

Adapting better to climate change

While there are ongoing efforts to reduce greenhouse gas emissions and restrict global warming to below 2°C or even below 1.5°C, there are also efforts to help us live in a world where average global temperatures are rising. These projects on adaptation have been funded or implemented in a number of countries, either by individual governments or with the help of external donor funds.

Many projects on adaptation begin by studying what climate impacts are expected, what kinds of vulnerabilities exist locally and how these can be addressed in a given local context. However, a 2010 survey by James Ford and his colleagues of over 1,700 projects concluded that adaptation projects were not helping the most vulnerable communities, and benefits were simply reaching those who had been assisted earlier. When several projects from the global Adaptation Fund, an international fund managed by the United Nations climate secretariat to help developing countries with climate change adaptation projects, were analysed, they too were found not to take into account unequal power structures.

More recently, when Benjamin Sovocool and his colleagues studied various adaptation projects across the world, they considered the context of the political economy by looking at how multi-scale political forces influence economic distribution and how this produces different social and economic arrangements. What they specifically looked at were the power struggles among those competing for limited resources. For their study, they developed a new framework involving four main themes to show that failures in adaptation projects fell under one or more of these categories.

The first is enclosure, which is when private agents acquire public assets or expand their authority over them. Exclusion is the second mode of failure, which is associated with some stakeholders getting excluded or marginalised, thus limiting their access to decision-making processes. The third is encroachment, in which the adaptation actions undertaken during the project end up intervening in areas that are rich in biodiversity, thereby interfering with ecosystem services and often resulting in an increase in greenhouse gas emissions. The last is entrenchment, where the condition of those who are already disempowered or marginalised in the local social context, such as the poor, women or other minorities, worsens from the intervention.

There are various examples of projects from both developing and advanced industrial countries that fail under these themes. A desalination plant was constructed in Melbourne, Australia, by seizing valuable land from the Bunurong aboriginal community and turning it over to private actors. In Norway, as there was low representation of community organisations and environmental groups during the coastal planning process, their interests were not represented or heard over the well-organised commercial actors in the area. In Alaska, the Army Corps of Engineers and private contractors built a barrier against the sea even though this was against the wishes of the local community.

An example of encroachment from Tanzania shows how marine protection areas that were set up to boost the resilience of coral reefs encroached on the lands of traditional fishing communities who then turned to energy-intensive farming which led to higher rates of greenhouse gas emissions. In Burkina Faso, efforts to increase options for livelihood during drought led to distress selling of productive assets that people owned, such as livestock. Disaster relief funds provided to cities first led to crises in rural communities in Kenya. Each of these situations may not fall under separate distinct problems, but may also result in multiple harmful effects. Studying a range of adaptation projects in Bangladesh in another report, these authors found that these projects also suffer from the same types of problems.

There are important lessons to be learned from these cases. Politics and power struggles to control resources need to be acknowledged as being part and parcel of adaptation projects. Mechanisms to anticipate and deal with them correctly should be incorporated well in advance. That elite networks will capture prized outcomes of projects, such as land, water or other resources and privileges, should be accepted, and measures to prevent or mitigate their actions need to be identified. Best practices that can thwart or reduce the impact of political economy forces do exist, and have been identified in other cases. Sovocool and his colleagues recommend undertaking a thorough analysis of stakeholders' interests and power relationships between allies and competitors in adaptation projects, "alongside free, prior and informed consent" from any potentially affected community.

There are important lessons in these for India, a deeply stratified society with entrenched elite networks and growing levels of inequality, where a number of adaptation and development projects are carried out. That such problems exist may not be new to practitioners in these areas, but the point is to anticipate them and look for measures to reduce the adverse effects of projects that ultimately aim to reduce the effects of global warming over many decades.

Besides, there has been a tendency to identify climate impacts and then regard technology as the straightforward solution. For example, use drip irrigation to save water, or do watershed development to increase water availability, or build barriers along the shore for protection from storms. While these may be successful, the ramifications and worsening of social and political conditions are ignored.

Thus, while considering and designing climate change adaptation projects, in addition to vulnerabilities and costs, issues around equity, justice and social hierarchies must be equally considered. Otherwise, one may anticipate a deepening of existing social, economic and ecological problems. These may also result in an increase in greenhouse gas emissions and deepen vulnerabilities among marginalised people. Policies on adaptation need to consider the multiple scales of effects of the project — not just on a household, community or state, for instance. Forces of political economy and ecology that are an integral part of our societies cannot be wished away when considering adaptation projects.

Sujatha Byravan is a scientist who studies science, technology and policy

Receive the best of The Hindu delivered to your inbox everyday!

Please enter a valid email address.

Marriage is a civil contract — adultery or divorce should have only civil consequences

END

Downloaded from **crackIAS.com**

© **Zuccess App** by crackIAS.com