

Imperative Climate Actions for Kerala's Sustainable Future

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The context

In 2020 global as well as Asia's average surface temperature was the second largest since 1880(NOAA, 2021). It affected 0.8 per cent of the global land surface and is projected to affect 19 per cent in 2070(Xu, C.,2020). It already affects the global south compared to its counterparts and will affect 3 billion people in 2070. There is evidence that India is one of the Asian countries severely affected the climate change (UNDP,2022). Anthropogenic activities contributed much to the rising sea level, ocean acidification, and increasing methane and carbon dioxide. India committed to lowering its carbon intensity and raising the proportion of energy capacity derived from non-fossil fuels when it signed the Paris Agreement. At the same time, the implementation of policies and programmes to mitigate and adapt to climate change is not up to the mark. Kerala, one of the Indian states with a coastline length of 580 Km and rich biodiversity, has facing high climate variability recently. In this context, the article made an attempt to examine the importance of climate action and the way forward.

According to the Intergovernmental Panel on Climate Change(IPCC), the global temperature has already risen by 1.1 °C from pre-industrial levels and is expected to reach or beyond the crucial tipping point of 1.5 °C by 2035. The Sustainable Development Goal(SDG) 13, climate action, in target 2, stresses the importance of integrating climate change measures in the national policies, strategies and planning. It is also observed that the performance of Goal 13 is not on the right track. Hence, urgent and transformative actions are needed to prevent disastrous outcomes and climate resilience. One of the key areas for urgent action is government should advance integrated and targeted policies with a focus on the rights of women and the vulnerable (SDGs Report, 2023). Like any other shock climate change also affects disproportionately, with a huge impact on already vulnerable communities such as women, children and the marginalised.

Theoretical perspectives of climate action

Climate action is approached from various theoretical perspectives, each offering unique insights into addressing the complex challenges of climate change. Based on the ecological modernization theory, societies can achieve environmental sustainability through technological innovation and institutional change, transforming industry and consumption patterns (Mol, A. P. J.2001). The sustainability transition theory also focuses on the dynamics of transition from unsustainable to sustainable systems, examining the role of actors, institutions, and technologies (Geels F. W., 2002). But political ecology emphasizes the socio-political aspects of environmental issues, exploring how power relations, capitalism, and social structures contribute to environmental problems (Peet, R., & Watts, M.2004). It states that power relations can create inequality. Hence environmental justice principles demand fair and equitable access to resources and protection from the environment (Bullard, R. D., 2000). However, the capacity of socio-ecological systems to absorb disturbances and maintain function emphasises adaptability and learning (Folke, C., 2006). Like the unequal distribution of resources, the burden of environmental costs is also unequally affected. That means already vulnerable or marginalised severely affected by the impact of climate change. Which is devastating and most of the time the poor community crosses the higher threshold due to climate impact. These theoretical perspectives contribute to a comprehensive understanding of climate action, informing policies and strategies to address the multifaceted challenges posed by climate change.

Kerala scenario

Kerala is unique in many aspects of socio-economic and health variables compared to other Indian states and which are comparable to the international level. But the increasing trends in the use of primary energy, water use, number of telecom users and urbanisation during the last 30 years show that the State is also causing climate variability. Kerala is extremely susceptible to the impact of climate change, as seen by its increasing frequency of extreme weather events, fluctuating precipitation patterns, and rising temperatures. Changes in monsoon patterns pose a hazard to agriculture, while sea level rise puts coastal communities at risk. The impact of climate change on Kerala is extreme and already clear with the occurrence of Okhi in 2017, floods in 2018 and 2019, landslides and the incidents of vector-borne diseases like chicken guinea and dengue. Since the impact of climate change is already visible in Kerala, it is imperative to finance climate resilience to avoid climate cataclysm.

Climate Action: current status and the way forward in Kerala

Since the State is undergoing a financial crisis, it is very difficult to allocate funds to the emerging issues. However, the integration of climate change into state budgets and policies is necessary in the current context of severe global warming. The need for more climate funding is mentioned in Article 9 of the Paris Agreement and Article 7.5 recognises that adaptation measures should be taken into account ecosystem, communities and vulnerable groups. There was considerable room for climate mitigation measures in the State Action Plan on Climate Change 2023–2030 (SAPCC 2.0), which was released in December 2022. Kerala has advanced the use of renewable energy sources significantly. Enhancing biodiversity, increasing forest and tree cover, and promoting sustainable forest management are the goals of the Green India Mission. Reforestation initiatives aim to absorb carbon dioxide and lessen the consequences of climate change.

