Climate Risk Index, India ranked 5th among countries vulnerable to climate change (Eckstein et al., 2020). Climate change and disasters is one of the major challenges of the 21st century. It poses grave environmental challenges with implications for the provision of healthcare, production of food, and water supply (Singh, n.d.). The Intergovernmental Panel on Climate Change (2007) AR4 report established that climate change is emerging rapidly, with widespread melting ice caps, and increase in temperatures. The impact of changing climate is not homogenous. Within the same region, climate change’s intensities may vary, making certain sectors and social groups more vulnerable to it than others (O’Brien and Leichenko 2000 as cited in Das, 2016).

With over 12% of India prone to floods, it is imperative to have better preparedness and swift measures

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1 - As Federico & Hess (2021) state, “Protection regimes are used to indicate national or international systems of principles, legal norms, administrative procedures, and practical processes that guarantee protection to those who are forced to move from their country of origin and seek protection as refugees, beneficiaries of subsidiary protection or national forms of temporary protection once their application has been successful”.

2 - By the end of 2021, the number for displacements due to violence, conflict, and fear of persecution stood at 893 lakhs (UNHCR, 2021).

to minimise loss. As rainfall distribution over the areas is not uniform, some areas receive more rain than others. Urban floods in metropolitan cities are also increasing due to poor management of the water drainage systems (Sharma & Sharma, 2018). According to the Centre for Research on the Epidemiology of Disasters [CRED], in 2021, during its monsoon season, India experienced deadly floods that claimed the lives of 1,282 people. Data of the affected population due to floods from 1915-2015 is estimated at 83,10,89,700 (CRED Crunch, 2022). Therefore, the rehabilitation of the affected marginalised communities ought to be a priority.

## **DISPLACEMENT, MARGINALISED COMMUNITIES AND RELIEF: THE CASE OF ASSAM**

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In India, the problem of displacement has been prominent in the post-colonial period. It is a result of both environmental and development-induced, occurring over the years. Floods specifically are influenced by the southwest and the northeast monsoon seasons and are one of the major natural causes for displacement. During June and October 2021, around 19 lakh people were displaced, with the northwest monsoon triggering small-scale displacements in the southern states (IDMC, 2022). According to IDMC numbers, the largest displacements due to disasters occurred in 2021. India recorded around 49 lakh displacements due to disasters in the context of climate change (UNHCR, 2021).

Floods, in particular, cause river bank erosion, leading to more floods. River-bank erosion is a hazard if human settlements are near them since it wipes out human settlements, agricultural land, and forest areas (Das et al., 2014). The displacement of people leads to their increased experience of socio-economic marginalisation due to flood erosion and a lack of adequate means of living (Sheikh, 2021). The displaced persons often lose their homes, accommodations, and cattle. In some places, there is a vicious cycle of displacement, re-settlement, displacement, and so on (Das et al., 2014).

A similar case is observed in Assam. In general, Northeast India and its neighbouring areas like Manipur, Meghalaya, and Mizoram are vulnerable to flash floods and landslides, alongside the Brahmaputra and the Barak Valley. Prior to the 1950 earthquake in the Northeast, the river course was well-defined. However, the earthquake caused the tributaries to carry large amounts of silts deposited on the Brahmaputra bed, losing its equilibrium and causing erosion (Sharma and Gayan, 2014). Over the years, the tributaries caused periodic floods, potentially due to the geographical spread and river tracks and low lying coasts, affecting lakhs of people, especially Assam (Deka, 2015). The failure of embankments at different locations has also led to cause immense destruction of many villages (Sharma and Gayan, 2014).

