

CHAPTER 6

The Paradigm for Sustainable and Inclusive Development and the Framework for Governance

6.1 Introduction

The Western Ghats is a biological treasure trove that needs to be protected and regenerated, indeed celebrated for its enormous wealth of endemic species and natural beauty. The analysis of current land-use data, using remote sensing technology at 24-meter resolution, reveals that already close to 60 per cent of the area defined as Western Ghats is under cultural landscape. The cultural landscape – as different from natural landscape – is human dominated land use of settlements, agriculture and plantations (other than forest plantations). Therefore, only 41 per cent of the land area can be currently classified as natural landscape – with different classes of vegetation cover and medium to high biological value.

The biologically rich area, with some measure of contiguity is roughly 37 per cent of the Western Ghats boundary – roughly 60,000 sq km. The HLWG has recommended designation of this identified area as, Ecologically-Sensitive Area (ESA).

The message of this report is serious, alarming and urgent. It is imperative that we protect, manage and regenerate the lands now remaining in the Western Ghats as biologically rich, diverse, natural landscapes. We have reached a threshold, from which we cannot slip further. This has to be the objective of future planning and regulation in this recognized center of biodiversity in our country.

What is also clear is that natural landscapes face unprecedented threats because of development projects and urban growth. HLWG emphasizes a non-tolerance policy with respect to highly interventionist and environmentally damaging activities like mining or polluting industries. The HLWG also proposes to bring specific

recommendations about prohibited activities and those that require high level of scrutiny and assessment before clearance.

HLWG recognizes that the proposed non-permissible activities may not be enough to fully manage the environmental fallout of development. However, it is also clear that management through prohibition and fiat is often detrimental to the interests of the very people and environment policy is aiming to protect. Therefore, we need a balanced and nuanced approach to say no to the most damaging and high impact activities and at the same time working of systems to incentivize environmentally sound development that benefits local livelihoods and economies.

It is important to note that the Western Ghats even in the areas, categorized as natural landscapes, is inhabited. It is not wilderness area, but the habitat of its people, who share the landscape with biological diversity. It is not possible to plan for Western Ghats, only as a fenced-in zone, with no human influence. This is the difference between the natural landscapes of a highly populated country like India, against the wilderness zones of many other countries.

Within the area defined as ESA, there are some 4156 villages. The villages included have 20 per cent of more of ecologically sensitive area within their boundary. The people living in these settlements have undoubtedly built a deep relationship and coexistence with the natural environment. However, these practices need to be supported and incentivized. People living within the rich biodiversity have nurtured nature. They must benefit from conservation. This should be the aim of future programmes.

The area defined as 'cultural' has been deliberately identified and segregated from the 'natural' landscape. This does not mean that these settlements, plantations or agricultural fields do not co-exist on the biological diversity of the natural area or that these areas have an open license to pollute or degrade the environment. It is for

this reason that HLWG proposed to recommend a higher level of scrutiny and monitoring for projects within 10 km of the ESA.

HLWG also recognizes that this cultural landscape is biologically rich. For instance, the coffee plantation areas of Kodagu have high biological diversity in the cultural landscape. The sacred groves of many settlements are scattered and so not detectable through remote sensing. But these groves are the most abiding symbols of people's belief in the protection of nature. HLWG has recommended policies to incentivize these practices so that growth across the Western Ghats can be environmentally sound.

This is the opportunity for the future. The Western Ghats, are recognizably, one of the world richest regions of biodiversity. The economic growth in these regions comes from natural endowment – the water that irrigates the commercial plantations or rich manure that fertilizes the agricultural fields, the forest wealth that brings industry or tourism that generates jobs. The future lies in working on green growth strategies that build on the natural endowment to create a vibrant economy. This Chapter provides prescriptions for sustainable and inclusive development framework for governance in Western Ghats region.

6.2 WGEEP recommendations for sector level planning and their implications

The WGEEP has recommended guidelines for sector-wise activities, which would be permitted in categorized ecologically sensitive area of the region. In this way, regions with the highest ecological sensitivity would have restricted developmental activities – from a total ban on mining to large hydroelectric projects or inter-basin transfer of water and even plantations. The listing is comprehensive and provides an important direction to what will constitute environmentally sound development in this ecologically rich region. The question is how such a development plan will be implemented. Furthermore, it is also important that environmentally sound development should be incentivized and not only practiced through fiat.

It is also clear that this recommendation of the WGEEP has evoked the strongest criticism from many quarters. There is apprehension that this 'blanket prescription' could be detrimental to economy and livelihoods. For instance, the Kodagu coffee growers and planters association made a strong representation to the High Level Working Group that the district should be kept out of the Gadgil committee recommendations. Their argument was that they have a strong tradition of cultivation of coffee, cardamom and other crops. They practice techniques, which protect the soil, recharge groundwater through ponds and use organic manure. Their way of life is not harmful to the environment.

