

EIA and Tourism: Diluting Environmental Safeguardsⁱ

EQUATIONS

Introduction

The 'Environment Clearance' process is a critical regulation to evaluate environmental impact of large development and industrial projects. An important tool in this process is the Environment Impact Assessment (EIA). "EIA is a planning tool that is now generally accepted as an integral component of sound decision-making. The objective of EIA is to foresee and address potential environmental problems/ concerns at an early stage of project planning and design. EIA systematically examines both beneficial and adverse consequences of the project and ensures that these effects are taken into account during project design." (Govind Singh, 2007)

EIA is a tool to ensure sustainable development through comprehensive investigation and evaluation of potential impact of a proposed development project or activity. Though it has been used in some countries from the late 1960's, it gained wider applicability after the publication of the Brundtland Report (World Commission on Environment and Development, 1987).

First notified in 1994, by the Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India, under the Environmental (Protection) Act 1986, the notification mandated EIA for expansion or modernization of any activity or for setting up new projects listed in schedule of the notification. However, the notification was amended nearly twelve times, each time diluting the regulatory mandate of the notification. The MoEFCC carried out studies on the effectiveness of the 1994 notification and concluded that it was procedurally cumbersome, fraught with delays, requiring disproportionate amounts of details with each application, time consuming, and resulting in poor quality reports by consultants.

In 2006, the MoEFCC introduced a new EIA notification, replacing the 1994 (much amended) version. It is this new notification and its implications on tourism that is subject of scrutiny of this paper.

1. EIA and its implications on the tourism industry (formal and informal)

The development of the tourism industry has many spin-offs both positive and negative. Proponents of tourism claim it contributes directly to the economy as it increases government revenues, increases foreign exchange revenues and generates employment. On the other hand, the purely economic perspective on tourism ignores the adverse ecological, cultural and socio-political impacts of tourism. "Without careful attention to the balance between the volume and type of tourist activity, and the sensitivities and carrying capacities of the resources being developed, tourism projects can be environmentally harmful and economically self-defeating."ⁱⁱ

EIA is an important tool in assessing the impact of tourism development projects, so as to ensure that the best available sustainable option or model is chosen. It is widely acknowledged that tourism is a complex industry with multi-scalar activities and wide ranging interface between the communities and the tourists. The impacts therefore are beyond the immediate environment and needs to take into account social and cultural consequences of increased tourism activities. For instance, large numbers of tourists in a relatively small area leads to pollution, waste, and adversely impacting the basic needs of the local population, putting local infrastructure and habitats under enormous pressure.ⁱⁱⁱ

According to the Third Assessment of Europe's environment (EEA, 2003), the direct local impacts of tourism on people and the environment at destinations are strongly affected by concentration in space and time (seasonality).

They result from:

- The intensive use of water and land by tourism and leisure facilities.
- The delivery and use of energy.
- Changes in the landscape coming from the construction of infrastructure, buildings and facilities.
- Air pollution and waste.
- The compaction and sealing of soils (damage and destruction of vegetation).
- The disturbance of fauna and local people (for example, by noise).

The negative impact of tourism has raised several concerns and efforts at evolving sustainable tourism models are on the rise. According to Hunter, four possible sustainable tourism approaches – tourism imperative, product-led tourism, environment-led tourism, and neo-tenuous tourism – are the way forward.

In this context, research on the carrying capacity of the tourism projects, including the tricky concept of social carrying capacity are sought to be quantified and studied (Batta, 2000). The World Tourism Organisation (WTO, 1993) defines the carrying capacity, as, “the level of visitor use an area can accommodate with high levels of satisfaction of visitors and few impacts on resources.” The carrying capacity has been classified into three broad categories of natural carrying capacity, social carrying capacity and economic carrying capacity. Given this, EIA is a critical process in ensuring the growth of sustainable tourism models in the country, especially within the formal tourism industry.

The earlier notification of 1994 (in its amended form) provided mandatory EIA for select tourism projects and contained an investment criteria (all projects costing more than Rs.5 crore); projects within protected areas, projects located within 500 meters of the coast; and above 1000 m above sea level. An EIA process was essential for both the design stage of a project and also its implementation stage. However, the 2006 notification does not contain a category called tourism, thus diluting the efforts at building sustainable tourism projects.

The new notification lays down the modified requirements for environment clearance. The projects or activities requiring prior environmental clearance from the concerned regulatory authority for matters falling under category 'A' in the Schedule and at the state level the State Environment Impact Assessment Authority (SEIAA) for matters falling under category 'B' in the Schedule, before any construction work, or preparation of land by the project management. These include:

1. The new projects or activities listed in the Schedule.
2. Expansion and modernization of existing projects or activities listed in the Schedule to the notification with addition of capacity beyond the limits specified for the concerned sector, that is, projects or activities which cross the threshold limits given in the Schedule, after expansion or modernization.

