

To

Shri Prakash Javadekar

Honourable Minister of Environment, Forest & Climate Change,

Indira Paryavaran Bhawan,

Jor Bagh, New Delhi - 110 003

4th June, 2020

Subject: Concerns about diversion of forest land in Bhagwan Mahaveer Wildlife Sanctuary and Mollem National Park for railway double tracking, widening of NH4A highway and laying of LILO transmission line.

Hon'ble Shri Prakash Javdekar and members of the National Board for Wildlife,

We are writing to you as scientists, academicians, conservationists, artists, allied professionals as well as concerned citizens with respect to the diversion of forest land for three major projects that are planned through Bhagwan Mahavir Wildlife Sanctuary and Mollem National Park. We refer to the matter (F.No.6-2/2020 WL, dated: 20/04/2020, agenda item no. 3 with fresh proposals 57.3.2 and 57.3.3) from the 57th meeting of the Standing Committee of the National Board For Wildlife, held on 7th April 2020 through a video conference where two projects were approved. Bhagwan Mahaveer Wildlife Sanctuary and Mollem National Park is a treasure trove of flora and fauna, and is part of a larger contiguous forest and an important tiger corridor between Goa and the adjoining Kali Tiger Reserve in Karnataka. We would like to put on record our grave concerns about the planned projects

Ecological significance of Bhagwan Mahaveer Wildlife Sanctuary and Mollem National Park

With an area of 240 sq. km., Bhagwan Mahavir Wildlife Sanctuary and Mollem National Park together constitute the largest protected area in Goa. This forest is part of the Western Ghats,

which is one of the 8 biodiversity hotspots of the world and part of the UNESCO World Heritage Site. All three projects require diversion of forest land from this single protected area. Direct sightings and camera trapping by the Forest department has revealed presence of Schedule-I & Schedule-II species such as the tiger (*Panthera tigris*), dhole (*Cuon alpinus*), mouse deer (*Moschiola indica*), gaur (*Bos gaurus*), and Indian Pangolin (*Manis crassicaudata*). Other rare and vulnerable species (IUCN Red List) such as small-clawed otters (*Aonyx cinereus*) and four-horned antelope (*Tetracerus quadricornis*) are also found in the project area.

In addition, the protected area is also home to more than 721 plant species, 235 bird species, 219 butterfly species, 80 odonate species, 70 mammal species, 75 ant species, 45 reptile species, 44 fish species, 43 fungi species, 27 amphibian species, 24 orchid species, and 18 species of lichens. Two dragonfly species (*Idionyx gomantakensis* and *Cyclogomphus flavoannulatus*) which are endemic to the Western Ghats were described to science from here. In fact the type locality of *Idionyx gomantakensis* is adjacent to the railway track which is proposed to be expanded. It has been recorded from few locations elsewhere in the Western Ghats, and this is the only location in Goa where it has been known from, so far, close to the proposed railway tracks. This protected area is the only other site in India where the reclusive ant *Parasyscia indica* is found and these sites are from where the LILO transmission is proposed.

Many arboreal species such as Slender loris (*Loris lydekkerianus*) and Indian Giant flying squirrel (*Petaurista philippensis*) are present and they require canopy connectivity. Tree cavity nesting birds such as hornbills such as the Great Hornbill (*Buceros bicornis*) which is classified as Vulnerable and Malabar Pied Hornbill (*Anthracoceros coronatus*) which is classified as Near Threatened are also found here. In addition there are 18 bird species that are endemic to the Western Ghats and 7 bird species that are of high conservation concern found here (according to the State of India's Birds, 2020). Rare and endemic amphibian species such as the Malabar Tree Toad (*Pedostibes tuberculosus*) are also found in this protected area.

This protected area is our pride and home to all Goa's state symbols: the state tree (*Terminalia tomentosa*), the state animal (Gaur, *Bos gaurus*) and the state bird (Flame-throated Bulbul, *Pycnonotus gularis*). The rivers and forest streams also provide water to a large human population in the district of North Goa.

Importantly this area harbours many Critically Endangered (*Arisaema sivasanii*, *Aspidopterys canarensis* and *Glyphochloa veldkampii*), Endangered (*Amorphophallus commutatus* var. *Anmodensis*, *Begonia trichocarpa*, *Discospermum sphaerocarpum*, *Habernaria multicaudata*,

Strobilanthus ciliata and *Wiesneria triandra*) and Vulnerable (*Nilgirianthus ciliatus*, *Dacaschistia trilobata*, *Eranthemum capense var. concanensis*, *Oberonia brachyphylla* and *Paracaryopsis coelestina*) plant species. In addition 127 endemic plant species occur in this area.

Besides the flora and fauna, these forests have fresh water streams that feed the main rivers including Goa's lifeline, river Mandovi. This river is a major source of potable water and provides irrigation facilities, produces biotic and mineral resources and aids in travel of people and goods to different parts of the state

This area was marked as an **Ecologically Sensitive Area** by the Western Ghats Expert Ecology Panel that was appointed by your own Ministry. These forests have many sacred groves that have been protected by residents for centuries because of their association with many deities and are therefore of tremendous cultural and conservation importance.

