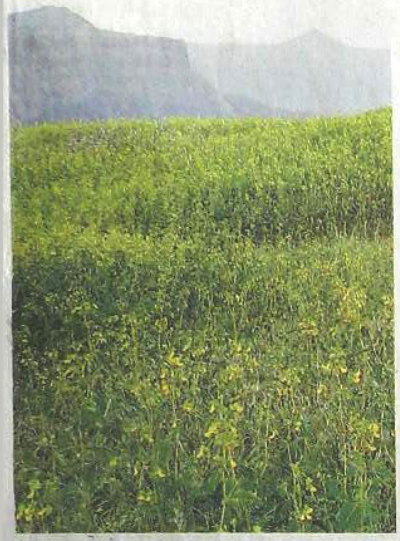

Ecology Panel Set Up By The Environment Ministry Had Sought Views Of Other Authorities On How To Conserve The Region's Biodiversity

Experts want townships, SEZs kept out of W Ghats

Dipannita Das | TNN

Pics : Sanjay Khairnar

Experts say the Western Ghats must be declared a no-go area for industrial development

Pune: Efforts to conserve the biodiversity of the Western Ghats will climb the curve only if townships and special economic zones are not allowed here, a study on private ownership, commercial development and its impact on the ecosystem said.

A separate report backed policies which will ensure that industries are not set up, steps to phase out the existing units, and no renewal of consent for polluting units from the control boards to save the eco-sensitive region.

Both reports were commissioned by the Western Ghats ecology experts' panel that was set up last year by the ministry of environment and forests. The panel had sought suggestions from authorities to preserve the ecology of the Western Ghats.

The first report was compiled by Manasi Karandikar and Ketaki Ghate of Oikos, a nature and biodiversity conservation consultancy, while the second study on industrial pollution assessment was done by former MPCB member-secretary Dilip Boralkar.

The legal framework, comprising a hill-station policy, environmental internal assessment or environmental sanction, was not enough to protect the ecosystem of the Western Ghats as the policies and guidelines set by government are rarely followed, the first study concluded.

This report was based on the consultancy's experience in ecological assessments of various lands, restoration work and general observations since 2001, Ghate said. The firm has worked with local communities and studied forests, land use, ecosystems and biodiversity, private land owners, developers and township development.

A detailed study of the effect of development on ecosystems and its long-term negative impacts was necessary, she said. Loss to the ecosystem is inevitable, she added.

"Developmental activities like roads, establishments, buildings and quarries destroy existing landscapes including slopes, streams, plateaus, valley bottoms, fertile rice fields, biodiversity habitats, soil structure, hydrology," the report said. Compensatory measures like planting 1,000 trees per hectare does not compensate for the loss, it added.

Declaring areas in the Western Ghats and those in the catchment of major dams as 'hill-station zones' contradicts the policy. The government already has a catchment area treatment guideline for dams to prevent siltation. No- objection certificates (NOC) and clearance certificates never look into the finer details of site-specific negative impacts, hence all such certificates are inadequate, the report said.

The tourism industry lacks proper policies, hence there is no control over the type and scale of development, the study noted. It suggested a control over the number of tourists allowed per year and basic facilities instead of urban lifestyle amenities.

The report on industrial pollution said factories cause air pollution due to industrial process and burning of fossil fuel and discharge about 6,78,000 cubic m of effluents. The Central Pollution Control Board has put as many as 234 large-scale units in the highly polluting (red) category, it added.

The report listed thermal power plants, mining operations, chemical and petrochemical industries, metallurgical units, ports and harbour activities, tourism, infrastructure development, fisheries and disposal of industrial effluents as pollutants.

The panel must decide whether the Western Ghats should be left out of any industrial development on the principle that loss of industries can be compensated, but loss of biodiversity is irreversible, Boralkar said.

There is support for green industries, he said. "But, infrastructure, requirement of electricity, transportation, habitation and roads that come with industries, put pressure on the ecosystem," he added.

The areas in the Western Ghats which will be declared fragile by the panel must be made into 'no-go' areas for industrial development of any kind. Mining should not be permitted in such areas since it cannot co-exist with biodiversity, Boralkar said. The paper said that the Planning Commission's thrust on restricting and re-orienting development work in the region was not based on demarcation of physical boundaries.