According to the notification, all projects and activities included as category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix shall require prior environmental clearance from the Central Government in the Ministry of Environment, Forests and Climate Change on the recommendations of an Expert Appraisal Committee to be constituted by the Central Government. All projects or activities included as category 'B' in the Schedule, including expansion and modernization of existing

projects or activities as specified in sub-paragraph (ii) of paragraph 2, or change in product mix as specified in sub-paragraph (iii) of paragraph 2, but excluding those which fulfill the General Conditions stipulated in the Schedule, will require prior environment clearance from the SEIAA. The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee. The Expert Appraisal Committees at the Central Government and SEACs at the State or the Union territory level shall screen, scope and appraise projects or activities in category 'A' and category 'B'. The SEAC is to be constituted by the Central Government in consultation with the concerned State Government or the Union territory administration with identical composition. The EAC/SEAC appraisal of projects (A or B) consists of four stages – the process of screening, scoping, public consultation and appraisal.

a) Screening is only done for category B projects. It involves scrutiny of nature and location of the project to determine need for conducting environmental studies for the preparation of EIA report.

b) Scoping involves preparation of EIA reports for Category A and B1 projects as per Terms of Reference (TOR) determined by EAC/SEAC to understand project's environmental costs and benefits.

c) The public hearing at, or in close proximity to the site is to be conducted by the State Pollution Control Board in the specified manner and forward the proceedings to the regulatory authority concerned within 45 days of a request to the effect from the applicant. The SPCB invites written responses from the public by making draft EIA report available in Panchayats/offices. The applicant finalizes the EIA report based on comments received in the public hearing and sends it to EAC/SEAC for Appraisal. The EAC/SEAC scrutinizes application, final EIA reports, outcome of public hearings and sends its recommendations for final approval or otherwise to the MoEFCC/SEIAA respectively.

d) The fourth stage is appraisal, after which the grant or rejection of prior environmental clearance is finally made. If the MoEFCC/SEIAA disagrees with recommendations of the EAC/SEAC, reconsideration follows but the final approval remains with the MoEFCC/ SEIAA. Final decision of MoEFCC/SEIAA should be conveyed to the applicant within 105 days of receipt final EIA report or 210 in case of reconsideration.

General and Special Conditions:

As a general condition, it states that any project or activity specified in Category B will be treated as Category A, if located in whole or in part within the 10 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted Areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

“The procedures for consideration of applications for grant of environmental clearance under the EIA notification, 2006 to projects which involve forest land, have been dealt with by the MoEFCC, Government of India under a set of office memoranda dated 2-12-2009, 31-03-2011, 26-04-2011, 09-09-2011 and 01-08-2013. These procedures now stipulate that where a diversion of forest land is involved, the terms of reference under the EIA notification of 2006 (scoping) should not be granted unless [credible proof of making an application for Forest Clearance has been submitted. For the final appraisal, the Committee and the Competent Authority (setup under the EIA notification) will take a decision on the application for Environmental Clearance based on merits, taking cognizance of the involvement of forest land. If the clearance is decided to be granted the project proponent would be informed and given an opportunity (within 12 months extendable to 18 months) to submit the stage 1 forest clearance. The final Environmental Clearance will be issued only thereafter. If the stage I forestry

clearance is not granted in this period the Environmental Clearance would stand rejected and the whole process would have to be done again.

Guidelines for taking up non forestry activities in wild life habitats and eco sensitive zones have been prescribed by the MoEFCC through an amendment notified on 1-12-2009 in the EIA notification of 2006 and also through guidance documents issued in 15-03-2011 (now superseded by 12-12-2012) and 12-12-2012. Under these guidelines the proposals for use of areas inside protected areas (Wild Life Sanctuaries, National Parks, Tiger Reserves, Conservation reserve) involves consideration and recommendations of the standing committee of the National Board for Wildlife (NBWL). Apart from this, activities within eco sensitive zones and in case no eco sensitive zone has been notified then within 10 kms form boundaries of National Parks and Wild Life Sanctuaries will also need to obtain recommendations of the standing committee of NBWL.

It has also been provided that this permission will be taken for conduct of Environment Impact Assessment studies within protected areas and the approval of the Honorable Supreme Court if diversion/denotification is involved.