Social and economic significance of Bhagwan Mahavir Wildlife Sanctuary and Mollem National Park

Bhagwan Mahavir Wildlife Sanctuary and Mollem National Park also contributed to tourism revenue, the very backbone of Goa's economy. This protected area is a site for nature-based tourism with popular places such as Dudhsagar Falls, Tambdi Surla Falls, Devil's Canyon and the 12th century Tambdi Surla Temple, each with popular treks leading up to them, are major tourist attractions that are all dependent on the environment sustained by this protected area as a whole. The hinterland nature-based tourism industry in this area is a growing revenue source for the state, and revenue mainstay during the monsoons when coastal tourism closes down. A large proportion of the local population benefits from employment, which is directly dependent on the integrity of the natural landscape of the area. Fragmentation of this landscape is likely to create human-encroachments that are frequently seen because of linear intrusions, apart from increasing the chances of human-wildlife conflict.

Details about approvals provided in the minutes of the 57th meeting of the Standing Committee of the National Board for Wildlife on 20.04.2020.

Agenda item 57.3.2 w.r.t. to Transmission Line: If an EIA report has been submitted, it is not accessible in public domain and members of the State Wildlife Advisory Board were not given an EIA to scrutinise for both projects before the meeting. There is a lack of clarity on the number of trees that the user agency is permitted to fell, as per the minutes of the State Board for Wildlife and National Board for Wildlife. It is unclear how all the equipment and machinery

required to erect these large towers carrying high tension cables will be taken to the site with minimum damage, given that the area is only currently accessible by foot.

Agenda item 57.3.3 w.r.t. to Highway: The EIA has multiple flaws and is substandard on many fronts, including the biodiversity assessment, which has woefully underestimated the impacts of this project. There is no evidence that signages alone limit vehicular speed and reduces road kills. With the road being widened the vehicular speeds are likely to be higher. It is also unclear how animals will use the eight proposed underpasses. Providing viewpoints for the public, drinking water facilities and toilets will increase waste and littering in this protected area. The stretch of the road to be widened is about 13 km in length and such facilities proposed inside a protected area will only further increase disturbance in this ecologically-sensitive PA.

Railway double tracking from Castlerock to Collem:The proposed railway line doubling through two protected areas, Kali Tiger Reserve, and Bhagwan Mahaveer Sanctuary, was discussed before the 56th NBWL Meeting (dated: 17/12/2019, Agenda no. 3). This will result in large-scale disturbance to this sensitive tiger habitat by bisecting nearly 26 km through it. This region is the only contiguous landscape with a viable tiger population (~40-50 individuals) in the north-central Western Ghats. There are known cases of large mammals such as leopards and gaurs being run over by trains while crossing the tracks. There are indirect effects of lights and wires that are likely to affect owls and raptors. Any further disturbance due to the construction and doubling of the railway-line will damage these protected areas irreversibly. The mitigation measures will not prevent disturbance due to increased movement of freight and passenger trains through this hilly region. Hill cutting in this steep terrain combined with increased rainfall variability may make this area prone to further land-slides and could increase serious ecological, financial and social costs.

Impacts of the proposed projects:

These three projects – railway line double tracking, NH-4A highway widening, and laying of the transmission line - are likely to lead to multiple downstream effects of fragmentation of these fragile ecosystems. The road and the railway track will create stark barriers that may lead to a rise in wild animal mortality. Movement of arboreal mammals, reptiles, fish and amphibians is likely to be hindered by these barriers. The laying of the transmission line would need felling of large old growth trees along its course, thereby removing not just trees but also disrupting plant-animal interactions (such as seed-dispersal and pollination) that provide ecosystem services to forests and humans. Disrupting canopy connectivity increases spread and colonisation of

invasive species (eg: *Chromolaena odorata*).

The hill cutting with regards to the road and land filling with regards to the railway track, along with the deforestation itself, will lead to eroded soil being deposited in the rivers and streams. Additionally, increasing sediment load resulting from the removal of riparian vegetation is likely to negatively affect the survival of hill-stream fish. Such water flowing downhill from this protected area will affect residents and farmers in villages such as Dharge and Bolkarne, who are dependent on these water resources.

These forests that have existed for thousands of years are irreplaceable. Direct loss of biodiversity and the far-reaching impacts of habitat fragmentation will reduce ecosystem stability and decrease forest resilience, that is also required to deal with the effects of climate change. These three projects can only be evaluated through a rigorous cumulative impact assessment study of all three linear projects within one protected area and cannot be looked at in isolation by the MoEFCC and the NBWL

If these projects are cleared, they will have severe repercussions on wildlife and for the livelihoods and ecological security of the people of Goa. Video-conferencing these decisions about forests that are important to us, does not allow site-specific scrutiny to substantiate the facts, examine documents, or register the voices and opinions of stakeholders, in a fully democratic manner.

We hope that the concerns put forth will be considered seriously, especially given that this decision was taken during the Covid 19 lock-down when this pandemic has been tied to the environmental degradation. We urge that under your leadership, the MoEFCC and the honorable members of the NBWL will strongly reconsider these approvals in the interest of democracy to safeguard Goa's biodiversity and ecological security.

Thank you for your kind attention.

Yours sincerely,

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