

Comparative study of two major outbreaks reports on western Ghats

Abstract

Here in this review, we have presentation the views of two reports for management of western ghats and their conflicts i.e. Gadgil Report and Kasturirangan Report.

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Introduction

The picturesque Western Ghats is a bio-hot spot with a substantial coverage of 6 states 44 districts and 142 talukas. It hosts 13 National Parks and numerous sanctuaries. It is recognized by UNESCO as one of the bio diversity hot spot. Many rivers supplying much of the water to 6 big states originates in the Ghats. For the same reason Ghats assume significance. Over the past many years the Western Ghats has been a scene of continuous depletion and erosion. The report of the species survival commission's bio diversity unit has revealed that 16% of the fresh water taxa-aquatic plants and fish endemic to the Western Ghats are facing extinction. The main threats are from pollution, bio resource wastage, aqua culture, mining etc. The prolific wastage of water in the Ghats states needs to be highlighted. For instance, Goa has kept the estimated cost of ground water at a mere 2paise per liter leading to resource wastage.¹

Geographic peculiarity of the Ghats

Starting from the Gujarat and Maharashtra boarder, the ghats run 1600km through Maharashtra, Goa, Karnataka, Kerala, Tamilnadu and ends at Kanyakumari. The ghats host 7500 species of flowers 140 species of mammals 500birds species 180 species of amphibians 6000 insect species and nearly 300 fresh water fish species, of these nearly 330 globally threatened species are found in the Western Ghats.² The following peaks are auxiliary to the Western Ghats – Anamudy (8842 ft), Annamallay (8724 ft), Messapulimalai (8660ft), Doddabetta (8652ft), kolaribetta (8625ft), Mukkurithi (8379 ft), Kattumala (8373 ft).³ The major river systems that water the ghats are Godavari, Kaveri, Krishna, Thamaraparani and Thungabhadra. The major tributaries include. Bhadra, Bhavani, Bhima, Hemavathy, Malaprabha, Kabani, Periyar, Bharata Puzha, Nethravathi, Sharavasthy, Mandovi, Zuari and Ghattaprabha. The joge falls in Karnataka adds magnificence to the ghats. The evergreen forest of Wayanadu, the moist deciduous forest of Southern Western Ghats, the dry deciduous forest of south Deccan plateau and the mountain rain forest of south Western Ghats are all in danger of losing their existence and along with it a large number of sensitive species of flora and fauna.¹

The gadgil committee report

Taking in to consideration the precarious situation existing in the Western Ghats, the ministry of Environment and Forest Government

of India, constituted by an order dated 4th March 2010, a Western Ghats Ecology Expert Panel (WGEEP). The panel was given the following mandate.

- A. To assess the current ecological status of Western Ghats.
- B. To identify and demarcate ecologically sensitive areas within Western Ghats and recommend for notification of such areas as ecologically sensitive zone following the EPA 1986.⁴
- C. To recommend for conservation, protection and rejuvenation of the Western Ghats after consulting the people and Government of the Ghats states.
- D. To suggest effective modalities for the establishment of Western Ghats Ecology authority under EPA 1986 so that sustainable development is ensured in the region.
- E. To deal with any other relevant environmental and ecological issue pertaining to the Western Ghats.
- F. As an afterthought the ministry asked the panel to include in its mandate Ratnagiri and Sindhudurg while co-opting its coastal areas and to specifically examine – Gundia and Athirappilly Hydro Electric Projects. The committee was also instructed to make recommendation on the moratorium on new mining licenses in Goa.

Delimiting western Ghats

The WGEEP tried to define the Western Ghats from a purely environmental angle. To quote the report, - the term Western Ghats refers to the practically unbroken hill chain (with the exception of Palakkad Gap) or escarpment running roughly in a north south direction for about 1500Km parallel to the Arabian sea coast, from the river Tapi down to just short of Kanyakumari at the tip of Indian peninsula. In some accounts, the term Western Ghats or Sahyadris is restricted only to the western escarpment of the peninsula plateau from the Tapi south words to the region of Kodagu, while the higher mountain ranges further south, including the Neelgiris, the Anamalais, the Cardamom hills and the Agastyamalai range refers to as a distinct geographic entity named as Southern block.⁵ In this study the concept of Western Ghats is taken in its broader connotation from Tapi to Kanyakumari.