The natural topography and impact of the earthquake has led Assam to be vulnerable to floods. The state has faced floods in 1954, 1962, 1972, 1977, 1984, 1988, 1998, 2002, 2004, 2012, 2019, 2020, and most recently in 2022. Around 39.58% of Assam is flood-prone and experiences flooding each year during the monsoon (Government of Assam [GoA], n.d.). This combined with the changing rainfall and temperature patterns in the Northeast has caused significant damage, mainly on the river banks and chars (midstream river islands). Floods have led to a loss of crop area, and impacted the livelihood of the people in Assam gravely, which is mostly agrarian. As of 1st July, the state lost 63,314.75 hectares of crop area due to the flooding (Assam State Disaster Management Authority [ASDMA], 2022a). For instance, the Mishing community of Majuli Island are predominantly dependent on the rivers for their livelihood. However, after the 1950 earthquake, river bank erosion, siltation,

and disproportionate rainfall patterns over the years, the agricultural production in the area has decreased drastically. Therefore, this decrease in crop yield may lead to migration to areas where livelihood choices are better.

Rising temperatures and drying regions also contribute to flooding and migration. Heat results in decreased agricultural produce and high precipitation rates, further leading to floods in the low-lying regions. The impact of climate change on countries with high dependency on agriculture, climate-sensitive livelihoods like rain-fed agriculture, water, and forestry would be detrimental (Moorhead, 2009 as cited in Das, 2016).

## **DOUBLE VULNERABILITY: MARGINALISED COMMUNITIES AND DISASTERS**

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Internally displaced persons [IDPs] find it difficult to be adequately rehabilitated (Sheikh, 2021). Since the IDPs are displaced within their own country, they are placed in an unaddressed category during the government's relief and rescue operations (Payla, n.d.). In 2012, Assam witnessed the first wave of floods from April to June. According to ASDMA (2012), around 29 lakh were affected due to the floods from 3,354 villages. Despite the government's relief efforts, it did not have the capacity to provide relief and shelter to all the vulnerable communities of the flood-hit population.

In Assam, those most impacted are persons from the char. Largely Muslims from East Bengal that settled in char during the colonial years, they are incorrectly perceived as immigrants from international borders (Dasgupta, 2002). Government of Assam (2014) estimated that the area has the highest Multidimensional Poverty Index at 18.57 as compared to all regions (flood affected at 11.70 and the Hills at 13.86) in Assam (GoA, 2014).

