

Need to operationalise green indexing of govt programmes

N H Ravindranath, Indu K Murthy

Dec 16, 2020

In India, the implementation of a large number of developmental and infrastructure programmes have often led to environmental degradation. Very often, environmental damage is recognised post-implementation of a programme or a project.

The Government of India has Environmental Impact Assessment (EIA) and clearance requirements for large projects. Even this is a flawed process since most of the projects are cleared anyway. Of late, there have been efforts to further dilute the EIA.

The government designs and implements a large number of developmental and infrastructural projects with massive investments such as MGNREGA (rural job scheme), watershed development, afforestation, irrigation, power generation, housing, road works etc. These large programmes could have negative consequences for environment such as land, water, air, forests, oceans or could also provide an opportunity to reclaim and regenerate environment.

The Karnataka government undertook a unique initiative of assessing the greenness of all the developmental and infrastructural projects and schemes. The initiative was taken by the Department of Environment and Forests through the Environment Management and Policy Research Institute. The Indian Institute of Science (IISc) undertook the task of developing a 'Green Index' and evaluating majority of the developmental and infrastructural projects of 20 major departments covering nearly 200 programmes.

Green Index is a composite measure of the environmental performance of a programme, scheme or a project. Development of Green Index creates multiple opportunities to promote green development at the state level. Green Index would enable them to identify opportunities to minimise the damage to environment and promote conservation and sustainable use of resources.

Green Index is developed using a set of indicators and sub-indicators reflecting environmental concerns such as: adoption of Energy Efficiency and Renewable Energy Systems, Water Conservation and Recycling, Waste Treatment and Recycling, air Pollution Control, Biodiversity Conservation, Carbon dioxide (CO₂) Emission Reduction or Sequestration, and Adaptation to Disasters and Climate Change.

Green Index has been developed for the approved and ongoing programmes and schemes that are being implemented by different departments.

Both Central and state-sponsored schemes that have implications for environment have been considered for green indexing. The scoring of indicators and sub-indicators is based only on the programme guidelines or components, government order and detailed project reports, and not on the impacts of the programme or scheme on the ground.

The main purpose of the Green Index development is to create awareness within the government departments and among different stakeholders about environmental considerations in designing and implementation of government programmes or schemes, and facilitate enhanced financial allocations and rewards to green programmes and projects.

It is also to empower the government, in a phased manner, to enforce use of renewable resources, conservation of resources, minimisation of pollution, treatment of wastes, and regeneration of environment, meet relevant climate change goals and SDGs (Sustainable Developmental Goals), and facilitate implementation of State Action Plan on Climate Change.

The findings of the study showed that a majority of the projects and schemes were not green, highlighting the need for and potential to enhance the greenness of the programme components. The environment-related considerations for promoting green development in Karnataka to be considered at the programme or scheme preparation or design stage, using a set of key environmental concerns and indicators are given below.

Energy efficiency and renewable energy systems: All programmes that use energy directly or indirectly should have a mandatory requirement or regulation to incorporate most energy efficient systems, appliances and standards. All programmes and activities where fossil fuels or electricity is used, should have a provision for adoption of renewable energy technologies and sources of renewable power.

Water conservation and recycling: There is a need for regulation on use of ground water and all programmes which require water must have a mandatory requirement for adopting water conservation and recycling measures. Further, programmes where recycled water could be used, should incorporate provisions for use of recycled water.

Waste treatment, recycling and air pollution abatement: All programmes that have activities leading to generation of solid or liquid waste or pollute air or water should have mandatory requirement to adopt technologies for solid or liquid waste treatment and air pollution mitigation.

CO2 emission reduction and carbon sequestration: All programmes requiring use of fossil fuel energy should have provision for adopting energy efficiency measures and shifting to renewable sources of energy, where feasible, to reduce CO2 emission.

Land-based programmes should have a provision for minimising tree felling and promoting compensatory tree planting for carbon sequestration. Programmes using fossil fuel energy on a large-scale should have a provision for reporting CO2 emissions.

Biodiversity conservation and ecosystem services: Land and water-based programmes should have a provision for banning or minimising tree felling and to avoid loss of biodiversity of plants, fishes, etc. Biodiversity conservation should be made mandatory for all programmes that impact biodiversity and ecosystem services.

Adaptation to climate change and disasters: Where possible, activities aimed at promoting adaptation to climate change and disasters should be incorporated in the programme guidelines.

India secured 168th rank, at the bottom, in the 12th edition of the biennial Environment Performance Index 2020 that measured the environmental performance of 180 countries, released by the Yale University. India scored below the regional average score on all five key parameters on environmental health, including air quality, sanitation, drinking water, heavy metals and waste management.

Thus India and Karnataka should adopt the green index concept to enhance the standing globally and more importantly, to ensure environmentally sound and sustained development; clear air, water and energy, biodiversity conservation, reducing climate change, adopting to climate change and disasters, ensure sustained food production and economic development.

In this context, the Government of Karnataka was the first to unveil the Green Index in March 2020. During the budget speech 2020, Chief Minister B S Yediyurappa indicated that the Green Index would become an integral aspect of formulating policies and guidelines. The state government should operationalise Green Indexing of government programmes and schemes and aim at conserving environment and promoting sustainable development.

(Ravindranath is Retired Professor, IISc; Murthy is with CSTEP)