

# **Managing Our Natural Systems**

#### to prevent resource overuse and degradation

A natural system is one that exists in nature, independent of any human involvement. It consists of all the physical and biological materials and their intertwined processes. Natural systems, in their unaltered form, are crucial to the functioning of the economy and maintaining the quality of our life. Biotic and abiotic resources derived from our natural systems are either used to make products, or function as sinks (soil, air, and water) that absorb emissions. However, as per statistics, 80% of India's surface water is contaminated and almost 30% of India's land is undergoing degradation in some form. (Desertification and Land Degradation Atlas of India, 2016) This, thus, indicates a consequential exigency to make our economies greener and decouple degradation of natural systems from economic growth. Economy or local economy models geared towards the principles of a Green Economy help ensure this by changing business as the usual approach, and incorporating practices of true cost valuation (or natural capital valuation) within both businesses and government initiatives, promoting sustainable consumption and practice, and community owned natural resource management.

### Economy of Madhya Pradesh and its relation with natural systems

Madhya Pradesh (MP) is economically largely dependent on agriculture, which supports 82.89% of its population. (Census of India, 2011) The state spans across 11 agro-climatic zones, and accounts for a quarter of the pulses production in India. (Government of MP) Additionally, possessing a rich bounty of natural resources, MP houses 12.44% of the country's forests, with an immense potential for capitalising on nature and wildlife tourism. Favourable soil and climatic conditions have helped the state to become the largest producer of coarse cereals, oil seeds and soya bean in the country, which in turn has attracted a large number of agro-based industries to establish base in the state. (IBEF, 2010)

The industrial sector too is largely natural resource driven, with abundant reserves of limestone, bauxite, iron ore, coal, marble, granite etc. The state of MP has 7.5% of the total coal reserves in the country. (Natural Resource Accounting, TERI, 2005)

#### Government initiatives in managing natural systems

The government has been proactive in streamlining its schemes and policies to address the social and environmental issues in the state. Districts of Bundelkhand region are prone to severe drought and water shortages, leading to wide ranging social, economic and environmental implications. The Rajiv Gandhi Integrated Watershed Management Programme (IWMP) was launched by the state government to holistically focus on soil and water conservation, thus promoting resilient crops and sustainable agricultural practices.

The Forest Department has also been proactively conducting people centric Forest Landscape Restoration activities at suitable sites across the state. This involves plantation in degraded areas, which has multi-faceted benefits for water conservation, Non-Timber Forest Products (NTFPs) production, biological diversity in the area, etc.

A few city level initiatives in the state have been structured to conserve the land resources. One such initiative has been the biomethanising of organic waste from vegetable markets, instead of dumping them onto landfills.

The state has formulated business friendly policies to invite investments. Madhya Pradesh ranks fifth with respect to the Business Reform Action Plan (BRAP) rankings as developed by the Department of Industrial Policy and Promotion (DIPP), with a score of 97.01%. (Press Information Bureau, October 2016) Additionally, advanced automated solutions to deal with environmental and pollution related applications, approvals and inspections are also a step forward in ensuring decoupling of economic growth from environmental degradation.

At the same time, a new state Sand Mining Policy has been launched, which abrogated the requirement of environmental clearances and a mining plan, to ensure easier and cheaper availability of sand. (e-khanij, MP Govt. and Business Standard, 2015) Such policy directions may lead to over-exploitation of riparian sand, resulting in river bank erosion, adversely affecting the dependent ecosystem.





## Private initiatives in managing natural systems

The paradigm shift in developmental strategies has strengthened impetus for adoption of green practices by big businesses in the state.

- BHEL Bhopal has taken measures to go green by installing solar panels on rooftops and motion sensors for lighting, to reduce energy consumption in its offices. (MP ENVIS, March 2016<sup>i</sup>)
- As a part of their CSR initiatives, National Fertilizers Limited has guided building of stop dams in Bhamuria, Hoshangabad.
- Private businesses are also investing in making their policies and infrastructure ecologically responsible. This includes adoption of rainwater harvesting practices by some real estate developers in their complexes. (Hindustan Times, September 2014)

## Civil society initiatives in managing natural systems

Community managed natural systems have higher sustainability and resilience, owing to application of traditional knowledge and greater ownership.

- The Narmada Bachao Andolan is a strong people's movement that started against the construction of Sardar Sarovar Dam (proposed height 139 metres) and other small dams on the Narmada River, which submerged nearly 13,000 hectares of forest land in the states of MP, Gujarat and Maharashtra. The Andolan is one such instance where people's participation and perseverance has been able to reduce the gravity of potential environmental and social damage, by compelling the authorities to reduce the height of the dam. The movement has now become a global symbol to highlight issues that arise as an implication of construction of big dams.
- As a part of the IWMP, Watershed Committees are formed in the beneficiary villages which, after completion of the programme, become the owners, and shoulder the responsibility of maintaining the structures and disseminating knowledge.

Considering the developmental and environmental quality statistics for the state, and the fact that access to land and water are critical to maintaining viability of businesses and ensuring sources of livelihoods, emphasis on the preservation, valuation and management of natural systems becomes a crucial task for the government and businesses.

The key questions to steer our discussion towards the steps that need to be taken for better management of natural systems in the state are:

- How should the state structure the existing policy in order to guide economic reforms that can make businesses adopt sustainable practices and ensure natural capital valuation?
- How can the role of communities and their right to access resources be defined viz-a-viz the resource-use conflict that arises from big businesses' dependency on the same natural systems?
- What are the existing gaps in state policy that prevent communities' access to natural systems?
- What kind of local economy solutions can be actualised by entrepreneurs through better natural system management by the government and private entities?
- What are the possible collaborations that can be formed between businesses, communities and the government to ensure a sustainable and equitable access to and management of natural resources?

<sup>i</sup> http://mpenvis.nic.in/index1.aspx?lid=1025&linkid=676&langid=1&mid=4

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