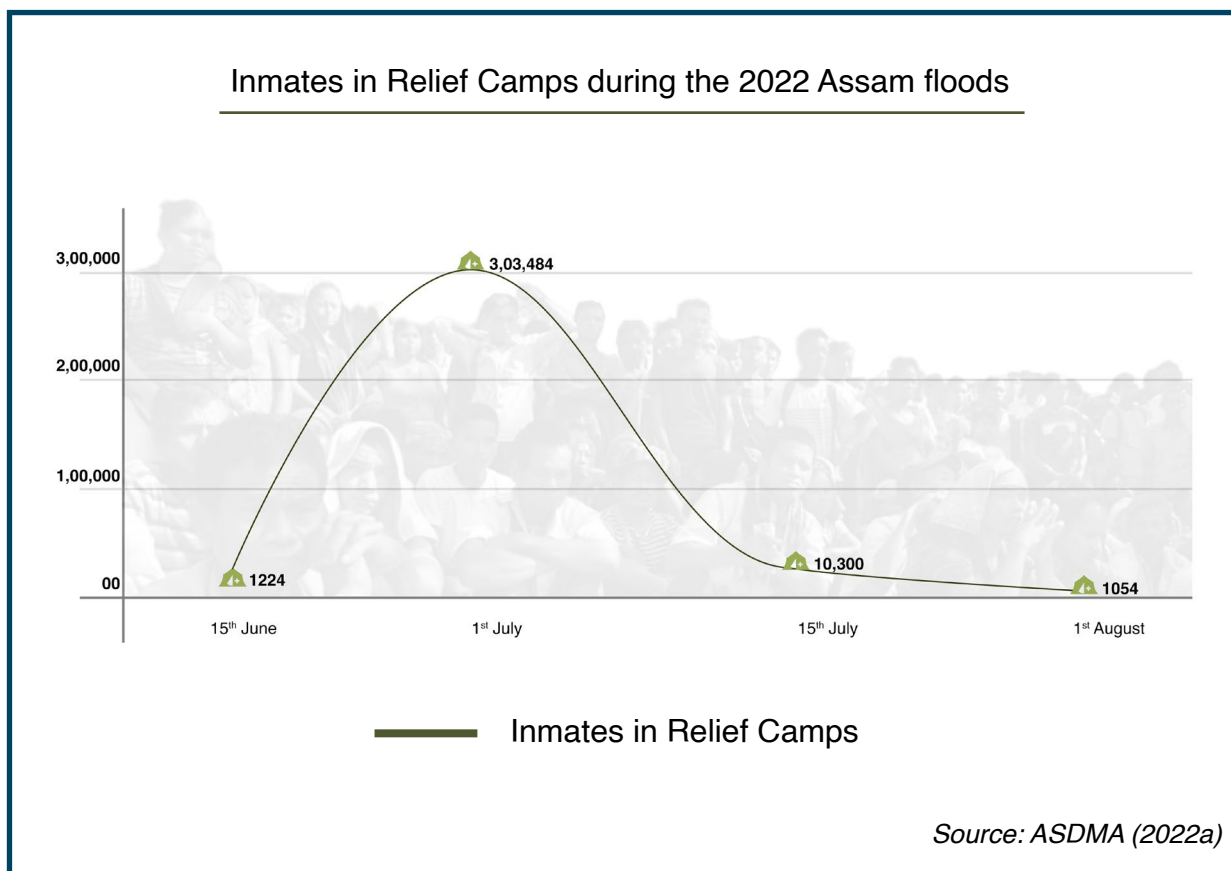
Due to the challenging topography of the area, provision of relief material was strenuous, as the population of 36,000 lived on dykes of the Majuli river island in the Brahmaputra. According to the Red Cross, the conditions of the people on the embankments in Majuli were dreadful, with lack of access to food, water, and sanitation (Coelho, 2012). Even relief materials began to dwindle over time because it was believed that the flood-affected population would return to their homes. However, many houses were still submerged underwater. Many of them did not return to their homes and permanently settled in the nearby areas of their villages (ibid.).

The camps' composition showed that most displaced were Muslims, followed by other marginalised tribes. This provides an understanding and a correlation between natural disasters and the further vulnerability of the marginalised communities. Disasters put the already marginalised at the risk of double vulnerability due to limited resources, accessibility, and poor living conditions (Pongponrat & Ishii, 2018). Due to the frequent loss of land, the dwellings in the char area have to relocate to date. In the past 10 years, the average number of displacements per household is around 2 people. There is not much evidence of the IDPs migrating to other areas, except higher lands of the char. Wherever they migrate, they disengage from climate dependent jobs such as agriculture, rearing livestock, and fishing and instead engage in menial jobs like rickshaw or cart pulling jobs. Their constant and growing displacement also makes them vulnerable to exploitation and trafficking (Kumar & Das, 2019).

This year's floods have affected nearly 55 lakh people in 30 districts in Assam, breaching more

than 200 embankments, leading to the immediate displacement and homelessness of thousands of people across the flood-hit areas (Bhuyan, 2022; Livemint, 2022). As of August 2022, the third wave of floods affected another 35,000 people across four districts, taking the death toll to 173, with numerous unreported deaths (NE Now News, 2022). According to the Flood Reporting and Information Management System data, 1,76,201 people are living in relief camps (ASDMA, 2022b). Many flood-displaced have been living in their own self-made makeshift camps. As of writing, floods have destroyed more than 40,000 houses, causing major displacement (Bania, 2022).