The EIA notification, however, restricts the requirements to the recommendations or comments of the Chief Wild Life Warden along with the application for Environmental Clearance.”^{iv}

Further the Special Condition notes that in the case of industrial estates, if any one industry has obtained clearance, the other individual industries do not require specific clearance. This may provide a loophole for many other industries located within the Industrial complex or park as they do not obtain clearance.^v

2. Comparison between the EIA, 1994 and 2006 Notifications:

EIA 1994	EIA 2006
<p>Authority granting EIA Only the MoEFCC grants environmental clearances</p>	<p>Authority granting EIA Greater decentralization permitting certain projects listed in the Schedule to be cleared by the SEIAA/ State Expert Appraisal Committees (SEAC) alongside the EAC at the Central level.</p>
<p>Broad Criteria The broad criteria for determining the projects that required environmental clearance was based on investment criteria</p>	<p>Broad Criteria The criterion for determining the potential impacts depends on the</p> <ul style="list-style-type: none"> - spatial extent of the potential impacts and - potential impacts on human health and natural and manmade resources.
<p>Categorisation The category of groups contained within the schedule are A and B1 & B2</p>	<p>Categorisation Category A is at the Central level, Category B are at the State Level (with exceptions as contained in the General Condition).</p> <p>Category B at the state level are further categorized into two – those requiring an Environment Impact Assessment Report (B1) and those that do not require the EIA Report (B2).</p>
<p>Criteria for buildings that require EIA. It required new townships, industrial townships, settlement colonies, commercial</p>	<p>Criteria for buildings that require EIA. Building and construction projects with more than 20,000 sq meters to 150,000 sq meters of</p>

<p>complexes, hotel complexes, hospitals and office complexes, for 1000 persons or below with an investment of Rs 50,00,00,000 or below.</p> <p>In 2004, the rules further stipulated that all those new construction projects should also be included that discharge sewage of 50,000 litres per day.</p> <p>With the inclusion of the sewage clause the EIA had tightened the grip on the most of the buildings that would render the maximum environmental damage.</p>	<p>built up area under category A and townships covering an area more than 150,000 sq meters to 50 hectare or built up area under category B will require EC.</p> <p>With this major change in the clauses a large number of smaller projects went out of the ambit of the EIA from SEIAA.</p>
<p>Screening Mandated by the notification</p>	<p>Screening Mandated by the notification</p>
<p>Scoping Scoping was done by consultant or proponent with an inclination towards meeting pollution control requirements, rather than addressing the full range of potential environmental impacts from a proposed development.</p>	<p>Scoping The onus of scoping on the expert committee based on the information provided by the project proponent. The ToR of the project will be decided by the SEAC at the State level and the EAC at the Central level. The final ToR will be posted on the website for the information of the public.</p>
<p>Appraisal and Post Monitoring</p>	<p>Appraisal and Post Monitoring No mention of post monitoring which is a critical component of the EIA process. No independent monitoring of the project's compliance with clearance conditions and relies solely on half-yearly reports furnished by the project proponent.</p>
<p>Public Consultation</p>	<p>Public Consultation No changes with the process of public consultation appearing at the end of the EIA process. Additionally, if the authorities feel that the situation is not conducive for a public hearing, they have the discretion not to conduct one. The consultation process has been split into a formal process for the local people and only written submission for other interested parties such as NGOs/civil society organizations.</p>
<p>Time period Rapid EIA - between 14 to 19 months. Comprehensive EIA – 21 to 28 months.</p>	<p>Time period Category A projects – To be completed within 10.5 to 12 months.</p>

Dilution of public consultations process:

An important component of the EIA process is the public consultation. The 2006 notification dilutes this process by exempting certain category of projects from public consultation and further limiting the process only to the local affected by the projects.

As noted above, the new EIA notification 2006 categorises all projects into category A and B, the former being cleared by the Central Environment Clearance Committee and the latter by the State Environment Impact Assessment Authority or State Environment Clearance. Category A projects are to develop an EIA based on a Terms of Reference and presented to the MoEFCC. Category B projects are to be screened and further subdivided into B1 and B2, and the requirement of an EIA and public consultation being dispensed for B2 projects.^{vi}

Additionally, the scope of the public consultation has been restricted to local persons who are directly affected by the project and seeks to exclude larger civil society voices that had a significant role to play in ensuring an effective and transparent public hearing process. Further the public hearing contributes only to the finalisation of the EIA report and is not critical to the decision making process. In sum, the public consultation is reduced to a mere procedural requirement and is not conceived of as an effective tool for public contribution to the decision making process.

More critically, the process of public consultation can be done away with at the discretion of the bureaucracy, if the conditions for holding a public consultation are found to be not conducive. It is also important to note that no public participation is envisaged at the stage of scoping of the project.

EIA notification in relation to Environmental Laws:

In complying with the EIA notification, a range of State and Central legislations require to be simultaneously complied with. Both an expansion project and a new project require compliance with legislations such as the Environment Protection Act, Forest Conservation Act, Wildlife Protection Act, Water and Air (Control of Pollution) Act, to name a few. Annexure 1 details the interface of the EIA Notification, 2006 to these laws. Additionally a variety of legal principles such as Polluter Pays Principle, Doctrine of Public Trust, Precautionary Principle, etc., require to be incorporated in the EIA process. It is important to note here, that there are serious gaps in the norms and rules that govern aspects having a bearing on the EIA process. For instance, there are no mandated standards on the quality and quantity of water to be supplied that is applicable to all parts of the country. This lack of mandatory standards means that there are no benchmarks against which evaluation criteria can be set to determine the environment impact.