While WGEEP does not contain a specific reference to plantations in Kodagu, the sector wise guidelines stoke fears of selective interpretation and misuse. In this case, WGEEP specifies that in ESZ1/ESZ2 change in land use would not be permitted from forest to non-forest uses or agriculture, except where it is needed for extension of village populations. It also specifies that even on private lands, there will be no monoculture plantation of exotics like eucalyptus and existing plantations should be replaced by planting endemic species. Therefore, even though, there is no detailed description of the ecological problems of coffee, the implication of this recommendation is that all plantations would have to be replaced with natural forests in the foreseeable future. This is clearly unacceptable to the plantation owners.

It is important to consider that environmentally sound development cannot preclude livelihood and economic options for this region. The role of plantations in the local ecology and economy is critical. The answer will not lie in removing these economic options but in providing better incentives to move the plantations towards greener and more sustainable practices. The plantation owners of Kodagu (as well as the entire region) have challenges – labour shortage is growing and they do not the premium for organic and certified products without expensive

certification. There is also no clear incentive to move towards organic plantations in the domestic market. These issues need to be addressed.

It is also a fact that permit-based regulations are often open for misinterpretation and misuse. A similar issue was raised with the High Level Group on its visit to Maharashtra, when officials explained that there was concern that the WGEEP, if implemented could lead to complete halt of all economic activity. "It would condemn people to live in stone-age". According to them, the guidelines would not allow for any infrastructure development, from renewable energy to inter-basin transfer of water. This would be a problem, they explained, as many regions of the Western Ghats lie in the rain shadow area and need water to be diverted for irrigation and drinking. Clearly, their concern was the impact of the sweeping nature of the recommendations on the region's economy.

It is not possible to design an effective framework for sustainable development based on such an approach. For instance, WGEEP has discussed at length the specific problem of a private windmill project, which was allowed in the Bhimashankar Wildlife Sanctuary. This project was unsanctioned and has had a hugely adverse impact on the rich biodiversity of the sanctuary, which is also home to Maharashtra's state animal, the Malabar Giant Squirrel. The project has led to large-scale erosion and landslides in the area. This observation has led the committee to recommend that there "should be no large scale wind power projects in ESZ1 and projects after cumulative environmental impact assessment in ESZ2 and ESZ3." It is clear that while the Committee has not recommended a blanket ban, the application is open to misinterpretation. It is obvious that the wind energy projects should be brought under the purview of environment and forest clearance (EC and FC)– which is currently not the case. It is also obvious that wind energy projects should not be allowed in ecologically fragile areas, where there is possibility of irreversible damage. Similarly, it is clear that large -scale water diversion projects, which have impacts on the environment and forests, should not be allowed. However, this recommendation should not imply that all water

diversion would be stopped even without any study or scrutiny about the individual project or cumulative impact of the projects.

What particularly concerns the HLWG is that these rules could easily work against the very communities – poor tribal and agriculturists – whose interest WGEEP is working to safeguard. For instance, WGEEP refers to the confusion created because of the rules issued for Ecologically Sensitive Zones (ESZ) near protected areas. It finds that the rule, no artificial lighting will be used in ESZ has been interpreted by forest department to imply that no kerosene or oil lanterns are allowed inside homes located within 10 km of the protected area. “The only fallout of such a programme is that the poor suffer harassment and extortion while the wealthy and powerful successfully flout the regulations”, rightly observes WGEEP. This is what needs to be avoided as far as possible in the regime of management that is implemented for the Western Ghats.

6.3 Sector Level Planning

The HLWG is of the view that the vision of what constitutes environmentally sound and inclusive development is not in dispute. What is in dispute is as follows:

- a. How can environmentally sound growth be promoted – what are the policies needed to encourage development that is inclusive and also sustainable and equitable in this ecologically rich region?
- b. How can the adverse impacts of development projects be rigorously assessed and regulated. What are the institutions of governance that are required to ensure compliance? Should we agree to set up another institution, which will regulate and permit development in the Western Ghats, modeled on the Coastal Zone Authority (as recommended by WGEEP)? Or should the effort be to strengthen the existing institutions and regulations for effective functioning?
- c. How can development be based on decentralized planning and decision-making? In other words, how can local communities including tribals play a

greater role in discussing and deciding on the economic future of the region, which is classified as ecologically sensitive?

HLWG has used high resolution mapping to segregate land use classes in the Western Ghats. This has allowed it to separate the natural landscape from cultural landscape – settlements, commercial plantations and agriculture. The ESA is the presently available medium and high biodiversity region in the Western Ghats. This identified area must be conserved and regenerated and further depletion or degradation must not be allowed. In the Eco-Sensitive Area (ESA), there is a need to maintain integrity of the natural systems. In this region, minimal disturbance will be allowed. It is for this reason that the ESA will not be open to polluting industry, mining or thermal power plants. All other infrastructure development, necessary for the region, will be carefully scrutinized and assessed for cumulative impact and development needs, before clearance.

In this way, HLWG has deviated from WGEEP by not recommending a blanket prescriptive on what constitutes good development, which will be implemented through a prohibitory regime. Instead, HLWG has considered and recommended prohibitory and regulatory regime only for those activities with maximum interventionist and destructive impact on the ecosystem. These activities, as listed below, will be prohibited in the area classified as ESA in this report.