**Figure 1: Number of Inmates in Relief Camps during the 2022 Assam floods**



On 15th June 2022, 1,224 flood-hit people were in relief camps. This number quickly escalated to 3,03,484 people in relief camps on 1st July. By 15th July, the number reduced to 10,300, which is indicative of the bettering of the situation in Assam, and the movement of people from these relief camps. The number of affected districts was also reduced (see Figure 1).

The Central government released the State Disaster Response Fund instalments totalling 648 crores for the year 2022-23 to help the state governments provide relief. The immediate relief the Central government is providing is through grants and aid. The State Government has started providing Rs 3,800 as "utensils and cloth grant" (GoA, 2022) as well as a one-time grant to inmate students in relief camps and a provision of free textbooks to students who lost their books in the floods (Press Trust of India, 2022a). The Assam government launched a Direct Bank Transfer [DBT] to extend the rehabilitation grants programme for those whose houses were damaged during the floods (Press Trust of India, 2022b).

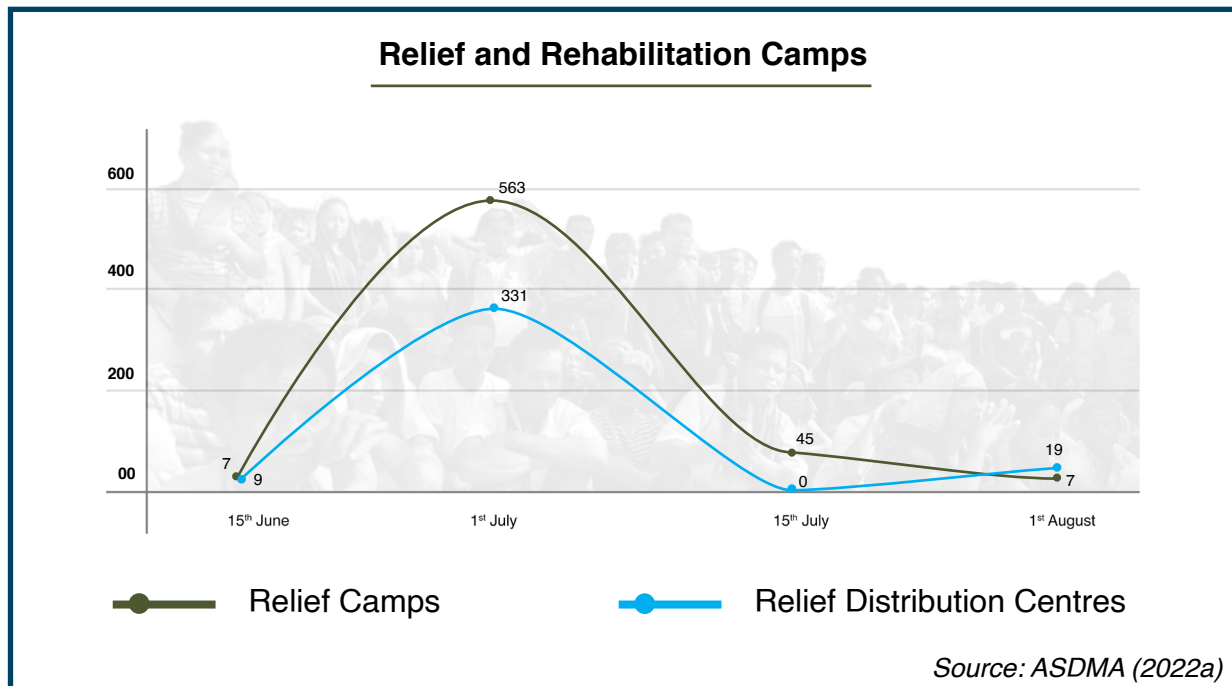
**Figure 2: Number of Relief and Rehabilitation Camps**

Figure 2 showcases the number of relief camps and distribution centres from 15th June to 1st August, 2022. The centres peaked on 1st July and reduced drastically after, as the flood hit areas reduced. With recurring floods in Assam, the efforts of the Central and State governments primarily focus on the provision of relief materials to the affected population. An approach to mitigate and preempt has not been initiated to avoid the loss each year (Bania, 2022).