The notification also reduces access to the EIA document from a mandatory one to that of being made available upon written request, which is in clear violation of the order of the Supreme Court of India which mandates that access to public records with the environment protection authorities should be freely available (Sridhar, undated).

In a bid to clear the large scale infrastructure projects, the Cabinet Committee on Investment headed by the Prime Minister was set up in December 2012. It sought to fast track clearances to projects that are 1000 crore or above. Although a temporary and desperate measure to kick start the economy during the recession years, the environmental clearance process was also seen a serious impediment to the ‘growth’ process, requiring it be bypassed in the interest of the economy.

3. Comparison between EIA Notification 1994 and 2006 for tourism projects

Sl. No.	EIA 1994 Notification	EIA 2006 Notification
1. Tourism and EIA	‘Tourism’ and ‘hotels’ find a place in the schedule of activities requiring a mandatory environmental clearance.	‘Tourism’ does not find a mention in the schedule of activities.
2. Scope of	The EIA Notification, 1994 regulated construction and expansion of tourism	The construction of new tourism projects and expansion of existing ones still

<p>the Notification re tourism</p>	<p>projects.</p> <ul style="list-style-type: none"> ➤ It was mandatory for construction and expansion of tourism projects in hilly (above 1000 m) and coastal areas (200-500 m from high water line). ➤ Tourism projects located above 1000 m were required to seek an environmental clearance if their investment exceeded Rs.5 crores. ➤ Legal opinion is divided on whether tourism projects located at 200-500 m HWL also required a minimal investment of above Rs.5 crores for mandatory environmental clearance. ➤ Other sectors ports, harbours, airports, highways, roads in forests and Himalayas, are some of the other sectors which provide infrastructural support to the tourism and required environmental clearance as per the 1994 Notification. ➤ Railways were exempted. ➤ In 1997, public hearings became mandatory for all EIAs thus expanding the scope for public participation. ➤ In 2004, hotels were brought under the EIA scanner irrespective of their geographic location; if they provided for more than a thousand people or discharged more than fifty thousand litres of sewage per day or involved investment of more than Rs. 50 crores. (S.O.801 (E), 7 July, 2004). 	<p>requires environmental clearance under a more general sector of ‘Building and Construction Projects (item 8a) and Townships and Area development Projects (item 8b)’.</p>
<p>3. Validity and time period of the prior EIA clearance</p>		<p>The prior environmental clearance granted for a project or activity shall be valid for a period of five years in the case of projects and activities (ten years for river valley projects). It is mandatory for the project management to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions.</p>
<p>4. Content of the EIA</p>	<p>No provision in place to cover landscape and visual impacts in the regulations</p>	<p>No provision in place to cover landscape and visual impacts in regulations, which is critical for sustainable tourism.</p>
<p>5. EIA Experts</p>	<p>Lack of trained tourism specific EIA professionals resulting in poor quality and inadequate EIA reports.</p>	<p>Preparation of EIA. Lack of trained tourism specific EIA professionals resulting in poor quality and inadequate</p>

	EIA reports. The ‘experts’ or consultants are selected based on the fees charged and rarely for their expertise.
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As tourism is not a category specifically mentioned in EIA notification, 2006, the other category within which tourism projects can be mandated to obtain an EIA clearance is

“Physical Infrastructure including Environmental Services”. More specifically, the projects listed in the Schedule that have a bearing on the tourism industry are –

i) 7 (a) Airports; (All projects – CEAC)

While an EIA is required for all airports, new forms of air transport such as sea planes also need to be brought under the ambit of the EIA. Similarly would be the construction of air strips and helipads in ecologically sensitive areas.

ii) 7 (c) Industrial estates/parks/complexes/areas, EPZs, SEZs, Biotech Parks, Leather Complexes.

Category A

- Under this, projects will apply to CEAC for clearance, if any one industry sought to be located within it falls within the domain of the CEAC, irrespective of the area.
- Industrial estates with area greater than 500 ha. and housing at least one Category B industry.

Category B

- Industrial Estates housing at least one category B industry and area that is lesser than 500 ha.
- Industrial Estates of area greater than 500 ha and not housing any industry belonging to Category A or B.

It is likely that hotels and other business tourism related industries are located within such industrial estates and complexes. The notification permits large projects beyond 500 ha. area to obtain a clearance from the SEAC if it contains any industry that falls within the category A or B of the notification. Flowing from this, it is very likely that Special Tourism Zones (STZs) or Special Tourism Areas (STAs) would obtain an environmental clearance from the SEAC.