It is our understanding that other economic sectors, such as land use, agriculture or forestry, can best be approached through programmes that provide incentives to change practice. It therefore, recommends that state governments should take into account the need for green growth in the entire Western Ghats during the preparation of regional plans. The regional plan will provide the opportunity to plan for other sectors such as land use, agriculture, water and forestry.

6.4 Development restrictions in ESA

6.4.1 In the area classified as ESA, including its settlements, the following development restrictions will apply:

Mining: Complete ban on mining, quarrying and sand mining in ESA. All current mine areas will be phased out within the next 5 years, or expiry of mining lease, whichever is earlier.

Power/Energy, including hydropower and wind: No thermal power projects will be allowed; hydropower projects must be based on conditions of ecological flow and distance (as provided in section 6.3.2) and will be subject to environment and forest clearance. All projects will require cumulative impact assessments before appraisal.

Industry: All 'Red' category industries will be strictly banned.

Settlements: Building and construction projects of 20,000 sq. m and above will not be allowed. Townships and area development projects will be prohibited.

Other infrastructure and development projects/schemes: Will be subject to environment clearance under Category 'A' projects.

Additional safeguard for forest diversion in ESA: In cases of forest clearance required in ESA, all information of the project, from application stage to approval will be put in the public domain – on the website of MoEF and of the respective forest department of the State. This transparency will add to the scrutiny of the projects, particularly in light of the fact that all information on the ESA will also be in the public domain.

6.4.2 Mining

The mining sector is categorized as 'red' industry and therefore, would be prohibited in the Eco-Sensitive Area of the Western Ghats. It is also clear that this sector has grown without consideration for impacts on the ecology and livelihood

security. The unplanned and unregulated boom in the mining sector have led to protests, which in turn, had resulted in bans and prohibitions in different states. Quarrying and sand mining will also be banned in ESA.

HLWG has received many representations regarding the problems created because of the ban on mining on the availability of laterite stone used for local building purposes in Sindhudurg and Ratnagiri districts of the Western Ghats. HLWG has considered this demand and while it understands the concerns regarding cost of material for housing in this region, it finds that it is unable to make an exception for this material to be mined in ESA. It believes that as the area of ESA has been accurately defined, there will be areas outside which can be used for laterite mining. However, it would recommend that the state government must enforce strictly the guidelines for mining in all cases, including laterite mining.

6.4.3 Power/Energy, including hydropower and wind

Hydroelectric projects, proposed and planned in the forested regions of the Western Ghats have often come in for opposition. It is clear that as much as the country needs hydroelectric power, which is renewable and clean, but it also needs to balance this requirement with the loss of biodiversity in forests and the need for ecological flow in rivers. Both are essential components and policy must determine that these elements are safeguarded. It is also clear that rivers in India play more than just basic ecological functions. These are lifelines for local livelihood, nutrition and water security. The desire to use the river for generating electricity cannot be at the cost of the value of the river. It is this balance that needs to be maintained.

In fact, the potential of hydroelectric power has remained the sole driver for management of the river, particularly in its upper reaches. In the lower reaches, the use of the river for large-scale water diversion projects for irrigation and industrial uses becomes the criterion for development. But these single focus objectives must be enlarged so that the competing – and often the primary needs – can be taken into account at the time of planning and management.

It is also clear that rivers do not know boundaries. Therefore, the conditions for hydropower will be stipulated for the entire Western Ghats and not just for ESA.

HLWG recommends that future hydroelectric projects in the ESA and the entire Western Ghats must only be considered on the basis of the following policies:

- a. Hydropower development must be based on the acceptance of uninterrupted ecological flow at 30 per cent level of the rivers flow in lean seasons till a comprehensive study establishes individual baselines. The 30 per cent ecological flow is mandated in Western Ghats keeping in mind the shorter length of rivers in this region. The compliance with this condition will require rigorous and seasonal data collection in upper reaches of rivers to prepare a hydrological mapping of the basin. It is also clear that this hydrological assessment is critical given the changes in rainfall patterns because of climate change.
- b. Hydropower projects must be considered only after a cumulative impact assessment on the flow pattern of the rivers and forest and biodiversity loss. Currently, individual projects are planned and executed without consideration of these impacts. The Environment Assessment Committees will only consider proposals for individual projects after cumulative impacts have been studied.
- c. Current and future hydropower development in the Western Ghats must be based on clear rules that stipulate distance between projects and that do not allow for over-exploitation of the basin. The minimum distance between projects must be maintained at 3 km in most cases (shorter distance requirement because of the short length of the rivers in Western Ghats as compared to other regions) and not more than 50 per cent of the river basin should be affected at any time. This will require reworking the current projects to provide for optimized energy generation but it is necessary given the need to balance development with ecology.

- d. Better and more balanced planning for hydropower will lead correct tariff of energy, taking into account the cost of raw material of water. Energy costs, world over, take into account the cost of raw material. It is imperative that the current subsidies and distortions in raw material supply for energy are minimized. It is in this context that water, as the raw material for generation of hydropower, must be factored in the project design. The ecological, social and cultural health of the river is a price that cannot be discounted at the time of planning for the feasibility of power.
- e. There is a need to redesign and reevaluate small hydropower projects – below 25 mw as these often have limited impact on energy generation and can lead to huge impacts on ecology. The rationale for small projects must be considered within a policy framework, which provides for mini-grids and local energy distribution.