- I. Northern limit: 8° 19' 8" – 21° 16' 24" (N).
- II. Eastern Limit: 72° 56' 24" – 78° 19' 40" (E).
- III. Total Area: 129037 SqKm.
- IV. End-to end length: 1490Km.
- V. Min Width: 48Km.
- VI. Max Width: 210Km.¹

Management of the western Ghats – the gadgil approach

Prof. Gadgil calls for the adoption of an approach termed as Adaptive Co-management. This approach accompanies the features of iterative learning (adaptive management) while accepting linkage (Collaborative management). The later emphasizes on sharing of responsibility jointly. Key aspects of adaptive co-management include:

1. Leaning by doing.
2. Synthesis of different knowledge system.
3. Collaboration and power share among community, regional and national level.
4. Management flexibility.

This approach ensures that strategies are sensitive to feedback – both social and ecological. Needless to state, participation of local communities in decision making is the crux of this approach. The prevalent approach divorces conservation from development, thereby resulting in reckless development in some area and thoughtless conservation on others. The end result is that there are islands of biodiversity through social exclusion called the Protected Areas (PA), while there is ecological devastation outside this protected Areas.

Ecologically sensitive zones

Under section 3 and 5(i) of Environment Protection Rules 1986 (India) an ecologically sensitive zone was earmarked in Murad Janjira of Maharashtra in 1989. A number of declarations followed that made Mahabaleswar – Panjagani and Mardan as a part of the ecologically sensitive zone. The Pronab Sen committee in the year 2000 reported that the area of occurrence of every endemic species in the Western Ghats needs to be protected in its entirety. The Western Ghats has over 2000 endemic species of flowers, fish, frogs, animals and mammals. Since there are a number of variation within the Ghat area, the committee arrived at the following scale for determining ecological sensitivity:

- a) Region within highest sensitivity or Ecologically Sensitive Zone I (ESZ1).
- b) Region of high sensitivity or ESZ2.
- c) Region of moderate sensitivity or EEZ 3.

Major recommendations of the gadgil report

The report had recommended that nearly 65% of the ghat area be demarcated as ecologically sensitive (ESZ1 or 2). Furthermore, it had laid down the major recommendation that new special economic zones may not be allowed in the ghat area, no new dams may be commissioned in entire zone of ESZ1 and that tourism may be strictly regulated in the interest of ecology.⁶ It was further stated that all

chemical pesticide industries in ESZ1 & ESZ2 may be phased out in a span of 5-8 years and that no new thermal power plant or high speed wind plants should be commissioned in the area.⁶ The report also call for a comprehensive and complete ban on conversion of public lands to private lands, and also on allocation of forest land for non-forest purposes in ESZ I and II.⁶ The report also made a clarification call for banning plastic bags.⁶ Perhaps, the most significant recommendation made by the committee was to impose a ban on sand mining and quarrying, and ironically, this was strongly opposed by Kerala.⁶ The areas of Western Ghats were mapped on the following criteria:

- a. Biological attributes which includes biodiversity richness, species rarity, habitat richness, productivity, biological or ecological resilience and cultural cum historical significance.
- b. Geo climatic layers attributes, which includes topographic features, climatic features and hazard vulnerability.
- c. Stakeholder valuation which includes inviting opinion of public and local body, zilla panchayat, village level political body and civil societies.

The Kasturirangan report

There was an opinion from certain sections of the society that the Gadgil report was “harsh” in its contents. The Kasturirangan report therefore looks at Western Ghats conservation from a new perspective. The report tries to achieve a fine balance between environmental conservation and politico-economic expediency. It is no wonder that the report in its prelude states that, “The future lies in working on green growth strategies that build on the natural endowment to create a vibrant economy.”⁷ The report was aimed at examining the recommendations made by the Gadgil report.

Salient aspects

1. Like other reports on the topic, the said report also emphasized on the importance of conserving the rich bio diversity of the Ghat.
 2. The report categorized areas on the basis of their ecological sensitivity and activities that affect the ecology negatively shall be either totally banned or restricted in highly sensitive zones.
 3. The report states that the “blanket prescription” approach of the Gadgil committee will be harmful to the economy and A case was made out in favour of the Kodagu coffee planters as an example.
 4. The report stresses on giving special incentives for “Green Growth” in the Ghat area(RE(ESZ) Division, 2016).⁸
 5. Around 60,000 ft area was identified by the report for conservation(RE(ESZ) Division, 2016).⁸
 6. The following activities have been banned in the Ecologically Sensitive Areas(ESAs) (RE(ESZ) Division, 2016)⁸
 - a. Mining.
 - b. Quarrying.
- I. Sand Mining
 - a. Thermal Power plants.
 - b. Township and Area Development Projects.
 - c. Building and other construction projects with an area of 20,000sq ft and above.