Here to make a point of the cumulative impact of the industries and not to be seen in isolation of one another.

iii) 7 (e) Ports, Harbours – The CEAC grants clearance for projects with greater than 5 million TPA of cargo handling capacity (excluding fishing harbours), while the SEAC grants clearance for projects that have less than 5 million cargo handling capacity and/or ports/ harbours greater than 10,000 TPA of fish handling capacity.

iv) 7 (f) Highways –

- Category A – CEAC grants clearance for new National Highways and for the expansion of highways greater than 30 kms, involving additional right of way greater than 20 m requiring land acquisition and passing through one or more states shall obtain clearance from CEAC)
- Category B – SEAC grants clearance for new State Highways and expansion of highways greater than 30 km involving additional right of way greater than 20 m involving land acquisition.

v) 7 (g) Aerial ropeways – The SEAC grants clearance for all projects.

vi) 8 (a) Building and Construction projects - Category B: greater than 20000 sq.mtrs and lesser than 1,50,000 sq.mtrs. of built-up area; in the case of facilities open to the sky, it will be the activity area. Most tourism projects (Accommodation units, amusement parks water parks, golf courses), would fall under this category. Especially pertinent is the condition of 'facilities open to the sky, it will be the activity area' as not all tourism projects might have a built up area of more than 20000 sq mts, but in the coverage of land might occupy the area.

vii) 8 (b) Townships and Area Development projects - (b): Townships and Area Development Projects Category B: Covering an area greater than 50 ha and or built up area greater than 1,50,000 sq .mtrs

viii) The General Condition and the Special Condition contained in the Schedule is important for the tourism industry.

General Condition - It states that any project or activity specified in Category B will be treated as Category A, if located in whole or in part within the 10 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted Areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

Special Condition – It states that in the case of industrial estates, if any one industry has obtained clearance, the other individual industries do not require specific clearance. This may provide a loophole for many other industries located within the Industrial complex or park as they do not obtain clearance.

However the lack of a dedicated categorisation limits the process of EIA taking into account the multifarious impacts of tourism industry on the economic, social, cultural and ecosystems of a given project area. The 2006 notification reduces the categories to either infrastructure or industrial areas, thus diluting the focus of the EIA investigation. Thus a large number of projects that potentially have wide ranging impacts escape the scrutiny of an EIA process.

Some glaring contradictions, gaps and ambiguities with regard to tourism are highlighted below –

a) The tourism industry is not specifically identified and mentioned in the present Notification. As a result specific criteria as regards tourism and its impacts are largely ignored within the other broad categories that it is sought to be accommodated within.

b) No public participation is envisaged at the scoping stage.

c) No provisions to ensure and safeguard the access to vital information to the general public. The use of communication modes such as the posting of reports on the website limits access to local people.

d) The ‘General Conditions’ does not contain detailed criteria such as threshold limits.

e) “The Notification does not require any independent monitoring of the project’s compliance with clearance conditions and relies solely on half-yearly reports furnished by the project proponent. Moreover, the new Notification completely ignores the need for effective enforcement of clearance conditions. For example, there is no mention of when penalties should be imposed or when and how clearance may be revoked.”

4. Environmental Clearance Criteria

The MoEFCC in association with the Administrative Staff College of India (ASCI) and IL&FS prepared 37 sector specific manuals for the various sectors listed under the EIA 2006 Notification. These Manuals serve as Guidance Manuals to various Sector specific Expert Appraisal Committees at the Centre and to State/UT Environmental Impact Assessment Authorities (SEIAAs) and State Level Expert Appraisal Committees (SEACs) in the various States, assigned the task of screening, scoping and appraisal of projects of various sectors for grant of environmental clearance (EC). These Manuals help in standardisation of the quality of appraisal and in further harmonization in appraisal of projects by EACs/ SEACs/ SEIAAs in granting ECs for various projects at the Central and State level. While tourism as a sector does not have a dedicated manual, the following sectors that have a bearing on tourism, either directly or indirectly, are covered and these include – airports, ports and harbours, building construction and townships, aerial ropeways.

No specific set of criteria exist for clearing tourism projects. As most tourism projects are being covered under the category of infrastructure, this section only examines the criteria applicable to them. Criteria as applicable to all infrastructure projects

Mandatory criteria

Sustainable Site Planning - Site Selection

- Land Use- The land use in the site should be as per Master Plan / Local Development Plan. If the Master plan is not available then UDPFI (Urban Development and Plans Formulation and Implementation) guidelines should be followed.
- Ambient environment quality- The project design shall ensure that the occupants of sites where the environment is already polluted are safeguarded against the adversities. Pre-construction - air, water and noise quality shall be monitored and it shall be ensured that the ambient environment quality is minimally impacted upon by the proposed construction.

The governing standards for air, water and noise are as below:

- Air quality standards as per IS-5182,
- Drinking water standards as per IS: 10500-1991
- Construction water standards as per CPWD

Specifications

- Ambient noise standards as per Central Pollution Control Board (CPCB)
- The proponent shall also take suitable measures to ensure improvement of environmental quality (if the ambient standards are not met) through suitable mitigation measures.
- Infrastructure- There must be a justification and proof of the availability of water, energy, waste disposal and transport network for the sustainability of the project.