Thermal power projects are categorized as 'red' and therefore would not be permitted in the Eco-Sensitive Area.

However, wind energy projects are allowed, conditional to study of environmental impact. HLWG recommends that wind energy should be included in EIA notification and brought under purview of assessment and clearance. It is only when the impacts are understood and efforts made to mitigate damage – both environmental and social – that this sector can grow.

6.4.4 Industry

Under the Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981, all industrial and development projects are categorized as red, orange, green. Industries categorized as red or orange have a high pollution load and environmental impact. In the Eco-Sensitive Area of the Western Ghats, red category industry will be completely prohibited.

As the list of industries categorized as 'orange' includes many activities like food and fruit processing there will not be a complete prohibition on this category. But all efforts should be made to promote industries with low environmental impact. The mandatory Consent to Establish (CTE) given by the State Pollution Control Board under the Water, Air Act and Hazardous Waste Rules before a unit can be established must take into account this condition. The proposed Decision Support and Monitoring Centre for Western Ghats will put on its website all industrial units, which have been granted permission to establish and operate in ESA. In case if there is a breach on regulation cases to the CTE condition stipulated for industries with low environmental impact, MoEF may consider imposing ban on orange category industries in the ESA based on the information provided by the proposed Centre.

6.4.5 Settlements

Under EIA notification 2006, there are two levels of regulations for settlements, to ensure that urban growth is managed and is sustainable:

- building and construction projects above 20,000sq. m and below 1,50,000 sq. m, which are categorized as 'B' and require clearance from the State Environment Impact Assessment Authority (SEIAA).
- township and area development projects with built up area of above 50 ha and above 1,50,000sq. m are categorized as B1 and require detailed environmental impact assessment and clearance from State Environment Impact Assessment Authority (SEIAA).

In the ESA, which is well-defined area, emanating from the natural landscape of the Western Ghats, building and construction projects 20,000sq. m and above will not be allowed. Townships and area development projects will be prohibited. Therefore, only projects, which are not currently under the EIA notification and therefore, not considered to have adverse impacts on the environment, will be permitted.

6.4.6 Infrastructure including transport

There is no doubt infrastructure is critical for economic growth and livelihood security in any region. But the question is how impacts can be mitigated and most importantly, how the infrastructure development can be planned so that it is cognizant of the biodiversity value of the ecosystem. The important requirement is to strengthen the public hearing and environmental assessment procedures so that people's concerns are heeded and there is careful scrutiny of impacts.

It is also important that cumulative impacts of the development projects are considered before moving ahead. HLWG recommends that all proposed infrastructure projects, including transport, must be considered only after cumulative impacts are studied and assessed. All these projects will be considered by the Central government under Category A.

Railway projects do not require EIA clearance. It is also clear that railways, while providing an environmentally sound transport option, can have major implications on wildlife, forests and biodiversity. In the recent past, many incidents of accidents involving wild animals because of railways has come to light. It is clear that future planning for railways must be cognizant of environmental safeguards.

6.4.7 Additional safeguard for forest diversion in ESA

Within the ESA, forest landscapes are a key component. It is clear that forest clearance will need careful scrutiny and assessment to ensure that the area under ESA is not decimated or degraded further. The HLWG has already recommended for development restrictions, in which case, no forest clearance can be given. But there will be other cases, such as infrastructure projects, which will need to be considered for approval.

In all these cases of forest clearance required in ESA, all information of the project, from application stage to approval will be put in the public domain – on the website of MoEF and of the respective forest department of the State. This transparency will

add to the scrutiny of the projects, particularly in light of the fact that all information on the ESA will also be in the public domain.

6.5 Incentivizing green growth in Western Ghats

6.5.1 Forest management for inclusive development

The rich ecological diversity of the Western Ghats is intrinsically linked to the forest wealth of the region. Water security of the region is also linked to the forest wealth. Equally importantly, economic and livelihood options are enjoined to forest wealth. Therefore, the imperative to protect, conserve, regenerate and grow forest wealth in this region cannot be underestimated or undermined. The objective has to be to build an effective framework of governance and management, which will allow for this resource to be both protected as well as sustainably utilized for livelihood security. It is clear that regime for forest management will determine the economic future of the region. This is what needs to be reviewed and reworked.

The Decision Support and Monitoring Centre for Western Ghats should study and suggest policies on the following:

Integrate forest accounts, including measurement of the tangible and intangible benefits into state and national economic assessment. It is time to re-position renewable resources like forests in the economic and development discourse of the country. Today the constituency for the protection of forests is shrinking. This is when the forestlands of India are under huge threat. Over time, the infrastructure imperative will take away forests, which are the last remaining common lands in the country. At the very outset it is important to value benefits derived from forests and to incorporate this into state and national accounts. But this valuation must not stop at carbon storage or other important intangible benefits of forests. It must account for the million reasons why forests play critical roles in the current livelihood support of people.

