



Nagaland's Contribution to India's National Action Plan on Climate Change

KENILO KESSEN, MEZIWANG ZELIANG, THSOPE MEDO, MHABEMO PATTON, VEKHO TUNYI, DIMUSIE POJAR¹

This short article describes the initiatives taken by Nagaland in response to India's National Action Plan on Climate Change. It highlights the Himalayan Region's susceptibility to climate change effects and describes two vulnerability assessments conducted by the Nagaland State Climate Change Cell.

Keywords: climate change impacts, Indian Himalayan Region, Nagaland State, vulnerability assessments

The National Action Plan on Climate Change (NAPCC), released in June 2008, aimed to create a strategy to achieve India's climate change-related adaptation and mitigation objectives. Subsequently, the first edition of the Nagaland State Action Plan on Climate Change (NSAPCC) was formulated in 2013 in line with the NAPCC. Currently, the state is working towards revising its document and is expected to publish the 2nd edition of the NSAPCC in 2024.

The Indian Himalayan Region (IHR) is highly vulnerable to climate-change impacts. Realizing the need to determine state-specific climate-change vulnerability, two vulnerability assessments for the State of Nagaland have been carried out by the Nagaland State Climate Change Cell. Both relied on available secondary data and were based on the latest definitions and vulnerability frameworks published by the Intergovernmental Panel for Climate Change.

The first integrated vulnerability assessment was carried out in 2018. Through a consultative process with the relevant stakeholders, eight indicators were selected and weights assigned as per importance and relevance to the state, viz., *percentage of area with >30% slope, percentage of area under forest, average person days per household under MGNREGA, infant mortality rate, female literacy rate, population density, below poverty line, and high yield variability of food grains*. These indicators were selected based on broad categories highlighting bio-physical and socio-economic drivers of vulnerability and state infrastructure. The study found that the loss of forest cover in Nagaland was the main climate-change vulnerability driver. Another important

1. Nagaland State Climate Change Cell, Kohima

driver was the high yield variability of food grains. Among the districts of Nagaland, Mon District was found to be the most vulnerable to climate change, whereas Peren District was the least vulnerable (Fig. 1).

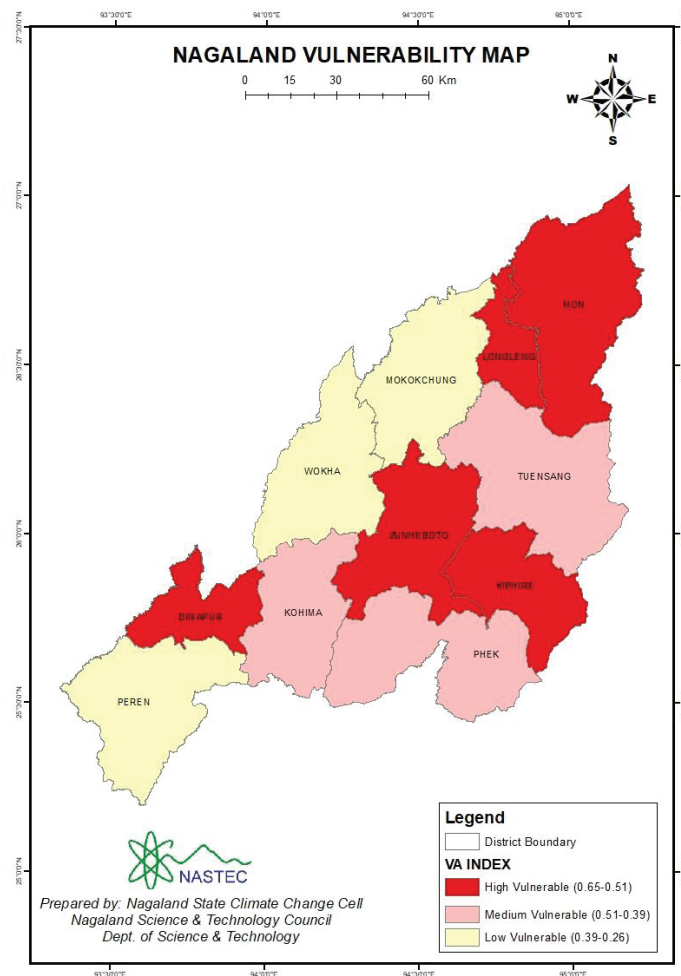


Figure 1: Integrated climate change vulnerability assessment of Nagaland state (2018)