Site Analysis and planning

- Site Planning- Site planning must have consideration for efficient utilization of existing resources, i.e., the sunlight, wind etc. It must be ensured that solar access and wind access to neighbouring developments is minimally impacted upon due to the proposed construction.
- Analysis should be carried out to ensure that there is adequate solar and wind access for the proposed buildings.
- Conservation of soil – Fertility of top soil shall be tested to check appropriateness of top soil preservation and re use.

This test is mandatory for sites having area more than 1000 hectares. If suitable, preservation and re use of top soil should be done, as per National building code 2005.

- Landscaping- The existing landscape (e.g mature trees) must be preserved to the extent feasible, during construction and during use. Sustainable landscape practices should be adopted to ensure erosion and sedimentation control, storm water management, minimized heat island effects and water conservation. Attempt shall be made to minimally disrupt natural site features e.g landforms, contours etc.
- Health and well being of construction workers- Minimum level of hygiene must be maintained over the site by providing the basic services in terms of safe drinking water supply, sanitation facilities, etc. Construction safety norms as recommended by National Building Code shall be followed.

Water Demand Management - Building (Internal) Demand Management

- Water availability: Water demand for the building (internal use only) shall not exceed limits as defined by the National Building Code 2005.
- Quality of water – The water quality for drinking purposes shall meet standards defined by IS 10500-1991 and water quality for other uses shall meet CPCB standards.
- Fixtures – Low flow/ dual flushing devices should be used for water closets.

Landscape water quality

- Quality of water – Quality of water for gardening should meet quality standards as per IS 11624-1986

Wastewater

- Separation of grey and black water- Separation of grey and black water must be done by the use of dual plumbing line for separation of grey and black water.
- Treatment- The treated waste water shall meet with CPCB standards for discharge. The grey and black water must be piped in separate line and there must be 100 per cent treatment of grey water and re use for flushing, gardening etc.

Rainwater harvesting

- Storm /rain water control and re use is mandatory and the system must be as per Central Ground Water Board (CGWB) and Bureau of Indian Standards (BIS standards) for reuse in various applications.

Plan - Hierarchy of Road

- The road pattern and hierarchy must meet with the standards as recommended by Indian Road Congress (IRC)

Traffic Calming measures - Traffic calming measures must be taken in all the sensitive zones to reduce noise and air pollution, and to improve safety.

- Safety for vulnerable road users- The traffic system must be made safe for vulnerable road users by providing footpath, bicycle track, foot- over bridges and subways and ramps.
- Traffic system must be accessible and usable for people with disability.
- Entry and exit design – The entry and exit to the site should be designed with precision so as to ensure that the development does not disturb traffic on adjoining/abutting Street.
- Parking norms- The metropolitan cities in India must follow the Parking policy as defined by latest master plan for Delhi.
- The other cities should follow the norms given in the NBC, i.e., National Building Code 2005 / UDPFI Guidelines/local building bye laws, whichever is higher.

Site Transportation (During construction/ demolition)

- Norms for Emission- Construction equipment and heavy duty vehicles must conform to pollution norms as per CPCB.

- Adequate measures to reduce air and noise pollution during construction should be taken. CPCB norms and standards should be followed in this aspect.

Waste Management

Construction and Demolition Waste

- Onsite Provisions- There must be adequate space for separate storage of waste on construction site. Along with this, on site pre processing of collected waste through grinding and pulverising must be given adjoining to the storage areas.

Municipal Waste

- Storage facilities- There must be provision for separate collection and segregation of household waste, waste from offices and landscape waste in the form of three-bin system in houses. Community level space for separate dustbins as per land use pattern and class of city should be provided.
- Disposal- Suitable waste disposal technique should be planned and implemented.

Hazardous Waste

- Storage facility- There must be a permanent and durable space for collection and disposal of paints, asbestos dust and other hazardous wastes.

E-waste

- Storage facility- E-waste is generated occasionally, so there must be provision for its storage at community or group level. Depending upon the office type, the developer or owner must make a long time contract with the manufacturer of electronic items supplier or the recycling industry for sending the wastes. Architectural design must include the space for storage of e-waste, according to the type of office, and e-product usage.

Energy conservation - Solar Passive Architecture

- Strategies- The climatic zones have been defined by the National Building Code 2005. Passive strategies as required in the specific climatic zone should be applied.
- Day lighting- BIS standards for day lighting design should be followed.