Improve productivity of forests for economic benefits for local communities. It is important to improve the productivity of forests for economic benefits. The region needs to plant, to harvest and then to build economic value-addition from forests, including minor forest produce. But it is also clear that this 'business' of planting trees that survive cannot be successful without people who live in the forest areas. Currently, India's imports of forest produce are increasing – from pulp to timber; revenues from forests are declining in state budgets. State Government's do not value the forest resource as a natural asset, which can be utilized for economic gains in a sustainable and renewable manner. The diversion of forests for uses, considered to be productive and remunerative, becomes the norm. The objective of working plans in forest areas is to improve economic productivity – from timber to non-timber produce – on a sustainable basis. But most importantly, the income from forests must provide benefits to villages living around the forests. It is important the current rules of timber transit, which do not incentivize forest production on private lands and community forestlands, should be reviewed and revised. The Forest Rights Act has brought welcome changes in the categorization of minor forest produce, including bamboo, and these efforts to build forest-based economies should be promoted.

Compute forest ecosystem services to make payment for standing forests in Eco Sensitive Areas/Zones. The ecosystem service fund should go to villages living around the forests. These local communities are taking the burden of conservation – as declaration of ESA/ESZ is reducing their developmental options. This move will build local support for forest protection and local economies. This will also ensure that forests are demarcated in terms of productive and conservation functions.

At the moment the country has a provision to pay the "net present value" once permission has been given for diversion of forestland to non-forest uses. But there is no payment for standing forests. For the past many years, chief ministers have demanded that they be paid to protect forests. Finally, the 12th Finance

Commission, in 2004, agreed that states must be paid for the maintenance of forests—some Rs 1,000 crore between 2005 and 2010. The amount is not substantial, but the principle was established.

In 2010, the 13th Finance Commission reiterated the need to compensate states and enhanced the allocation to Rs 5,000 crore over the next five years. This must be supported. In addition, the 14th Finance Commission should substantially increase the fund and also consider how local communities living in and around forest areas and ESA/EZA should be allocated money directly.

Compute the hydrological service provided by forests and their livelihood benefits on local communities. Unfortunately, there has been little work done to thoroughly assess the role of forests in provisioning and modulating the hydrological cycle that determines the economic wellbeing of the entire region. Yet, we know that without the forests, economic growth will be severely jeopardized. For instance, the city of Mumbai, gets its water supply from the forested watersheds located over 100-110 km away. The city, which is already water stressed, will be in dire straits, if the forests of Western Ghats, are not protected or regenerated. Currently, the city also does not pay for the ecological cost of conservation of the forests. Similarly, irrigation and hydroelectric projects depend on forests to modulate flows and storage. The fact that the hydrological service is not computed ensures that there is little understanding of the role of forests and the necessity for protection.

6.5.2 Promoting sustainable agriculture

The demarcation of Eco-Sensitive Area has taken care to exclude the cultural landscape – agricultural and plantation areas. This is important, as both activities are critical livelihood and economic mainstays of the region. But agriculture cannot be sustained without forests, which provide nutrients and water. It is in the interests of agriculturists and plantation owners to protect and safeguard biodiversity in and around the forests.

HLWG recommends a focused programme to incentivize growers in the Western Ghats to move towards organic cultivation and to build a unique 'brand' for such premium products in the world market. These practices could be built on the 'Kodagu' coffee type plantation, which make best use of local biodiversity protection in economic activity generation could be incentivized. It would also recommend that different agencies – APEDA, Spice Board, Coffee Board etc – should convene a meeting to discuss and resolve the barriers to organic and sustainable production in the region. APEDA's Tracenet programme, which builds an electronic database of all practicing organic farmers and facilitates certification could be used as the basis for further work in this area.

6.5.3 Ecotourism for local benefits

It is clear that tourism, particularly, after the declaration of portions of the Western Ghats as a world heritage site, can be an important source of livelihood and economic growth in the region. But it is equally clear that tourism industry, if not regulated, can be the cause of environmental degradation. The January 2011 report on Tourism in Forest Areas of Western Ghats equations lists the problems created by unplanned and unregulated tourism and urbanization in the ecologically sensitive region. According to this assessment, tourism has been promoted beyond the carrying capacity of the settlements and has led to scarcity of water, increased sewage and solid waste and forest degradation. Clearly, the way ahead is to promote this important economic activity, but in ways, which mitigate damage.

