

Climate Action Has to Shift from Being Reactionary to Precautionary

By Dr Indu K Murthy.

We are in a state of climate emergency. The past year was witness to some of the worst floods in Pakistan, extreme heatwaves in the United Kingdom, and devastating hurricanes in the United States. Climate disasters became the norm in India, too, during the first seven months of 2022 as 241 out of 273 days were marked by an extreme weather event — cold waves, heatwaves, cyclones, thunderstorms, torrential rains, floods, landslides, droughts, dust storms, hail, or snowstorms — according to a [study](#) by the Centre for Science and Environment.

We are just about closing the first quarter of 2023, and we are off to a warm start, with temperatures breaking records across Europe. While the temperature in January 2023 was the seventh highest for the month since 1850, February 2023 was the fourth warmest. There are also reports of disasters resulting from cold waves or cold days, lightning, storms, snow, and heat. From January to February 2023 alone, about [0.39 million](#) hectares of crop area were affected in India, 13 times more than that reported for the same period in 2022.

In addition to these extreme events, certain slow onset events such as sea-level rise are eroding the shoreline, as reported from Odisha and Tamil Nadu, making it literally a race against time and tide.

The past year and the past few months have reinforced the gravity of the climate crisis we are in. It has challenged the capacity of current systems and societies to deal with disasters and get back to normalcy. The mindset of post-disaster recovery has resulted in insufficient investment in resilience building and adaptation, with a focus on disaster management that relies on government sources and humanitarian donations. This is despite the knowledge that every dollar invested in [preparedness saves USD 6 to 13](#). Systems and societies are trapped in a cycle of recovery instead of investing in resilience building and preparedness for subsequent disasters, avoiding losses.

This highlights the need for building resilience in systems and societies to the risks of climate change without waiting for climate extremes to strike. Ample opportunities to invest in climate adaptation solutions to buffer the adverse impacts of climate change and rebalance efforts towards preparedness exist. Some such endeavours include Assam allocating 3% of the annual budget of all the line departments for disaster reduction, the use of green budget tagging in departments to address climate change challenges, and Odisha's zero-casualty goal during cyclones.

While individual action is crucial, systemic community-wide actions are needed to tackle climate-related risks that are threatening natural and man-made systems and communities. The creation of trained 'disaster warriors' who have contributed to making Odisha a champion in cyclone and tsunami management and communities in Assam that come together to rebuild damaged houses under a traditional system called *hariya* post-disaster are cases in point.

At a time when decision-makers are grappling with how to account for risks and uncertainties of the impacts of climate change even as systems and societies are experiencing significant impacts of climate extremes, an understanding of risks through sound analysis is needed. Further, linkages of risk mitigation with early warning systems, contingency planning, public information dissemination arrangements, and associated training and capacity building need to be understood. This would be possible only if supported by formal budgetary and institutional capacities.

All of these will of course need to be backed by robust policies at national, state, and local levels to reduce the exposure and vulnerability to climate change. It also requires an evaluation of the

feasibility of various options for financing investments in nature-based solutions and resilient infrastructure.

As weather and climate extremes break records and natural disasters increase in magnitude and frequency, limiting the capacity of existing populations, systems, and institutions to cope with climate change — derailing development — it is imperative for policies and investments to push towards a net-zero resilient economy by assessing climate risks, promoting adaptation in the short- and medium-term, and formulating strategies for building resilience in the long term.

Dr Indu K Murthy is a Principal Research Scientist heading the Climate, Environment and Sustainability Sector at the Center for Study of Science, Technology and Policy.