Building Envelope requirement

- Roof design- Roof should meet prescriptive requirement as per Energy Conservation Building Code (download from www.bee-nic.in) by using appropriate thermal insulation material to fulfil requirement.
- Walls- Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is mandatory for all air-conditioned spaces. Vertical fenestration should comply with the maximum area weighted U-factor as per Energy Conservation Building Code which is mandatory for all air-conditioned spaces.
- Vertical fenestration - Vertical fenestration should comply with maximum area weighted SHGC requirements to meet prescriptive requirement as per Energy Conservation Building Code by use of appropriate solar control strategies.
- Skylights – Skylights shall comply with the maximum Ufactor and maximum SHGC requirements to meet prescriptive requirement as per Energy Conservation Building Code by use of efficient glazing material to reduce heat gain through skylight
- Glazing- For all day use buildings glazing products must have the minimum visual transmittance (VT), defined as function of WWR, where Effective Aperture >0.1, equal to or greater than the Minimum VT requirements and to meet prescriptive requirement as per Energy Conservation

Building Code - Building Lighting Demand Management

- Lighting load- Lighting load must not exceed the specified light power densities (for the specific building type or space function) as per Energy conservation Building Code. Use of energy efficient lamps, luminaries and electronic ballasts is recommended to achieve the desirable LPDs
- Lighting equipment for common areas - Energy efficient lamps (e.g compact Fluorescent Lamps (CFL) or energy efficient tube lights which use electronic ballasts) should be used for internal, Common Area and Exterior Lighting.
- Day lighting controls- Use of maximum day lighting is mandatory for day use buildings by day linking lights in day lit areas (by use of daylight sensors) to avail energy savings.
- Lighting level- Minimum level of lighting should be maintained as per NBC 2005.

Water heating

- Service water heating by use of renewable energy sources (e.g solar) should be done as per Energy Conservation building Code Building HVAC system.
- Ventilation- Minimum ventilation rate in the building for heat load estimation should be maintained as specified by National Building Code 2005.
- Refrigerant- Refrigerant used in air conditioning machines must be as per India's commitment to Montreal protocol.
- Equipments- Cooling & heating equipment must conform to minimum efficiency requirement as per the Energy Conservation Building Code.

Building Electrical System

- Power loss in transformers- Power loss in transformers should be minimized as per Energy Conservation Building Code by use of transformers constructed with high quality grain oriented silicon steel and virgin electrolytic grade copper
- Electric motors- Electric motors must ensure the standards given by Energy conservation Building Code by use of energy efficient motors.
- Power factor- Power factor must be maintained as per Energy conservation Building Code by use of auto power factor correction relays.
- D.G. Sets- Diesel generating sets must meet the norms of CPCB. Suitable stack heights shall be provided as recommended by the CPCB.

As these norms lack the specific tourism focus, criteria that would take into account the socio-cultural and ecological impacts of tourism infrastructure are not listed. In particular, an EIA of tourism projects should address specific concerns pertaining to environmental standards and norms, land use and resource use norms, assess the potential direct, indirect and cumulative effects of the particular project on not just the environment but the socio-economic and cultural impacts of the project site. It should also contain a critical component on the mitigation plan and the monitoring of the selected sites so as to be effective. However, the current dilution of standards for regulating tourism industry is likely to have long term repercussions across the country.

5. Identification of contradictions, gaps and ambiguity within the Notification with links to tourism.

The lack of a dedicated categorisation limits the process of EIA taking into account the multifarious impacts of tourism industry on the economic, social, cultural and ecosystems of a given project area. The 2006 notification reduces the categories to either infrastructure or industrial areas, thus diluting the focus of the EIA investigation. Thus a large number of projects that potentially have wide ranging impacts escape the scrutiny of an EIA process.

Some glaring contradictions, gaps and ambiguities with regard to tourism are highlighted below –

- a) The tourism industry is not specifically identified and mentioned in the present Notification. As a result specific criteria as regards tourism and its impacts are largely ignored within the other broad categories that it is sought to be accommodated within.
- b) No public participation is envisaged at the scoping stage.
- c) No provisions to ensure and safeguard the access to vital information to the general public. The use of communication modes such as the posting of reports on the website limits access to local people.
- d) The ‘General Conditions’ does not contain detailed criteria such as threshold limits, etc.

Conclusion

The lack of easily aggregated data on the environmental clearance makes the task of analysis difficult. The Annual Reports of the MoEFCC indicate the figures for environmental clearance under the broad categories but no information on the sub-categories are available.

“From 1986 to 2006 the MoEFCC cleared 4,016 projects. However, between September 2006 and August 2008, the MoEFCC granted clearance to 2,019 projects. For the period between January 2008 and February 2009, the number of clearances was the highest at 2,586. Such manifold increases can be traced to the “re-engineering” done to the EIA notification of 1994.” “The impact of this streamlining and speeding up of a qualitative decision making process such as the EIA has been debilitating on two grounds. First is the shockingly low rejection rate under this “streamlined” process. For the period from September 2006 to August 2008, the rate of rejection was an appalling 1.2%! This includes projects that were sent back for review/ reconsideration. For the period between January 2008 and February 2009, the rejection rate was minuscule at 0.8%. Such low rates of rejection should lead to a questioning of whether this process allows any possibility of discerning the varied impacts of the proposed projects.” (Menon & Kohli, 2009)

With regard to tourism projects, the majority of the hotels and resorts are seeking EIA clearance under item 8 (a) or (b) of the Schedule. In the past few years, a couple of Ropeway projects have been set up in Uttarakhand and Maharashtra, which requires clearance from the SEAC. Significantly of the 79 projects listed in a compilation by EQUATIONS of tourism projects that have sought and obtained clearance for the 2008-09, there are no rejections. A further study of this trend and the impact needs to be undertaken.