In order to promote sustainable tourism HLWG would recommend:

a. Existing regulatory provisions to assess environmental impact of tourism projects must be strengthened: The Forest Conservation Act and the environment impact assessment under the Environment Protection Act allow for careful scrutiny of projects, before clearance. However, these processes have often being bypassed and certainly been weakened because of poor institutional abilities to assess environment; inadequate consultation with local communities and poor monitoring

of the stipulated conditions for environment and forest management. In future, all projects that fall under the Eco-Sensitive Area must be identified as those require extra scrutiny and assessment. All these projects, before assessment and clearance, must be identified as situated in the Eco-Sensitive Area of the Western Ghats and this information must be available prominently on the website of the Central and state ministries.

b. The tourism policy for Eco-Sensitive Area of the Western Ghats must provide local community ownership and benefits: Key State Governments – Karnataka, Kerala, Tamil Nadu – have ecotourism policies to govern the growth of this sector with responsibility to the environment. The MoEF has also recently issued guidelines for State Governments to develop tourism policies around national parks and sanctuaries to promote conservation, which benefits local communities. In the Eco-Sensitive Area of the Western Ghats, policies must actively promote homestead tourism and ensure that there is a substantial cess imposed on large tourist establishments to pay for environmental management of the fragile region and for local community benefits.

c. All tourism hotspots in the Eco-Sensitive Area will be monitored for compliance and assessed in terms of impact. The proposed Decision Support and Monitoring Centre of Western Ghats will monitor these policies annually and all hotspots of tourism will be regularly audited for compliance. The Centre will also develop benchmarks for good tourism – sustainable and equitable – to check performance and take corrective steps.

6.6 UNESCO Heritage tag for Green Development

In 2012, the UNESCO World Heritage Committee declared specified areas comprising 39 serial sites of the Western Ghats as World Heritage sites of outstanding universal value. Under its declaration, it cited that the “significant feature of the Western Ghats is their exceptionally high level of biological diversity

and endemism. This mountain chain is recognized as one of the world's eight 'hottest hotspots' of biological diversity along with Sri Lanka."

The key criterion for the declaration of the Western Ghats as heritage site was endemism. In this biodiversity hotspot 54% of tree species; 65% of amphibian species; 62% of reptile species and 53% of fish species are endemic. In addition, a large number of flagship mammals and ecosystems are found in the Ghats.

The nominated sites include 39 hotspots, including 14 important bird areas and 3 Alliance for Zero Extinction sites and a number of forest reserve areas of high conservation value. The IUCN tasked to evaluate the nomination noted that the submitted maps show a number of disturbed areas – including settlements, artificial reservoirs, plantations and agricultural areas, which do not qualify for heritage status. Based on these observations, in May 2012, months ahead of the final committee meeting, IUCN had recommended that Government of India should revise the nominated area by further refining the boundaries to ensure exclusion of disturbed areas and to enhance contiguity (IUCN, 2012). The Government of India satisfied the World Heritage Committee on the observations of the IUCN, and finally succeeded in getting the UNESCO heritage tag for the 39 serial sites.

The UNESCO Heritage Tag provides global recognition of the enormous natural wealth of the Western Ghats. Countries want the heritage tag because it provides for high tourism value – people all over the world want to visit these areas, which have been classified as outstanding.

But the tag also comes with responsibility. Under the Operational Guidelines to the World Heritage Convention, "the state parties are invited to inform the secretariat of their intention to undertake or to authorize major restorations or new constructions, which may affect the outstanding universal value of the property." In addition, there is a provision for 'reactive monitoring', which is done if there is possibility of deletion of any property from the list.

While granting approval World Heritage Committee of UNESCO-WHC stated that the India would:

1. Take into account the outcomes of scientific studies of institutes specialized in the field, and their recommendations,
2. Ensure proactive tourism management in anticipation of increased future visitation, and to ensure that visitation remains within the capacity of the property,
3. Ensure any proposed infrastructure developments are subject to rigorous prior impact assessments, to determine if they are appropriate, including via reporting to the World Heritage Committee in line with paragraph 172 of the Operational Guidelines to the World Heritage Convention,
4. Establish improved coordination and integration between the components, particularly through the preparation and implementation of an overarching management plan or framework for the serial property as a whole.

The HLWG notes that the UNESCO Heritage tag is an opportunity to build global and domestic recognition of the enormous natural wealth that exists in the Western Ghats. The 39 sites are located across the Western Ghats and distributed across the states (Kerala 19), Karnataka (10), Tamil Nadu (6) and Maharashtra (4). The boundary of the sites, are in most cases, boundaries of the legally demarcated national parks, wildlife sanctuaries, tiger reserves and forest divisions and therefore, already accorded with high level of protection. The Eco-Sensitive Area mapping and demarcation done by HLWG also indicates that all sites are within this area. The state government's should view this development and build a plan to protect, conserve and value the resources and opportunities of the region.

6.7 Incentives to individuals, communities and states

Environmentally sound development cannot preclude livelihood and economic options for this region. While some kinds of economic activities have been banned in the ESA, the model for protecting livelihoods of local people includes:

- (a) Collection and value addition for non-timber forest products with facilities or small establishments for value addition. Collection and transport from within ESAs with local community involvement may need infrastructural and financial support. This activity should be implemented through a network of community based organizations throughout the Western Ghats with S&T support from organizations like DBT, DST and CSIR.
- (b) Eco-tourism as per MoEF guidelines involving local communities as stakeholders as well as making use of the World Heritage tag to which some parts of the Western Ghats now have.

Most of the activities mentioned above will generate household incomes and profit in the long run. In the short run, they may need support, which may be provided *to individuals and communities through the mechanism of "viability gap funding"*.