- i. Hydro-Electric power projects are restricted, subject to certain.
 - ii. All “Red Industries” shall be Hydro-electric power projects will be based only at those places where there has been a standard ecological flow of 30%. This shall be supported by seasonal collection of data on water.⁷ In the case of Hydro-electric projects, cumulative impact assessment is to be done.
7. In the case of hydro-electric projects, it must be ensured that not more than 50% of the river is affected by the Wind energy projects can be sanctioned subject to EIA.
 8. In the case of industries designated as “orange” (for instance, the food processing industry) there shall be no ban as such, but care shall be taken to ensure that the Process and Production technique adopted is such that it causes least environmental(HLWG)⁷
 9. Infrastructure projects including those related to transport shall be approved only after its cumulative impact is(HLWG).⁷
 10. Railway transport system has to be carefully planned as they can have serious impacts on wild
 11. The provisions of the Environment Protection Act, 1986, the Air Act & the Water Act has to be implemented in letter.
 12. The report cites studies that state that the current tourist impact on the area is beyond its carrying The report emphasizes on eco-friendly tourism and through it community ownership and benefit. Further all tourist hotspots will be audited for compliance to certain norms(HLWG).⁷
 13. The report calls for value addition of non-timber products by setting up processing Further, in order to provide reasonable remuneration for such products, adequate transport linking the production centers and markets is to be provided. This has to be done with the support of DST, DBT and CSIR. Individuals and communities will be supported in the income earning concerns through the “viability gap funding mechanism” (HLWG).⁷
 14. The committee recommends that Entry 20 of the Concurrent List (Economic Planning) should be extended to consider environmental concerns as part of the planning.
 15. New institutions capable of balancing Developmental and Environmental needs and in responding to people’s needs are to be(HLWG).⁷
 16. The existing regulatory systems such as the pollution control boards, state forest departments, State Bio diversity Authorities and Environment & Forest Clearance System have to be strengthened to meet and sustain the vitality of the environment without compromising on the developmental needs of the local.

Controversies linked to the report

There are number of controversies associated with this report. Some of these are mentioned below.

The heavy incursion of planters, mining and dwellings that the ghats has seen has resulted in extensive loss of bio- diversity. The area proposed for conservation is a miniscule portion of the total ghat area. Infact the Gadgil Report had earmarked an area of 129037 Sq.kms of the Ghat area as requiring urgent conservation. The Kasturirangan panel has brought it down to a mere 59940 Sq.kms, which is 37% of the original area(RE(ESZ) Division, 2016).⁸ This is a major area of concern.

- i. It has been stated that both the reports weighed in favour of Both considered the ghat area as a homogeneous entity whereas there are numerous micro level differences. Eminent expert Dr.Vijayan calls for “Ground Truthing” to check the reliability of the sensitivity parameters.⁹
- ii. The density of population of certain villages selected under ESA is more than 100, which is erroneous even by the parameters set by the working
- iii. The Working Group has stressed that activities such as cardamom cultivation in the ghat area is eco-friendly. However, research over the years has proved that the high levels of chemical injection into cardamom fields is destroying the⁹
- iv. The working group does not lay much emphasis on capacity building among the aboriginals (STs) of the restrictions on activities in the ghat area could hamper the livelihood of these groups. The cost of development of some could be disproportionately borne by the marginalized sections.⁹

Conclusion

The Gadgil Report can be seen as an eye opener to the sorry state of affairs obtaining in the Western Ghats. The report underscored the need for effective steps to manage the Ghats so that the resources of the ghats are available for the benefit of the future generations. The Kasturirangan report has been privy to much controversy, given the nature of its recommendations. The major criticism is that it has substantially watered down the provisions of the Gadgil report. However, the report has generated wide interest both among nature lowers and commercial sections. The policy makers would do well to give a patient hearing to the complainants.

Acknowledgments

None.

Conflicts of interest

Authors declare that there are no conflicts of interest.

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