A second Climate Change Vulnerability Assessment for Nagaland² focused solely on the agriculture sector was carried out in 2019. In consultation with relevant stakeholders, the indicators chosen to analyse climate change vulnerability for the agriculture sector were as follows: *percentage of net irrigated areas to net sown area, variability of food grain yield for 10 years, water scarcity, drainage density, percentage of rural households with no land, crop diversification, total number of livestock per 1000 rural households, percentage of villages connected by surfaced roads, access to markets, average person days employed under MGNREGA, and the number of National Resource Management works per 1000 ha.* The data analysis revealed that Kohima was the most vulnerable district, while Dimapur was the least vulnerable in terms of adverse climate change impacts on the agricultural sector (Fig. 2). The major contributory factors were the high net percentage of unirrigated areas, the low number of natural resource management works per 1000 ha, and the low crop diversification in Nagaland.³

2. <https://dst.gov.in/sites/default/files/Full%20Report%20%281%29.pdf>, accessed 10 March 2024.

3. To analyse and generate the information and maps, we have been dependent on the accessibility and reliability of available data.

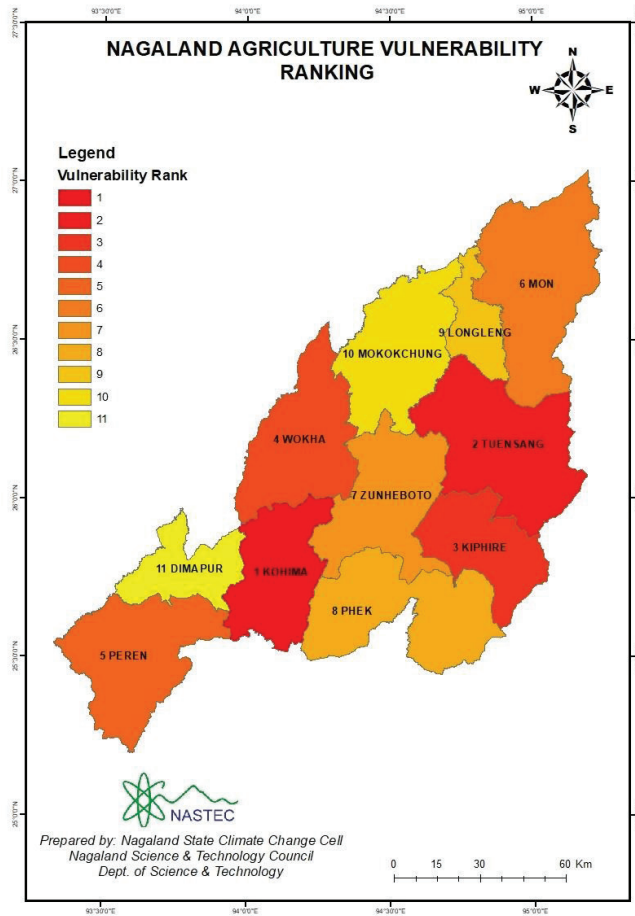


Figure 2: Agricultural climate change vulnerability assessment of Nagaland state (2019)

This article is based on a presentation given at The Highland Gathering, The Highland Institute, Kohima, 15 December 2023. The Nagaland Climate Change Cell is part of the Nagaland Science and Technology Council (NASTEC) within the State Government's Department of Science and Technology.