Furthermore, there is a lack of incentives as there is no payment for standing forests. The fact that forests are a part of the natural capital of the country is not built into current financial arrangements. Estimates of the value of forests in all Western Ghats states exist and should be used appropriately to leverage payment mechanisms.

The HLWG recommends that the Western Ghats States should come together to negotiate for a grant-in aid from the Centre. The financial arrangement should be of the nature of a debt for nature swap. This is a mechanism whereby part of the outstanding debt of a state is swapped for new constructive initiatives by it to protect its natural resources. A part of these payments be retained by the state governments and a part be used to finance local conservation trust funds (as in several countries), which disburse grants to community projects for improving forest productivity and ensuring sustainable forest based livelihoods in ESA.

HLWG recommends that there should be arrangements for Payments for Ecosystem Services accruing from ESA and non-ESA regions within the Western Ghats. For example, hydrological services to urban areas. A direct link between urban and rural local governance bodies will need to be created to enable negotiation between them. Further, a part of the budgets of municipalities be set apart for newer initiatives under this head, with provision of disincentives for non-implementation. The HLWG recommends that individual State Governments pursue such initiatives creating possibilities for a dialogue on this issue between municipalities and relevant panchayats within their states.

There is a need for convergence of rural development and conservation. The greening rural development report of the government has enormous relevance for the Western Ghats. The HLWG notes that the convergence of conservation with rural development is now a part of the government's forward-looking agenda. A recent (December 2012) report from the Ministry of Rural Development asks for funding in development programmes funded through MNREGA and other such programmes to promote activities that conserve water and soil and promote organic agriculture. People also demand for such activities.

However, the pervading understanding of 'economic planning' does not extend to an area based ecological planning. The HLWG perceives and recommends that one way forward is to consider extending Entry 20 (Economic Planning) in the Concurrent List, and introduce an appropriate new entry, say 20A, suitably titled, to ensure that developmental projects and activities are undertaken within an overarching environmental and ecological framework.

The Western Ghats Development Programme (WGDP) cell in the Planning Commission co-ordinates the Program. Major activities covered under WGDP are watershed projects, schemes for livelihood, critical gap filling infrastructure projects like foot / hanging bridge, vented Dams, projects for SCs/STs and upliftment of

tribals and forest based programs. During the 11th plan (2007-12) Rs. 533.59 crores were released to the 5 states (175 talukas) covered under the program.

The strategy evolved for the continuation of the WGDP, in the 12th plan include going beyond the Watershed based development, considering the fragility of the habitat, and development needs of the people i.e. a Watershed + approach – an approach which emphasizes conservation, minimal ecological disturbance, involvement of locals along with Sustainable model of economic development and livelihood generation with enhanced allocation.

After a careful consideration of the strategy proposed, the HLWG recommends the following;

- a) Continuation of the WGD program with an enhanced allocation of Rs. 1000 crores.
- b) Continuation of the special category status to the program i.e. cost sharing of 90:10 Centre and State.
- c) Special dispensation by the 14th Finance Commission for the WG based on Ecologically Sensitive area (ESA) in the states.
- d) Revival and reconstitution of the High level Committee consisting of CM's of the six States, for monitoring the implementation of the recommendations /suggestions of the HLWG and existing legislations and periodically reviewing the status report of the Decision Support and Monitoring Centre for Western Ghats.
- e) Setting up / strengthening of the State WG cell currently functional in the Planning /RD Departments in the states with a mandate to liaise with SPCB, State Department of Forests, SEAC and SBA, and Regional office of the MoEF and service the information and decision support needs of the State Government.

6.8 The Framework for Governance and regulation of ESA

6.8.1 The Eco-Sensitive Area, once identified and demarcated, will need an effective governance framework to ensure that can be protected, regenerated and managed sustainably to meet livelihood needs. We need institutions, which are capable of responding to local concerns and can take timely decisions, to balance people's developmental needs with environmental protection. This, when it is clear that resource management issues are complex, with competing interests and require careful scrutiny and assessment. Furthermore, any system, which is based on a permit and prohibitory regime, needs careful and nuanced decisions, particularly when they impact the poor.

The WGEEP had a specific Terms of Reference to "recommend the modalities for the establishment of Western Ghats Ecology Authority under the EP Act, which will be a professional body to manage the ecology of the region and to ensure its sustainable development with the support of all concerned states." Based on this, the WGEEP recommended a structure, which included a national and state level authorities as well as district ecology committees.

All State governments, who have formally responded to the WGEEP report, have rejected the creation of yet another centralized authority. They have pointed out that the federal system of the country allows states to take decisions and have expressed concern at the attempt to centralize decisions through the creation of this Authority.

HLWG recommends that there is clearly a need to strengthen as well as reform the current system of environmental governance to enhance effectiveness. The HLWG recommends that this be done first before new institutions and authorities are created. Otherwise, the problems of current institutions will continue to weaken decisions in the future as well. Given this situation, HLWG has taken the view that it will recommend a framework for governance and regulation of ESA, which draws on

current regulatory institutions for decision-making, but simultaneously, will strengthen the data monitoring systems and the participation and involvement of local communities in decision-making.