SUGGESTIONS

- The proposed panel must complete a status survey of the industries in Western Ghats and evaluate them. The primary consideration would be protection and enhancement of biodiversity
- Policies should not permit any further investment in those industries which are listed and which cannot be permitted in the Western Ghats (thermal power plants and mining industries)
- It should examine the record of existing small industries, cottage or soft industries and make recommendations
- The panel should examine possibilities of economic development based on sustainable use of natural resources. For example, instead of extracting and marketing iron ore, small units may be encouraged to protect water sources
- Industries which deal with biodiversity conservation including vermiculture, apiaries, nature rehabilitation work, afforestation work, nurseries, harvesting of timber from private plots, cane crafts and several other income-generating activities (including small-scale eco-tourism) could be the basis for a sustainable development plan
- The panel may suggest creative ways in which persons living in this area would have a right to exploit in a sustainable manner the natural resources

SPEWING WASTE

Area	No. of Industries	Effluents
Mumbai	13	4,75,915
Ratnagiri	4	285
Chiplun	35	4,279
Taloja	15	4,601
Navi Mumbai - II	15	1,135
Raigad - I	25	16,854
Raigad - II	24	38,136
Mahad	27	12,842
Tarapur - I	53	2,589
Tarapur - II	4	1,879
Kalyan	19	1,19,395

(discharge m3/day)

How to save the Western Ghats

- Treat it like an afforestation zone
- No permission for townships / hill cities / hill towns

Zoning of entire range for:

- **No intervention:** Existing national parks, sanctuaries, reserved forests and their buffers, sacred groves, inaccessible patches
- **Buffer for eco-restoration:** Have a 10-m buffer on either side of streams and streamside vegetation, steep slopes, mountain tops.
- **Residential:** Existing Gaothan / wadi with surrounding buffer of 200 m, allow traditional areas of cultivation on level land, moderate slopes with scrub vegetation

Climate to change state's forests: IISc study

Neha Madaan | TNN

Pune: Climatic conditions unsuitable for the existing biodiversity may metamorphose 21% of Maharashtra's forest vegetation by 2030, a recent study by the Bangalore-based Indian Institute of Science said.

The study, which assessed the impact of global warming and climate change on Indian forests, their types, distribution and productivity using the dynamic global vegetation model, said about 45% of the forested areas in the state will undergo change by 2080.

It painted a grim picture for northern and central parts of the Western Ghats including the districts of Sindhudurg, Raigad and Thane which seem vulnerable to climate change.

The study will appear in the August issue of the Current Science journal. Forests in India are under a lot of stress already, and climatic changes will add to it, the report added.

"Forests around Ratnagiri are not likely to be impacted due to a number of geological and hydrological conditions coupled with changes in climate. The northern and central parts of the Western Ghats seem vulnerable because the rate of change in climate varies from location to location, even within the Western Ghats. Low tree density, low biodiversity status as well as higher levels of fragmentation, in addition to climate change, contribute to the vulnerability of these forests," N H Ravindranath, from the Indian Institute of Science who headed the study, said.

Approximate percentage of forest area projected to undergo change by 2035

Rajasthan	61 %
Jammu & Kashmir	57 %
Himachal Pradesh	47 %
Andhra Pradesh	39 %
Karnataka	38 %
Madhya Pradesh	22 %
Uttaranchal	19 %
Arunachal Pradesh	12 %

Existing trees and plant species in these parts could face die-back, a condition that causes them to die or decline prematurely and rapidly.

"It may also lead to a regeneration of new tree species and plants suited to the new climate. Changes in climate simultaneously lead to changes in plants," he said.

At present, forests are being degraded by grazing, fire, timber extraction and fragmentation. "In the future, changes in temperature, rainfall, evaporation, transpiration and other parameters will put additional stress on them causing change," he added.

According to Ravindranath, global warming combined with reduction in rainfall could cause evergreen forests to turn into deciduous forests in the Western Ghats. "A moderate increase in temperature coupled with an increase in the rainfall could also cause the evergreen forests to expand," he added.

The assessment of climate impact also showed that at the national level, about 45% of the forested grids are projected to undergo change.

Vulnerability assessment showed that such grids are spread across India. However, their concentration is higher in the upper Himalayan stretches, parts of central India, northern Western Ghats and Eastern Ghats.

The study showed the percentage of forested area projected to undergo change: About 70 % of tropical dry evergreen forest is projected to change by 2035.

Similarly, approximately 54 % of subtropical dry evergreen forest, 53 % of Himalayan dry temperate forest, 31 % of tropical semi evergreen forest, 23 % of tropical moist deciduous forest, 15 % of tropical wet evergreen forest are projected to change by 2035.