## DISASTER-MANAGEMENT AND REHABILITATION

The Disaster Management Act of 2005 was established by the Government of India to prevent and manage disasters. For this, a three-tier mechanism was designed to effectively manage disasters (National Disaster Management Authority, n.d.).



This law presents the district management authorities a critical role in planning, managing, and mitigating disasters. In 2010, the Assam State Disaster Management Policy was introduced to devise a “state prepared” to build a “safer Assam” (Government of Assam, 2010). The ASDMA undertakes the responsibility to create policies for disaster management. The district Management Authority for every state is set up as a planning, coordinating, and implementing body for disaster management.



In Assam, the State Disaster Management Authorities undertake structural and nonstructural measures for floods. These include the construction of embankments, retention basins, water reservoirs, flood forecasting, and zoning in vulnerable areas. In Assam, nonstructural measures have significantly impacted the reduction of floods, especially for those residing on the banks of the tributaries of the Brahmaputra (Das & Das, 2017). Steps are also taken to create awareness, early warnings, identification of areas for settlement during floods and drills.

Although the authorities have established relief camps, their living conditions showcase the authorities' lack of preparedness. Nearly 50-60 people share one room and relief materials are inadequate for all families. In these camps, there have been cases of diarrhoea, skin diseases, and fever (Zahan, 2022).

Assam has several initiatives for capacity building and management for emergencies. Nonetheless, this training does not involve emergency planning and critical decision-making when disaster hits. Even though Assam has policies for structural and non-structural measures, a comprehensive evaluation and monitoring of these policies are missing, along with enforcement of post-implementation (Bezboruah et al., 2021). In a flood-prone area like Assam, it is critical to monitor these implemented policies regularly and evaluate their enforcement. In 2020, the Assam government announced it would take up a rehabilitation policy for erosion-hit people but did not consider families hit by natural calamities or human-made disasters. Therefore, a state policy focusing on the disasters must be formulated.

In 2022, the Central government approved the continuation of the seven sub-schemes under the 'Relief and Rehabilitation of Migrants and Repatriates for 2021-22 to 2025-26'. However, these schemes do not cover the rehabilitation of those displaced by natural disasters in the country (PIB, 2018). In Assam, the priority on rehabilitation is necessary as floods worsen yearly and the state disaster authorities must chalk out a proper plan for the affected populations. The government must provide adequate attention to those displaced by these floods, and take measures to rehabilitate them.

## CONCLUSION

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The topographical challenges and adverse impact of growing climate change in Assam have caused widespread problems. The floods cause havoc each year, with multiple deaths and displacement of people of the area. However, the relief and rehabilitation work requires a more swift approach by the authorities. Preparedness in a flood-prone area is imperative, and rehabilitation of those displaced requires thorough planning by the State Disaster Management Authority. It is necessary to find a solution taking into account the affected communities knowledge of the ecology around them and find avenues.

The Disaster Management Monitoring and Evaluation body must be set up by the state body to keep a check on the schemes and relief work implementation. Monitoring these policies is imperative as it would help mitigate some of the drastic effects of the flood through preventive measures. The state governments must prioritise the incorporation of education about flood management in educational curriculums in states like Assam. This would assist in addressing flood management such as prevention and mitigation and preparation such as relief and rehabilitation. Regular assessment of flood risk and the vulnerability of marginalised communities should be done by the state or district disaster management authorities. They should prioritise measures to support such communities during floods with an emphasis on rehabilitation.

The focus should be on building climate resilience among the vulnerable populations of Assam. Coexisting with the river requires mechanisms and awareness among the population. The involvement of these communities in devising policies becomes critical. The focus must be on long-term mitigating and rehabilitation measures for flood-prone populations rather than short-term ones.