The current environmental management system is either based on a single project-based approach or an area-based approach. Given the scale of interventions and given the urgency for protection and regeneration, HLWG would recommend the need to shift to regional based approaches and cumulative assessments, which determine combined impacts of projects across the region or the river-basin.

6.8.2 Strengthening existing regulatory institutions

It is clear that we need to fix the current institutional system and make it more effective. It is for this reason that HLWG is of the strong opinion that the country must reform and strengthen the current institutions of environmental regulation and management in the country in general and in Western Ghats region in particular.

State Pollution Control Boards:

The State pollution control boards are the foundation of the environmental governance infrastructure. But these institutions lack regular in-service training of personnel, funds, and systems of management that are accountable and transparent. Without attention to these issues of institutional strengthening we cannot move ahead in dealing with the enormous challenges of sustainable resource management and development.

State Forest Departments:

The State Forest Departments of the Western Ghats need to be sensitized towards the importance of biodiversity, ecosystem services and local bioresources. The State frontline staff of Forest Departments needs to be equipped with modern systems of communication and surveillance. Regular in-service training of Forest officials needs to be undertaken in the area of wildlife management.

State Biodiversity Authority:

Establishment of Biodiversity Management Committees (BMC) at the Panchayat level especially in the rich biodiversity areas is a priority. The BMCs so established should take up preparation of Peoples Biodiversity Register in mission mode so as to document local biodiversity, bioresources and traditional knowledge. The BMCs should become a focal point for peoples participation with reference to local ecology and biodiversity. The concerned State Government should provide adequate funds to the State Biodiversity Boards and BMCs.

Environment and Forest Clearance Systems:

Similarly, environment and forest clearance systems both at the Centre and State must be strengthened to deepen the process of public assessment and scrutiny of all projects. In addition, there is an urgent need to build capacity to monitor compliance with conditions set for clearance. The strengthening of monitoring procedures is needed for credible deterrence for non-compliance and for environmental integrity. This agenda is urgent and must get the highest attention.

HLWG recommends that it is important that MoEF should review the functioning of the institutions so that they have necessary powers to ensure compliance. Most importantly, MoEF must direct state governments to complete the process of preparation of zonal plans, with maximum consultation with local people. The ESA mapping should be put in the public domain so that plans are based on current developments, which exist on the ground. It is critical that eco-sensitive area mapping must be sensitive to the livelihood and developmental needs of the poorest. There should be an annual assessment based on the changes in the ESA, which is prepared and presented to the public.

6.8.3 Decision Support and Monitoring Centre for Western Ghats

The HLWG recommends for setting up a “Decision Support and Monitoring Centre” for Western Ghats as a part of Governance of the region. The details on the proposed Centre are given in Chapter 7.

6.8.4 Conclusions

To sum up, the HLWG recommends the following:

1. The Central government should immediately notify the ESA area, as demarcated by HLWG in public interest. It must be noted that there is an urgency to protect and safeguard the remaining biodiversity rich areas of Western Ghats. In 2011, recognizing this imperative, the Central government had set up the Western Ghats Ecology Expert Panel under Professor Madhav Gadgil to recommend how this can be done. The Panel in its deliberations spread over 18 months had large number of public consultations across the different states of the Western Ghats. It recommended the need for effective action to protect the region.
2. The HLWG has also had a number of consultations, particularly with state governments and their agencies. After extensive deliberations and efforts to determine the ESA, it has been found that the natural area of the Western Ghats is 41 per cent and ESA only 37 per cent. The need for action is evident. For this reason, HLWG is recommending for immediate notification, the identified area as ESA. In this notified area, development restrictions as recommended in this report will apply.
3. State Governments will immediately put into place structures for effective enforcement of development restrictions and ensuring sustainable development in ESA. The MoEF will ensure that all projects located in the districts comprising the Western Ghats are required to submit information about distance and proximity to the ESA.
4. The Planning Commission should create a special Western Ghats Sustainable Development Fund, which will be used to promote programmes specifically designed to implement an effective ESA regime and incentivize green growth in the region.

5. The 14th Finance Commission should consider options for ecosystem and other service payments in the Western Ghats as well as allocation of funds to ESA areas. It should also consider how these funds for environmental management would be made available directly to local communities who live in and around Western Ghats ESA.
6. MoEF should set up the Decision Support and Monitoring Centre for Western Ghats, with the mandate to assess and report on the state of ecology of the entire region. The Centre will be hosted by one state and will have joint management of all six states of the Western Ghats. The Centre will have a decision support function in the implementation of ESA. Its reports will be in the public domain.
7. MoEF should put the ESA map in the public domain, which will enable scrutiny and transparency in decisions.
8. All development projects located within 10 kms of the Western Ghats ESA and requiring environment clearance (EC) shall be regulated as per the provisions of the EIA Notification 2006. .
9. The villages falling under ESA will be involved in taking decisions on future projects. All projects will require prior-informed consent and no-objection from the *gram sabha* of the village. The provision for prior informed consent under the Forest Rights Act will also be strictly enforced.