Annexure 1

Legislation	Interface with EIA	Authority and Compliance
Air (Prevention and Control of Pollution) Act, 1974	As per the Air Act, all construction work contractors/ project proponents need to obtain Consent for Establishment (CFE) and Consent for Operation (CFO) for plants (e.g. concrete batching, stone crushing, hot mix and other machinery such as diesel generators) that may be required for the purpose of construction on site.	NOC, CFE and CFO from SPCB Comply with Emission Standards
Water (Preventions and Control of Pollution) Act, 1981	As per the Water Act, all construction work contractors/ project proponents need to obtain Consent for Establishment (CFE) and Consent for Operation (CFO) for plants (e.g. concrete batching, stone crushing, hot mix and other machinery such as	NOC, CFE and CFO from SPCB Comply with Water Quality Standards

	diesel generators) that may be required for the purpose of construction on site.	
Noise Pollution (Regulation and Control) Rules, 2000	All development authorities, local bodies, and other concerned authorities while planning developmental activity or carrying out functions relating to town and country planning shall take into consideration all aspects of noise pollution as a parameter of quality of life to avoid noise menace and to achieve the objective of maintaining the ambient air quality standards in respect of noise. Based on the Rules, an area comprising not less than 100 meters around hospitals, educational institutions may be declared as silence areas/ zones.	
Forest (Conservation) Act, 1980	Diversion of forest areas and felling of trees would require permission under the Act. Compensatory Afforestation is compulsory under the Act.	No Objection Certificate
Wildlife (Protection) Act, 1972	In case of projects within a Wildlife Sanctuary or National Park, clearance is required under the Wildlife Protection Act. The State or National Wildlife Board under MoEFCC is authorized to grant a No Objection Certificate (NOC) for any construction within a sensitive Area.	Approval From MoEFCC
Forest Rights Act, 2006	Consent of the community	Gram Sabha
Panchayats Extension to Scheduled Areas Act (PESA) 1996	Consent of the community	Gram Sabha
Land Acquisition Laws – Central and State	Plan resettlement and rehabilitation of Project Affected Families	
Wetland (Conservation and Management) Rules, 2010	Steps has to be taken to prevent / stop untreated sewage (industrial, town waste) entering the wetland through storm drains	Forest Department; Municipal Corporation; SPCB
Ancient Monuments and Archaeological Sites and Remains Rules, 1959	The Rules designate areas within a radius of 100m and 300m from the monuments and protected property as protected or controlled area. No development activity (including mining operations and construction) is permitted in the protected area and all development activities likely to damage the protected property are not permitted in the controlled area without prior permission of the Archaeological Survey of India (ASI).	Archaeological Survey of India (ASI)

In addition to national and state rules and regulations, international conventions such as the International Union for Conservation of Nature and Natural Resources (IUCN), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Migratory Species of Wild Animals (CMS), Ramsar Convention on Wetlands of International Importance and Millennium Development Goals are applicable for selection and screening of projects under restricted/sensitive areas. India is a party to these conventions.

ENDNOTES

i Primary researcher: Roopa Madhav and EQUATIONS, November 2014 (1st draft). The paper was finalised in March 2016.

ii Suresh Kumar Kundur and Dr. Krishna Murthy, Environmental Impacts of Tourism and Management in Maldives, International Journal of Environmental Sciences Vol. 2 No. 1. 2013. Pp. 44-50

iii Coastal Wiki at

http://www.coastalwiki.org/wiki/Impact_of_tourism_in_coastal_areas:_Need_of_sustainable_tourism_strategy

iv Dr. Yashpal Singh, Guidelines for Environmental Clearance E.I.A.(under the Notification of 2006) to projects involving diversion of Forest Lands and Wild Life Areas.

v Source: Presentation of Ministry of Environment & Forests at Promoting Excellence for Sustainable Development, Sustainability Summit: Asia 2006

vi "Paragraph 7 (i) III (i) of the EIA Notification – 2006 allows the following projects to forego the whole public consultation process:“(a) modernisation of irrigation projects (item 1 (c) (ii) of the Schedule). (b) all projects or activities located within industrial estates or parks (item 7 (c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals. (c) expansion of Roads and Highways (item 7 (f) of the Schedule) which do not involve any further acquisition of land. (d) all Building /Construction projects/Area Development projects and Townships (item 8).34(e) all Category ‘B2’ projects and activities. (f) all projects or activities concerning national defence and security or involving other strategic considerations as determined by the Central Government.” (ESG, Green Tapism)

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