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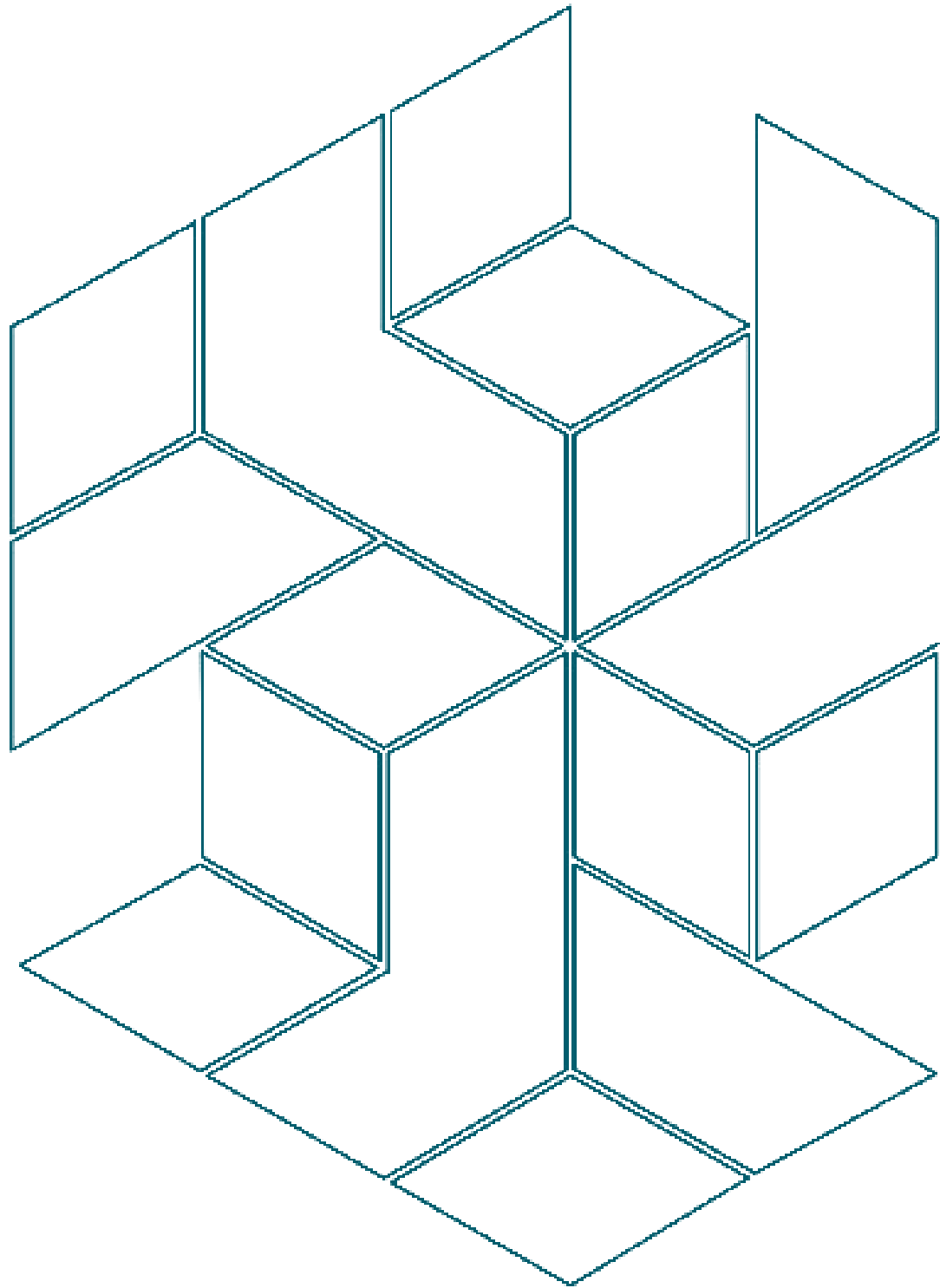
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