The key tools used to incorporate climate change into the budget are classified as strategies, co-ordinating institutions, impact assessment, public expenditure and institutional reviews, budget strategy, papers and circulars, budget tagging and scoring, innovative funding, citizens budget and accountability and transparency (CABRI, 2022).

Strategic planning

Kerala has now incorporated several policies and programmes as part of the climate action. The Rebuild Kerala Initiative signed a 100 million Euro with AFD (French Development Agency) for the resilience of climate change in 2022 on a performance-based. Besides the State also declared it would become carbon neutral in 2050. Other policies and programmes related to resilient climate change are water and sanitation, use of solar energy, etc. which are aligned with the national and international agenda, including SDGs and IPCC. But the problem with the existing methods are separate plans for each case. Given that climate change disproportionately affects women and marginalised communities, the action plan should prioritise integrating their needs with climate finance. Sectors like agriculture and land use, health food security, energy, water and sanitation, etc can be incorporated while implementing climate resilience actions. Environmental-friendly local practices are also necessary to reduce climate variability. For example, in the case of agriculture and food systems less risky, highly nutrient and compatible with the local environment should be promoted (Sunita Narain Edt., 2023).

Budget strategy

In order to ensure the implementation of the policies and programmes related to climate resilience, strengthen the budget statements and interventions in different sectors. As per the necessity of the current situation or to achieve the targets in the prescribed time, the environmental component can be included in almost all the major programmes based on the priorities. Even climate actions can be integrated with gender budgeting. Need special assessment to prioritise and effective allocation for climate mitigation and adaptation.

Accountability and transparency

Climate accountability would increase awareness of the connections and enhance inspection of whether planned results are being attained and money is being delivered (CABRI, 2022). Proper accounting and transparency help to know the actual root of the fund transfer and whether it is reached in the marginalised communities.

Innovative funding

Finance is an important factor in implementing mitigation and adaptation strategies for sustainable climate resilience. Lack of finance and avoidance of such programs leads to loss and damages due to climate variability. The direct and indirect costs associated with climate vulnerability are sometimes irreparable and irreversible. Financing climate action involves a combination of public and private funding, innovative financial mechanisms and international cooperation. Generally used climate finances are green bonds, carbon pricing, climate funds, corporate social responsibility and other innovative finance instruments (IPCC, UNFCCC).

One of the best examples of a combination of public and private funding for environmental protection is Corporate Social Responsibility (CSR). But at the national and state level the allocation of funds under the head environment, wildlife and biodiversity protection is low. Kerala is not among the top 10 states that received CSR funds in India. It may be due to fewer companies in Kerala compared to other states like Maharashtra, Karnataka, Tamil Nadu, etc. Strengthening the component environment, wildlife and biodiversity protection fund under CSR in the State is necessary.

The state government can develop innovative sources of financing mechanisms like voluntary payments/donations to protect wildlife sanctuaries/western ghats/poonkavanam at Sabarimala for environmental protection of the specific areas and thereby climate resilience.

Public Education and Technology

Technological advancement and raising public understanding of climate change and its effects are essential for sustainable development. Also, prioritize the dissemination of knowledge about green infrastructure to residents before implementing such projects (Wu et al., 2023). The state has the capacity to lead the world in sustainable practices and clean energy, promoting economic expansion while reducing its influence on the climate.

Conclusion

Kerala faces unique challenges and opportunities as it grapples with the impacts of global warming and strives to develop sustainably. This article explores the context of climate action in Kerala, examining the challenges, current initiatives, and the imperative for a collective response to ensure a sustainable future. Addressing climate change is a complex task that calls for coordinated actions from the public, private, and societal sectors. To prevent disadvantaged populations from suffering disproportionately from climate change, social equity must be given top priority in climate action plans. Opportunities for growth and employment should arise from the shift to a low-carbon economy, especially in rural areas. In the Kerala context, taking immediate action on climate change is not only necessary to protect the environment, but also to ensure the welfare of present and future generations.

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